Daniel E. Little, PhD
Chancellor
University of Michigan-Dearborn

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This Catalog of UM-Dearborn is a fundamental source of information concerning academic opportunities, policies, regulations, and procedures. It is each student's responsibility to become familiar with the information contained herein.

Information in this Undergraduate Catalog is as of July 2013. Every care has been taken to insure its accuracy; however, the University cannot be responsible for errors and reserves the right to change programs, requirements and policies at any time after the publication of this Catalog. Current information is available through Unit and Departmental Offices.
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- Key to Course Listings

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- Arab American Studies (AAST)
- Arabic Studies
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- Art History
- Art History (ARTH)
- Astronomy
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- Behavioral Sciences
- Behavioral Sciences (BSCI)
- Biochemistry
- Biochemistry (BCHM)
- Biological Sciences
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- Chemistry
- Chemistry (ACS Approved)
- Chemistry (Instructional Track)
- Chemistry (CHEM)
- Communication
- Communication (COMM)
- Comparative Literature
- Comparative Literature (COML)
- Composition &Rhetoric
- Composition (COMP)
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- Computer & Computational Mathematics (CCM)
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- Criminal Justice Studies
- Criminal Justice Studies (CRJ)
- Earth Sciences
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- Environmental Science
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2013-2015 Academic Calendar **

FALL TERM 2013

Regular Registration Begins* .................................. Monday, April 22
Labor Day (Holiday) ........................................... Monday, September 2
Classes begin .................................................. Wednesday, September 4
Thanksgiving recess
....................................................... Thursday-Sunday, November 28 - December 1
Classes resume ........................................... Monday, December 2
Classes end ................................................... Tuesday, December 10
Study Day .................................................. Wednesday, December 11
Examinations ........................................... Thursday-Friday, December 12-13
..................................................... Monday-Wednesday, December 16-18
Commencement ........................................... Saturday, December 14

WINTER TERM 2014

Regular Registration Begins* ................................. Monday, December 9
Classes begin ........................................... Monday, January 6
Martin Luther King, Jr. Birthday
No Regular Classes ........................................ Monday, January 20
Spring recess .................................. Sunday-Sunday, February 23-March 2
Classes resume ........................................... Monday, March 3
Dearborn Honors Convocation ............................ Tuesday, March 25
Classes end ................................................ Friday, April 18
Study day ............................................... Saturday, April 19
Examinations ........................................... Monday-Saturday, April 21-26
Commencement ........................................... Sunday, April 27

SUMMER TERM 2014

Regular Registration Begins* ................................. Monday, April 21
Classes begin ........................................... Monday, May 5
Memorial Day (Holiday) ..................................... Monday, May 26
Classes end (7-week classes) .............................. Monday, June 23
Study Day ................................................ Tuesday, June 24
Examinations (7-week classes) ..................... Wednesday-Friday, June 25-27
Summer Recession ................................ Tuesday-Sunday, June 24-29
Classes resume (7-week and 14-week classes)  .... Monday, June 30
Independence Day (celebrated) ............................. Friday, July 4
Classes end (7-week and 14-week classes) .......... Friday, August 15
Study Day ............................................. Saturday, August 16
Examinations ........................................ Monday-Friday, August 18-22

FALL TERM 2014

Regular Registration Begins* ................................. Monday, April 21
Labor Day (Holiday) ........................................... Monday, September 1
Classes begin ........................................... Wednesday, September 3
Thanksgiving recess
..................................................... Thursday-Sunday, November 27-30
Classes resume ........................................... Monday, December 1
Classes end ............................................... Tuesday, December 9
Study Day ............................................... Wednesday, December 10
Examinations ........................................... Thursday-Friday, December 11-12
..................................................... Monday-Wednesday, December 16-18
Commencement ........................................... Saturday, December 14

WINTER TERM 2015

Regular Registration Begins* ................................. Monday, December 8
Classes begin ........................................... Monday, January 5
Martin Luther King, Jr. Birthday
No Regular Classes ........................................ Monday, January 19
Spring recess ................................................ Sunday-Sunday, February 22-March 1
Classes resume ........................................... Monday, March 2
Honors Scholars ........................................... Tuesday, March 31
Classes end .............................................. Friday, April 17
Study day ................................................ Saturday, April 18
Examinations ........................................... Monday-Friday, April 20-24
Commencement ........................................... Sunday, April 26

SUMMER TERM 2015

Regular Registration Begins* ................................. Monday, April 20
Classes begin ........................................... Monday, May 4
Memorial Day (Holiday) ..................................... Monday, May 25
Classes end (7-week classes) .............................. Monday, June 22
Study Day ................................................ Tuesday, June 23
Examinations (7-week classes) ..................... Wednesday-Friday, June 24-26
Summer Recession ................................ Tuesday-Sunday, June 23-June 28
Classes resume (7-week and 14-week classes) .... Monday, June 29
Independence Day (celebrated) ............................. Friday, July 3
Classes end (7-week and 14-week classes) .......... Friday, August 14
Study Day ............................................. Saturday, August 15
Examinations ........................................ Monday-Friday, August 17-21

*Check umd.umich.edu/registration for early registration dates.
**Dates are subject to change at any time by the Board of Regents.
Campus Map
University of Michigan Dearborn

REGENTS OF THE UNIVERSITY
Mark Bernstein, Ann Arbor
Julia Donovan Darlow, Ann Arbor
Shauna Ryder Diggs, Grosse Pointe
Laurence B. Deitch, Bloomfield Hills
Denise Ilitch, Bingham Farms
Andrea Fischer Newman, Ann Arbor
Andrew C. Richner, Grosse Pointe Park
Katherine E. White, Ann Arbor
Mary Sue Coleman, ex officio

EXECUTIVE OFFICERS OF THE UNIVERSITY
Mary Sue Coleman, BS, PhD., President
Daniel Little, AB, PhD., Chancellor, University of Michigan-Deerborn
Sally J. Churchill, JD, Vice President and Secretary of the University
Stephen R. Forrest, PhD., Vice President for Research
E. Royster Harper, BS, MA, Vice President for Student Affairs
Timothy Lynch, JD, Vice President and General Counsel
Jerry A. May, BA, M.Ed., Vice President for Development
Ruth J. Person, MA, PhD., Chancellor, University of Michigan-Flint
Ora Hirsch Pescovitz, MD, Executive Vice President for Medical Affairs
Martha E. Pollack, Ph.D., Provost and Executive Vice President for Academic Affairs
Lisa Rudgers, BA, Vice President for Global Communications and Strategic Initiatives
Timothy P. Slottow, BA, MBA, Executive Vice President and Chief Financial Officer
Cynthia H. Wilbanks, AB, Vice President for Government Relations

UNIVERSITY OF MICHIGAN-DEARBORN SENIOR OFFICERS
Daniel E. Little, PhD., Chancellor
Catherine A. Davy, PhD., Provost and Vice Chancellor for Academic Affairs
Mallory M. Simpson, MA, Vice Chancellor for Institutional Advancement
Kenneth Kettenbeil, BA, Vice Chancellor for Government Relations
Jeffrey L. Evans, MBA, Vice Chancellor for Business Affairs
Stanley E. Henderson, MA, Vice Chancellor for Enrollment Management and Student Life
Ray Metz, MLS, Chief of Staff

ACADEMIC DEANS
Raju Balakrishnan, PhD., College of Business
Martin J. Hershock, PhD., College of Arts, Sciences, and Letters
Tony England (Interim), PhD., College of Engineering and Computer Science
Edward A. Silver, EdD, College of Education, Health, and Human Services

DIRECTORS
Katherine M. Allen, MBA, Director of Financial Aid and Scholarships
Drew B. Buchanan, PhD., Director of Research & Sponsored Programs
Shareia N. Carter, MLS, Director of Women’s Resource Center
Trista Wdziekonski, MA, Director of Graduate Studies
Kristine L. Day, MS, Interim Director of University Center Operations
Robert Goffeney, MBA, Director of Information Technology, Strategy and Operations
Richard F. Gordon, MPA, Director of Campus Safety
Roma M. Heaney, MA, Director of Institutional Research
Noel G. Hornbacher, MBA, Director of Financial Services and Budget
William Keener, MA, Director of Academic Support and Outreach Services and Director of the Tutoring Center
Janice L. Lewis-Boyd, BGS, Univeristy Registrar and Director of Enrollment Services
Elaine M. Logan, MILS, Director of the Mardigian Library
Margaret M. Pattison, BS, Director of Alumni Relations
Deb K. Peffer, MA, Director of Admissions and Orientation
Kathleen M. Pepin, BS, Director of Facilities Planning
Reetha Peranamgam, MA, Director of Student Engagement
Ann Y. Lampkin-Williams, PhD., Interim Director of Athletics and Recreation
David A. Schroat, PhD., Director of Counseling Support Services
Regina M. Storrs, MA, Director of Career Services
David J. Susko, PhD., Director of Environmental Interpretive Center
Ginny Zarras, BA, Director of Human Resources/Affirmative Action
Carol L. Glick, P.E., MS, Director of Facilities Management

CITIZENS ADVISORY COMMITTEE
Brian M. Connolly
Stephen T. Economy
Mark T. Gaffney
Paul C. Hillegonds
Rich Homberg
Arthur M. Horwitz
Hassan Jaber
Gail Mee
Patricia Mooradian
Shirley Stancato
How to Use the Undergraduate Catalog

This Catalog is divided into five sections:

- General Information
- College of Arts, Sciences, and Letters
- College of Business
- College of Engineering and Computer Science
- College of Education, Health, and Human Services

This Catalog of the University of Michigan-Dearborn is a fundamental source of information concerning academic opportunities, policies, regulations, and procedures. It is each student's responsibility to become familiar with the information contained herein.

WHERE TO FIND INFORMATION

The General Information section of this Catalog is divided into seven main areas:

- Admissions
- Financial Aid
- Registration and Records
- Policies and Procedures
- Special Programs
- Campus Services
- Student Rights and Responsibilities

The College of Arts, Sciences, and Letters, College of Business, College of Engineering and Computer Science, and College of Education, Health, and Human Services sections contain: specific regulations and procedures which may be unique to that academic unit; information regarding programs, degrees and courses offered; and a plan for electing courses to fulfill undergraduate degree requirements.

KEY TO COURSE LISTINGS

The heading for each course listing contains the following information.

**Discipline and Course Number**

Courses are numbered in accordance with a University-wide numbering system: courses numbered 100 to 199 are introductory; courses 200 to 299 are intermediate; courses 300-499 are advanced (upper division).

**Course Title**

The bold face course title follows the course number.

**Credit Hours**

Credit hours at the University of Michigan-Dearborn are based on semester hours. The number of credit hours for each course is listed below the title.

**Prerequisite**

Prerequisites to the course normally appear below the title and credit hours, although they may sometimes be included in the course description. They should be completed before the course is elected.

Concurrent Courses

Courses listed in the prerequisite section with an asterisk (*) indicate those that may be taken concurrently with the course listed.

**FREQUENCY OF OFFERING**

The following abbreviations are used to denote the frequency of offering: (F) fall term; (W) winter term; (S) summer term; (F, W) fall and winter terms; (YR) once a year; (AY) alternating years; (OC) offered occasionally.
The University of Michigan-Dearborn

The University of Michigan-Dearborn is one of the three campuses of the University of Michigan operating under the policies of the Board of Regents.

The campus, located on the former estate of automotive pioneer Henry Ford, was founded in 1959 as a senior-level institution offering junior, senior and graduate-level courses and degrees. In 1971, UM-Dearborn became a comprehensive university campus offering four-year degree programs in liberal arts and sciences and graduate programs at the master's degree level.

More than 9,000 highly selective students, representing a wide range of academic interests and diverse backgrounds, are currently enrolled at the UM-Dearborn.

As part of the University of Michigan, UM-Dearborn enjoys an association with a large multi-university and the advantages of moderate size. Through expanded evening course offerings, professional development programs and cooperative education programs, UM-Dearborn continues to respond to the educational needs of commuting students from the Detroit metropolitan community.

Mission and Values

UM-Dearborn is an interactive, student-centered institution committed to excellence in teaching and learning.

We offer undergraduate, graduate, and professional education to a diverse and talented student body. Our programs are responsive to the challenging needs of society; relevant to the goals of our students and community partners; rich in opportunities for independent and collaborative study, research, and practical application; and reflective of the traditions of excellence, innovation, and leadership that distinguish the University of Michigan.

We accomplish this mission by:

- Providing a strong foundation in the liberal arts and sciences;
- Providing the knowledge and skills essential for career and personal success;
- Integrating teaching, research, and service in ways that enhance the learning experience;
- Promoting internships and cooperative education;
- Providing a dynamic environment where innovation, openness, and creativity are fostered;
- Using advanced technologies to meet changing educational needs and establish links with the global community; and
- Forging partnerships with business, industry, educational institutions, and government agencies.

We strive to be the institution of choice in southeastern Michigan for individuals and organizations that value accessibility, flexibility, affordability, diversity, and preeminence in education.

Goals for the Undergraduate Experience

Undergraduate education at the University of Michigan-Dearborn is based on the belief that the benefits of academic work are enhanced when classroom and intellectual rigor interact with community engagement and experiential learning. The University of Michigan-Dearborn is uniquely situated to address the complex challenges facing the metropolitan region by offering students rigorous academic offerings as well as the opportunity to apply that knowledge in real-world situations. Our goal is to graduate students who are able to apply theoretical and discipline-specific knowledge to discover creative solutions to problems and to successfully communicate those ideas both individually and as a part of a collaborative effort.

Undergraduate programs at UM-Dearborn provide students with the opportunity to develop particular skills and abilities; to think critically and creatively to solve problems; to cultivate an appreciation of aesthetic and ethical values; and to acquire both breadth of knowledge and the depth of understanding gained through the study of one or more academic disciplines. The UM-Dearborn faculty has a common commitment across units to provide students with foundational knowledge through content-specific courses, extra-curricular activities, and community-oriented experiences. Each of these goals corresponds to Association of American Colleges and Universities (AAC&U).

The goals for undergraduate student learning and experiences at UM-Dearborn are:

- Core Knowledge
- Critical and Creative Thinking
- Communication
- Collaboration
- Cultural Understanding
- Citizenship

GOALS

1. Core Knowledge

Undergraduate student learning goal #1, “Core Knowledge,” acknowledges that, each discipline at the University of Michigan-Dearborn, requires students to gain knowledge of and experience with their chosen academic discipline. Although the content-area goals within each discipline will likely be unique, all degree programs share fundamental educational values that include:

- acquiring rigorous, discipline-specific inquiry skills,
- learning to apply theories to and construct models for addressing real-world problems,
- discussing and producing intellectual work using discipline-specific conventions for writing, research and communicating.

2. Critical and Creative Thinking

Undergraduate student learning goal #2, “Critical and Creative Thinking,” acknowledges the students’ need to gain experience in problem solving, and to engage in analysis, synthesis and evaluation in creative ways using an ethical framework. Development of such habits of mind will be demonstrated by:

- the ability to seek information and use inquiry to systematically explore situations, collect and analyze evidence, and make informed evaluations.
• the synthesis of knowledge within and across courses and programs and the integration of theory and practice.
• the ability to use qualitative and quantitative reasoning to develop a clear understanding of the problem being studied.
• the generation of creative solutions to problems through original, imaginative, innovative, or artistic effort.
• the ability to use ethical reasoning to generate meaningful solutions to problems.

3. Communication
Undergraduate student learning goal #3, “Communication,” recognizes that there are a wide variety of modes of communication, including written and oral communication that are continually being shaped and expanded through rapid changes in technology. Student mastery of these myriad ways of communicating ideas and intellectual products will be demonstrated through the development of:
• the ability to communicate clearly and effectively to an identified audience both in writing and orally.
• the creation of communication that demonstrates content knowledge, deep reflection, creativity and critical thinking.
• the appropriate use of technology in maximizing the clarity, impact and accessibility of student ideas.

4. Collaboration
Undergraduate student learning goal #4, “Collaboration,” acknowledges that collaborating with peers, faculty and community members is an important part of the learning process in all disciplines. This element in the University’s educational plan for students will be promoted by providing students the opportunity to:
• work actively and effectively as part of a team to answer questions and solve problems.
• develop the ability to critically and effectively evaluate the collaborative products and processes.
• grapple effectively with differences and diversity and resolve conflict that occurs in collaborative efforts.

5. Cultural Understanding
Undergraduate student learning goal #5 “Cultural Understanding.” acknowledges that appreciating global and cultural diversity within historical, artistic, and societal contexts is critical to individual and societal success in both professional and personal areas of life. Student achievement in this realm will be gained through:
• reflecting on experiences with diversity to demonstrate knowledge and sensitivity.
• demonstrating awareness of how diversity emerges within and across cultures.
• developing the ability to collaborate in a global setting through awareness of language and cultural differences.

6. Citizenship
Undergraduate student learning goal #6, “Citizenship,” recognizes that engagement occurs in many ways for students, and manifests itself in different ways for each academic program and discipline. Active meaningful student involvement in course, community and societal affairs will also encourage student lifelong learning by providing the opportunity to use their skills, abilities and knowledge in a variety of roles and environments. Acquisition of these skills will be promoted through:
• engagement in case-study, scenario analyses and problem solving activities.
• participation in curricular and co-curricular work integral to the metropolitan mission of UM-D.
• exposure to the diversity, strengths and challenges of the metropolitan community.
• experience in engaging in activities that emphasize the habits of lifelong learning.

GENERAL EDUCATION REQUIREMENT AND THE GOALS FOR UNDERGRADUATE LEARNING

One component of the undergraduate experience is the required coursework (called “distribution requirements” or “general education requirements”) taken by students in preparation for more focused and sustained work in their fields of choice. General education courses incorporate the six goals for undergraduate learning while focusing on building skills in written communication, critical thinking, quantitative reasoning and problem solving so as to prepare students for later coursework in their core disciplines. Each academic unit has developed the most appropriate mix of general education requirements and options for its own students.

Written Communication. Because writing plays a role in both the construction and transmission of knowledge, learning to write effectively about ideas is fundamental to undergraduate student learning. At the introductory level, students who complete general education requirements are expected to be able to use writing as a means of critical inquiry and as a way of engaging significantly with the kinds of texts typical of college-level courses. Students are also expected to be able to construct a structured and focused argument, to revise and edit their work in the light of particular audience demands, to draw on the insights of others and incorporate the results of research into their own writing, and to apply appropriate conventions of genre and voice. Introductory writing objectives include using basic computer-mediated expression as a form of communication.

Critical Thinking. General education courses help students to see relationships, similarities and differences among ideas, objects and phenomena; to identify central issues and assumptions in an argument; to make inferences from data; to deduce conclusions from information or data provided; to determine whether conclusions are warranted on the basis of the arguments and data given; and to recognize faulty reasoning and applying ethical standards. In addition, general education courses prepare students to determine the various implications that follow from accepting particular arguments and data, and to assess arguments in light of their own beliefs and values. Finally, these courses provide guided practice in strategies for accessing information effectively, and for analyzing, synthesizing, and applying it in new situations.

Quantitative Reasoning and Problem-Solving. Together with logical and critical reasoning skills, the ability to work with algebraic, geometric, logical and/or statistical concepts is essential for the study, advancement, and application of many fields of knowledge. General education coursework in quantitative disciplines help students to develop the ability to think logically using symbolic expression as well as deductive and inductive reasoning. Courses meeting this requirement also provide a disciplined introduction to build student skills in manipulating and presenting quantitative information.
The Campus

The UM-Dearborn campus was established in 1956 through a gift from the Ford Motor Company. The gift included approximately 196 acres of land, the Henry Ford Estate, and funds for the construction of four buildings totaling 226,770 gross square feet. The campus has grown considerably over the past 57 years and now includes the following facilities:

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<tr>
<td>Academic Support Center</td>
<td></td>
</tr>
<tr>
<td>Campus Support Services</td>
<td>Offices, support services</td>
</tr>
<tr>
<td>College of Arts, Science &amp; Letters</td>
<td>Offices, classrooms</td>
</tr>
<tr>
<td>Computer &amp; Information Science</td>
<td></td>
</tr>
<tr>
<td>Engineering Laboratory Building</td>
<td>Offices, classrooms</td>
</tr>
<tr>
<td>Environmental Interpretive Center</td>
<td>Offices, classrooms and Labs</td>
</tr>
<tr>
<td>Fairlane Center North and South</td>
<td></td>
</tr>
<tr>
<td>Fair Lane Cottages</td>
<td></td>
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<tr>
<td>Fair Lane Greenhouse</td>
<td></td>
</tr>
<tr>
<td>Fair Lane Pony Barn</td>
<td>Ice rink, recreation</td>
</tr>
<tr>
<td>Fair Lane Powerhouse / Visitor’s Center</td>
<td>Vehicle storage, offices</td>
</tr>
<tr>
<td>Fieldhouse/Ice Arena / Wellness Center</td>
<td>Offices, Labs</td>
</tr>
<tr>
<td>Gabriel Richard Center</td>
<td></td>
</tr>
<tr>
<td>Grounds Building</td>
<td></td>
</tr>
<tr>
<td>Heinz Prechter Engineering Complex</td>
<td>National historic landmark</td>
</tr>
<tr>
<td>Henry Ford Estate</td>
<td></td>
</tr>
<tr>
<td>Institute for Advanced Vehicle Systems</td>
<td>Labs, Offices</td>
</tr>
<tr>
<td>Manufacturing Systems Engineering Laboratory</td>
<td>Labs, offices</td>
</tr>
<tr>
<td>Mardigian Library</td>
<td>Library, offices, classrooms, Alfred Berkowitz Gallery</td>
</tr>
<tr>
<td>Monteith Parking Structure</td>
<td>Parking, storage</td>
</tr>
<tr>
<td>Professional Education Center</td>
<td>Offices, classrooms and computer Labs</td>
</tr>
<tr>
<td>Recreational &amp; Organization Center</td>
<td>Classrooms, Labs, offices</td>
</tr>
<tr>
<td>Science Building / Computer Wing</td>
<td>Classrooms, Labs, offices</td>
</tr>
<tr>
<td>Science Learning and Research Center</td>
<td>Classrooms, Labs, offices</td>
</tr>
<tr>
<td>Social Sciences Building</td>
<td>Classrooms, Labs, offices, stove</td>
</tr>
<tr>
<td>University Center</td>
<td>Offices food service, copy center, bookstore</td>
</tr>
</tbody>
</table>

The Mardigian Library offers a student-centered environment that fosters learning by providing access to authoritative sources of knowledge and information and by helping students learn critical information literacy skills and concepts. It gives faculty and students access to sources and knowledge via modern information technology, and our librarians teach students how to find their way in the ever-expanding universe of information and knowledge. The four-story Mardigian Library houses a 340,000-volume collection and provides web-based access to a multitude of research resources, including an online journal collection of 18,000 titles, 200 online research databases and over 9,000 online books and approximately 1,200 student study stations. The facility also contains computer, audiovisual, and education laboratories, and a television studio. Librarians are accessible, either online or in person, to help students with their research needs.

Spaces for recreational, intramural, and varsity athletics, as well as health and physical education classes, are provided in the Fieldhouse/Ice Arena and attached Wellness Center.

The Administration Building, the University Center, and the Campus Support Services building currently house support services for the campus.

The Professional Education Center houses professional and continuing education programs.

Capsule History of the University of Michigan-Dearborn

The first movement toward what was to become The University of Michigan-Dearborn began with some studies in the middle 1950’s of manpower supply conducted by Archie Pearson, director of training for Ford Motor Company. Convinced that serious shortages were looming for the Company in qualified, college-trained engineers and junior administrators, he made discreet inquiries of educational institutions in the Detroit area concerning their willingness to adjust their programs to meet these needs.

Pearson was particularly interested in a program with a cooperative education component that would provide several periods of full-time work experience, alternating with regular terms of professional academic study. However, his inquiries and those of his associates did not strike the responsive chord they were looking for until they were put in touch with members of the top administration at the University of Michigan. Thus in late 1955 began the negotiations between Pearson, his associates, and University of Michigan officials that led to the establishment of the Dearborn Center of the University of Michigan. During 1956, the details of the proposed campus were worked out by a Special Committee involving top administrators at both Ford Motor Company and the University of Michigan. The announcement on December 17, 1956 of a gift of land and capital development money from the Company to the University made it obvious that the focus of the agreement between the two was the building of an upper-division and master’s level campus of the University which would adopt the cooperative work-study requirement as a part of its regular degree program in engineering and business administration. The University was to provide the regular professional and liberal arts courses necessary to a University of Michigan bachelor's or master's degree, with the co-op work assignments forming an integral addition to the regular academic requirements. UM-Dearborn opened as the Dearborn Center of the University of Michigan on September 28, 1959.

The upper-division cooperative education program was the first important educational emphasis of what is now UM-Dearborn. Cooperative education is still a vital part of the professional programs, and not only has it expanded to include liberal arts...
students, but other kinds of off-campus experience for credit have been added as well. There are now regular program-related internships in political science, economics, social work, humanities, health sciences and public administration. Nevertheless, it became apparent in the early days that the campus could not afford to be limited to a single focus, and over the years it has gone through several stages of modifying its original purposes and structure.

From its inception in 1956 to about 1962, the cooperative education program was confidently set forth as a sufficient raison d'être for the campus, in spite of growing evidence that this admittedly fine and educationally sound opportunity was not drawing a sufficient number of students for economical use of the facilities. In February 1962, William Stirton, the University of Michigan Vice President who was the first chief executive of the UM-Dearborn, announced that cooperative education was being extended to the liberal arts areas on an optional basis, beginning in the fall term, 1962. In reality, however, very few liberal arts co-op work assignments were actually made before 1973, when the present liberal arts co-op program was officially established. Although this early attempt to extend the co-op program to liberal arts was an apparently small episode in the history of the campus, it constituted the last major attempt to build the campus solely on the basis of the co-op programs and the upper-division/graduate structure. Moreover, it came at about the same time as the change in the name of the institution from "Center" to "Campus" (to make its objectives seem less limited). Both events marked the beginning of a period in the middle sixties characterized by growing uncertainty about the future of the institution. This period ended in 1969 with the recommendations of the Ross Committee (also referred to as the Balzhiser Committee, and officially called the Dearborn Campus Planning Study Committee), which radically changed the direction of the campus.

The 1969 report of the Dearborn Campus Planning Study Committee, appointed by University Vice President for State Relations and Planning Arthur Ross to consider the future of the campus, recommended the addition of the first two years to become a full four-year institution and the expansion of non-co-op programs; it recommended other changes as well, most of which were implemented in 1971 to give the campus its present structure. It became at that time a four-year undergraduate institution (newly designated "The University of Michigan-Dearborn") with a continued commitment to some master's level graduate programs, having a Chancellor as its chief executive officer; two years later, the old divisions became schools and colleges, and the Division of Education ("Urban Education" for the first few years) was created, with each of the major academic units headed by a dean. The first Chancellor of the UM-Dearborn, Dr. Leonard E. Goodall, was appointed in July, 1971.

After that watershed change in 1971, UM-Dearborn grew rapidly from just under 1,000 students to over 6,000 in 1979. During this period there was a scramble just to supply the courses and facilities needed to accommodate the soaring student population. New faculties were added at the rate of 10 to 20 per year, and the face of the campus changed as a new set of buildings (the former University Mall now remodeled as the University Center, the Fieldhouse, and the Library) was planned and constructed to the south of the original four buildings. By April 1981, when the new library building was dedicated, the population center of the campus had shifted to this newly developed area. Ironically, however, these years of expansion also ushered in a period of severe retrenchment, when the debt burden of the new structures coincided with a recession and cuts in state aid to the campus. Dr. William Jenkins, appointed as UM-Dearborn's second Chancellor in 1980, took the helm at the beginning of what may be called the institution's "Years of Consolidation."

The early 1980's at UM-Dearborn were, as in the state of Michigan as a whole, a period of severe financial crisis. From 1979 through 1982, over a million dollars of funds allocated to UM-Dearborn by the state had to be recalled. During that same time, faculty and staff salaries were cut and student tuition rose 44 percent in three years. Nevertheless, student enrollment, after a slight drop from 1982 to 1984, resumed its steady rise that has continued to the present. A new surge in capital fund-raising was instigated as a result of the campus's fiscal problems, and it bore early fruit in 1984 when Ford Motor Company announced the biggest capital gift to UM-Dearborn since its founding: $800,000 to build a computer-aided engineering facility, now known as the Manufacturing Systems Engineering Laboratory (completed in 1988). By the end of the decade, capital funding from the state (delayed during the recession) resulted in one major new building (the Social Sciences Building, formerly the School of Management Building), an addition to the Science Building (Computer Wing), and extensive renovations to one of the original campus buildings to provide much-needed additional office space for both faculty and administrators.

Several developments in campus organization, administrative personnel, and academic offerings have highlighted what might be called the "Years of Redirection," from about the time of the inauguration of Chancellor Blenda Wilson (1988) to the present. At the center of this "redirection" has been a program of strategic planning, initiated in the summer of 1990 and reinforced by planning retreats for the whole campus in the full terms of 1990, 1991 and 1992. A new campus mission statement arose out of the first retreat which rearticulates UM-Dearborn's commitment to providing an experience of academic excellence for a diverse body of students from the metropolitan Detroit area, encouraging full community attention to the traditions of free intellectual inquiry, critical thinking and ethical behavior through interactive teaching, research, creative and applied scholarship, and service. From the second retreat emerged the principal points of a set of learning goals for undergraduate students.

In consonance with these statements of institutional purpose, organizational changes were made to strengthen the funding base for the campus, to consolidate and streamline academic programs, and to coordinate and strengthen student services under a new vice chancellor for student affairs. In July 1991, Dr. Robert Simpson took office as provost and vice chancellor for academic affairs, succeeding Dr. Eugene Arden. Provost Simpson energetically promoted the identification and implementation of those measures of academic improvement that are most appropriate to the newly stated purposes of the campus. Under his leadership, a new statement of UM-Dearborn's Goals for the Undergraduate Experience was completed in 1993; a new fiber optic cable was laid for a campus computer network, with the Director of the Mardigian Library being given oversight of Information Technology Services; and, after a self-study (1991-93) using the campus's strategic plan as the focus, UM-Dearborn was officially reaccredited by the North Central Association in March 1994.

After Chancellor Wilson resigned in the summer of 1992, Dr. James C. Renick was appointed as the fourth chancellor of UM-Dearborn in January 1993. As one of his first responsibilities, he solidified the capital campaign and established a goal of 524
million over four years (1992-1997). Chancellor Renick emphasized the importance of making UM-Dearborn a fully "interactive campus" with the southeastern Michigan community it serves.

Several other important developments took place in 1993 and early 1994: 1) a new set of Campus Bylaws was instituted which provided for a Faculty Senate for the first time in the campus's history; 2) approval by the State Legislature of capital outlay for a new building to house faculty offices, general purpose classrooms, and a 350-seat multi-purpose auditorium; 3) institution of a new Engineering Management degree in 1993, administered jointly by the Schools of Engineering and Management; 4) implementation of a new, second-generation automated library system (WIIZARD) which substantially increases faculty and student access to local, regional and national bibliographic databases.

The University purchased the facility now known as Fairlane Center North and South from Ford Motor Company. In January 2004, the Schools of Education and Management completed their move into Fairlane Center South. CEHHS and COB courses were offered in this new location starting Winter 2004. The Computer and Information Science Department will occupy the space vacated by CEHHS and the Department of Social Sciences together with other administrative offices will move into the former School of Management building, now called the Social Sciences Building.

Under Chancellor Little, the strategic planning effort initiated by Renick was continued. The campus community reaffirmed its intention to pursue doctoral programming, to explore the possibility of on-campus housing, to review undergraduate programs and to focus attention on diversity. The most recent self-study for continuing accreditation by the Higher Learning Commission (formerly the North Central Association) focused on each of these areas and provided summaries of the current status of each of these ongoing efforts. UM-Dearborn was accredited for ten years in 2004 and was authorized to offer doctoral programming.

In 2009, UM-Dearborn welcomed its fourth Provost and Vice Chancellor for Academic Affairs, Dr. Catherine A. Davy. Two new buildings, the Science Learning and Research Center (just west of the Science Building) and the Institute for Advanced Vehicle Studies will be operational.

Source of information up to 1984: A Gift Renewed, written by Professor Elton D. Higgs.

**Accreditation**

The University of Michigan-Dearborn is fully accredited by The Higher Learning Commission and a member of the North Central Association of Colleges and Schools. Accreditation has also been awarded to various UM-Dearborn engineering programs by the Accreditation Board of Engineering and Technology, Inc. AACSB, the Association to Advance Collegiate Schools of Business has accredited programs in the College of Business. The College of Education, Health, and Human Services is a member of the American Association of Colleges for Teacher Education, the Michigan Association of Colleges for Teacher Education, and the Teacher Education Council of State Colleges and Universities. In 2001 its certification programs were approved through the periodic review of the Michigan Department of Education.

For information regarding the accreditation status of the University, either of the following may be contacted:

- The Higher Learning Commission
  North Central Association of Colleges and Schools
  230 South LaSalle Street, Suite 7-500
  Chicago, IL 60604-1413
  (800) 621-7440
  ncahigherlearningcommission.org
  or
  University of Michigan-Dearborn
  Office of the Provost
  1080 Administration Building
  Dearborn, MI 48128-2406
  (313) 593-5030

Some degree programs are certified by professional organizations.

**Admissions**

Office of Admissions and Orientation
4901 Evergreen Road
Dearborn MI 48128
313-593-5100
313-436-9167 [FAX]
admissions@umd.umich.edu
umd.umich.edu/futurestudents

**Campus Visits/Tours**

Visiting campus is the best way to explore what we offer you! The Office of Admissions and Orientation offers multiple visit options. Choose the one that best fits your schedule by visiting our website at umd.umich.edu/visit.

**Campus Visits**

- **Go Blue Friday**: A special campus visit for high school students which includes a presentation and campus tour.
- **Transfer Nights**: Designed especially for students interested in transferring.
- **Daily Campus Tours**: 45 minute walking tours are given by current students at various times throughout the week. Call 313-593-5100 to make a reservation.
- **Individual Appointments**: If you prefer a one-on-one meeting with an admissions counselor, appointments are available Monday through Friday. Walk-in counseling is available on select Saturdays.
- **Group Visits**: Group visits (10 or more students in 8th grade or above) can be arranged to include an Admissions informational session and a 45 minute walking tour led by current students. Other campus offices are available to provide information by request. Please request a group visit at least two weeks in advance. A request form is available online at umd.umich.edu/visit.

**Degrees Offered**

The following undergraduate majors and other fields of concentration offered at UM-Dearborn are shown with the degree designations to which they normally lead:

**Key**

- Bachelor of Arts ................................................. AB
- Bachelor of Business Administration .......... BBA
- Bachelor of General Studies ...................... BGS
- Bachelor of Science ................................. BS
- Bachelor of Science in Engineering .......... BSE
Accounting ................................................................. BBA
African & African American Studies .................................. AB
American Studies ......................................................... AB
Anthropology .............................................................. AB
Art History ................................................................. AB
Behavioral Sciences ..................................................... AB
Biochemistry .............................................................. BS
Bioengineering .......................................................... BSE
Biological Sciences ...................................................... BS
Chemistry ................................................................. A.B.

Instructional
Children & Families ..................................................... BGS
Communication .......................................................... AB
Computer and Information Science ................................ BS
Computer Science
Information Systems

Computer Engineering .................................................. BSE
CIS Mathematics (Dual Degree only) .............................. BS
CIS Mathematics (Dual Degree only) ............................... BS
Computing Mathematics (Dual Degree only) .................... BSE
Computer Engineering .................................................. BSE

Elementary Certification
Earth Science ............................................................. BS
Economics ................................................................. AB
Electrical Engineering .................................................. BSE
Elementary Certification ................................................ AB
Elementary Certification (Certification Only) ...................... BSE
Engineering Mathematics (Dual Degree only) .................. BSE
English ................................................................. AB
Environmental Science ................................................ BS
Environmental Studies ................................................ AB
Finance ................................................................. BBA
French Studies .......................................................... AB
General Business ........................................................ BBA

General Studies ......................................................... BGS
Health Policy Studies ................................................ AB
Hispanic Studies ........................................................ AB
History ................................................................. AB
Human Resource Management ....................................... BBA
Humanities ............................................................... AB
Industrial and Systems Engineering ............................... BSE
Information Technology Management ........................ BBA
Integrated Science ..................................................... BS
International Studies .................................................. AB
Journalism and Screen Studies ..................................... AB
Language Arts .......................................................... AB, BS

Elementary Certification
Liberal Studies .......................................................... AB, BS
Management ............................................................. BBA
Manufacturing Engineering .......................................... BSE
Marketing ............................................................... BBA
Mathematics ............................................................. AB, BS
Mathematics Studies ................................................... AB, BS
Mathematics Studies ................................................... AB, BS

Elementary Certification
Mechanical Engineering .............................................. BSE
Microbiology ............................................................. BS
Philosophy ............................................................... AB
Physics ................................................................. BS
Political Science ......................................................... AB
Psychology ............................................................... AB
Reading ................................................................. AB

Elementary Certification
Science Studies .......................................................... AB, BS

Secondary Certification ............................................ AB, BS
Social Studies .......................................................... AB, BS
Elementary or Secondary Certification
Sociology ................................................................. AB
Software Engineering ................................................ BS
Special Education ..................................................... AB, BS
Supply Chain Management ......................................... AB
Urban and Regional Studies ......................................... AB
Women’s and Gender Studies ....................................... AB

Pre-Admission Counseling

Admissions counselors are willing to explain the educational opportunities available at UM-Dearborn to prospective students. It is urged that, whenever possible, persons interested in enrollment arrange a one-on-one appointment. This includes students in college or high school or anyone wishing to return to school.

Degree-Seeking Student

A student who has been admitted as a freshman or transfer into a regular degree program in an academic unit is called a degree-seeking student. After enrolling, a student may change from one degree program to another by following established procedures, as long as he/she is accepted by the new unit.

Freshman Student Admission

ADMISSION PROCEDURES

UM-Dearborn welcomes applications from prospective freshmen. The admission of all students is on a selective basis; admissions officials consider many factors in reaching individual decisions for admission.

Sources of information used in evaluating a candidate's qualifications include the secondary school record (GPA, rigor of curriculum and trend of grades), comments of the secondary school counselor or principal, scores achieved on either the Scholastic Aptitude Test (SAT) or the American College Test (ACT), and any evidence of special abilities.

Freshmen are expected to present a final official high school transcript as proof of graduating from an accredited high school or preparatory school. The requirement of high school graduation may be waived for adults, provided there is evidence that they are likely to be successful at the University. This evidence will in most cases take the form of the General Educational Development (GED) test results. The minimum GED test score for admission consideration is 600.

Information provided on the Application for Undergraduate Admission and Scholarships must be accurate and complete. Falsification or omission of information or credentials may result in the revocation of admission.

APPLICATION DEADLINE

It is recommended that students apply for admission online and are eligible to do so as soon as they complete their junior year in high school.

The application deadline for preferred scholarship consideration is December 15 of the student’s senior year in high school. The official application deadline date for any semester is the first day of class of that semester.
The application fee is $30. If you apply online (umd.umich.edu/apply), the application fee is waived and you can check your application status online. Paper applications may also be obtained in the Office of Admissions and Orientation or printed from the website. If you submit a paper application, you must include payment (check or money order) for the $30 non-refundable application fee.

Official high school transcripts are needed at the time of application for freshman admission. Students seeking admission to UM-Dearborn that took coursework from other institutions of higher learning must also submit official transcripts from all previous institutions. Official corrections made to transcripts by previous schools, whether high schools, colleges, or universities, must be submitted to the University no later than six months after the first day of classes. Students whose official transcripts are not received will have a hold placed on their student account which prevents course registration for future semesters.

The Admissions counseling staff welcomes the opportunity to meet prospective students. Appointments should be arranged in advance by calling the Office of Admissions and Orientation at 313-593-5100.

ADMISSION REQUIREMENTS

Students interested in enrolling at UM-Dearborn should have completed the Michigan Merit Curriculum as established by the State of Michigan (or equivalent coursework if outside of Michigan). Students graduating from a high school outside of Michigan should pay close attention to the requirements listed below.

A strong high school background in basic academic subjects is important in a student's preparation for college study. The following college preparatory high school curriculum should be followed:

- **College Preparatory English:** Minimum four years required.
- **Mathematics:** Minimum four years required (at least two years must be in college preparatory mathematics).
- **Biological and Physical Sciences:** Minimum three years required with four years recommended.
- **History and Social Sciences:** Minimum three years required.
- **Foreign Language:** Minimum two years strongly recommended.
- **Computer Science:** At least one semester is required; one year recommended.
- **Electives:** Additional work in any subjects offered for high school credit to bring the total for the four high school years to the equivalent of at least 15 units.

SPECIAL RECOMMENDATIONS

Students who intend to pursue their college work in business administration, computer science, engineering, or physical and natural sciences are encouraged to include the following subjects in their high school preparation:

- **Mathematics:** Coursework should include two years of algebra, one year of geometry and at least one semester of trigonometry.

**Biological and Physical Sciences:** Coursework should include one year of chemistry and at least one year of physics or biological science.

Applicants intending to pursue a college program in science or engineering who have not completed the recommended mathematics and chemistry units may still be admitted if they satisfy the general admission requirements. However, they will be expected to establish proficiency in these areas during their freshman year.

TEST REQUIREMENTS

UM-Dearborn requires all prospective freshmen to submit scores from at least one standardized test: the Scholastic Aptitude Test (SAT) or the American College Test (ACT). The student should make certain that the test results are forwarded to the UM-Dearborn Office of Admissions and Orientation (SAT code #1861; ACT code #2074).

The results of standardized achievement tests in specific subject areas are not required as part of the application process. However, all new freshmen enrolling at UM-Dearborn, must take the UM-Dearborn English Composition Examination and the Mathematics Placement Examination. These exams are for diagnostic and placement purposes. Placement exams are normally administered prior to each registration period.

ADVANCED PLACEMENT (AP)

A prospective student who has exhibited outstanding scholarship in a particular subject area and has participated in the College Board's Advanced Placement Program (AP) may be considered for advanced college placement and credit. Such applicants should arrange to have their Advanced Placement Examination reports sent (use our college code of 1861) to the Office of Admissions and Orientation, where they will be reviewed in accordance with the regulations of the various academic departments. Advanced Placement credit will not be granted when the AP Exam is taken after the student’s official date of high school graduation. For information on the college credit AP practices, visit umd.umich.edu/advancedplacement.

INTERNATIONAL BACCALAUREATE

UM-Dearborn grants credit to students based on their IB scores. Students who participated in the IB program in high school should request that their scores be provided to the University for evaluation. Scores of 4 and above are considered for credit.

ENROLLMENT DEPOSIT

In order to guarantee a space in the respective semester, a $50 enrollment deposit should accompany the student's affirmative reply on the Admissions Acceptance Form, which is sent to the student at the time of admission. The applicant may confirm at any time. For the fall semester, the deadline for deposit is May 1. Upon registration, this deposit will be applied to tuition/fees for that semester. The $50 enrollment deposit is not refundable after May 1 for fall semester admitted students regardless of when the deposit is submitted.

For the winter semester, the deadline for deposit is December 1. For the summer semester, the deadline for deposit is April 1. The deposit is not refundable after the deadline dates.

Online payment of the deposit can be submitted at umd.umich.edu/deposit.
**BRIDGE PROGRAM**

Students denied admission to the University may choose to enroll in the Bridge Program, a partnership with Henry Ford Community College. Students can enroll at HFCC for the first one to two years of college to plan a degree program, earn college credit, and develop the skills and knowledge necessary to succeed in academics. For more information, visit umd.umich.edu/bridge.

**Transfer Student Admission**

**ADMISSION REQUIREMENTS**

The requirements for admission to UM-Dearborn depend upon the particular program of study to be followed. Admission is based on preparation, ability, and probability of success. All applicants should be in good standing and eligible to return to their previous institution.

Each of the four academic colleges of the University has its own admission criteria:

- **CASL** 2.50
- **COB (BBA)** 2.70*
- **CECS** 2.75**
- **CEHHS** 2.75

*Students must also have a 2.70 in the eight specific courses (COMP 105, 280; ECON 201, 202; MATH 113 or 115; BA 100; ACC 298, 299) required for BBA admission.

**Students must also have a 2.75 recalculated math, science, and engineering GPA.

Information provided on the Application for Undergraduate Admission and Scholarships must be accurate and complete. Falsification or omission of information or credentials may result in the revocation of admission.

**ADMISSION PROCEDURE**

Prospective transfer students are required to submit an application for admission and an official transcript from each college or university previously attended. Failure to list all schools attended on the application may result in revocation of admission. To be considered, official transcripts must come directly from the previous college/university to UM-Dearborn’s Office of Admissions and Orientation or must be received in a sealed envelope with the issuing college/university’s stamp/signature over the seal.

The prospective student is responsible for contacting each previous school attended to request that official transcripts be sent. While all transcripts are required for admission, only courses taken at an accredited college or university will be considered for transfer to the University of Michigan-Dearborn. UM-Dearborn uses the Transfer Credit Practices published by the American Association for Collegiate Registrars and Admission Officers (AACRAO) as a guideline to determine transferability of courses based on accreditation status and other criteria. A list of accredited U.S. and Canadian colleges and universities can be obtained from infoplease.com/edu/colleges/index.html or from the American Council on Education at acenet.edu/nationalguide/.

The application fee is $30. If you apply online (umd.umich/apply), the application fee is waived and you can check your application status online. Paper applications may be obtained in the Office of Admissions and Orientation or printed from the website. If you submit a paper application, you must include payment (check or money order) for the $30 non-refundable application fee.

When the application and official transcripts have been received, they will be evaluated and the student will be notified regarding admission status.

Admission granted while the student is enrolled at another institution is conditional and will become final only when the student meets the conditions set forth in the conditional admission letter and upon receipt by the Office of Admissions and Orientation of the final official transcript from the student's former institution(s). It is the student's responsibility to see that the final transcript is provided to the Office of Admissions and Orientation following the completion of all courses. **Students will not be allowed to register for subsequent terms until the final transcript has been received.**

Official corrections made to transcripts by previous schools, whether high schools, colleges, or universities, must be submitted to the Office of Admissions and Orientation within six months of the first day of classes of the term of admission.

**TEST REQUIREMENTS**

All new transfer students enrolling at UM-Dearborn must take the UM-Dearborn English Composition Examination; the Mathematics Placement Examination must be taken by all new students who plan to take Pre-Calculus or Calculus 1. These exams are for diagnostic and placement purposes. Placement exams are normally administered prior to each registration period.

**TRANSFER OF CREDITS**

Students transferring to UM-Dearborn from other two- or four-year institutions can use one or more of these resources below to ensure maximum number of transfer credits.

**Course Transfer System**

The Course Transfer System (CTS) (umd.umich.edu/cts) at the University of Michigan-Dearborn is a valuable resource. While it is not an official credit evaluation, the CTS can serve you in determining the transferability of courses from an accredited Michigan community college or four-year school. The information is always current and reflects courses that potentially transfer to UM-Dearborn, but does not necessarily indicate if or how these courses will be used toward your particular degree program.

**Equivalency Tables**

Our Equivalency Tables outline how courses by each subject area transfer to the University.

**Curriculum Guides**

Our Curriculum Guides outline courses that can be applied to specific majors.

**TRANSFER HUBS**

Students transferring to UM-Dearborn from a community college located in the metropolitan southeastern Michigan area should check out the customized websites for each of the community colleges. These sites can be accessed at umd.umich.edu/hubs.

**TRANSFER EQUIVALENCY WORKSHEET**

Shortly after admission, a transfer student will receive a Transfer Equivalency Worksheet. This worksheet reflects only the overall hours potentially transferable to UM-Dearborn, but does not necessarily reflect the hours that will be used toward a degree.
program. An academic advisor will inform the student as to which hours actually fulfill program requirements. The number of hours that apply to a particular program will determine the number of additional UM-Dearborn hours necessary for degree completion.

MAXIMUM TRANSFERABLE CREDITS

<table>
<thead>
<tr>
<th>Previously Attended</th>
<th>Maximum Transferable Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Y (only)</td>
<td>62</td>
</tr>
<tr>
<td>4Y (only)</td>
<td>75</td>
</tr>
<tr>
<td>2Y &amp; 4Y</td>
<td>75 (62 from 2Y, 75 total)</td>
</tr>
<tr>
<td>UM (only)</td>
<td>90</td>
</tr>
<tr>
<td>2Y &amp; UM</td>
<td>90 (62 from 2Y, 90 total)</td>
</tr>
<tr>
<td>4Y &amp; UM</td>
<td>90 (75 from 4Y, 90 total)</td>
</tr>
<tr>
<td>2Y, 4Y &amp; UM</td>
<td>90 (62 from 2Y, 75 from 2Y+4Y, 90 total)</td>
</tr>
</tbody>
</table>

2Y = 2 year institution
4Y = 4 year institution
UM = University of Michigan-Ann Arbor, Flint, or Dearborn

**Admission to the Honors Program**

The Honors Program at UM-Dearborn is designed for qualified, highly-motivated students who want an extra level of challenge and stimulus in their college experience. Honors students take a special sequence of classes that satisfy basic requirements and, at the same time, provide a well-balanced undergraduate education. The program teaches students to think critically and independently, to perceive connections between diverse areas of knowledge, and to express their thoughts clearly and effectively. Honors Program classes are small, enabling students to interact closely with the faculty and each other.

Admission to the program is competitive and is based on the student's interests and experience as well as the high school record. Students eligible to interview for the Honors Program will be contacted to schedule an interview.

Students admitted with distinction (at least a 3.50 recalculated GPA and at least a 25 ACT composite score) will be invited to interview for the Honors Program.

For more information, visit casl.umd.umich.edu/sp_honorsprog.

**Personal Enrichment**

Personal Enrichment (PE) is an admission status that enables students to enroll in undergraduate courses for the purpose of personal or professional development.

**Eligibility**

- Students must have already earned a baccalaureate degree and not be seeking an additional undergraduate degree.

Students in this category are subject to the following policies:

- A PE student may enroll for a maximum of 15 credit hours at the University. There is no limit on the number of semesters, but the total number of completed credit hours for all semesters enrolled may not exceed 15.
- A PE student may apply no more than 15 credit hours accumulated at UM-Dearborn to a degree program. Exception is possible only by written permission of the academic dean of the unit to which the student has applied.
- A PE student is limited to enrolling for nine credit hours (not to exceed three courses) in a single four-month term (four hours per half-term).
- A PE student with a grade point average (GPA) less than 2.0 should see the Director of Academic Assistance in the Student Success Center before registering for a subsequent term. The student will normally be put on probation. If academic performance persists below a 2.0 cumulative grade point average (GPA), the student may be required to withdraw from the University.

A Personal Enrichment student will have fees assessed and adjusted by fee regulations identical to those governing regular matriculated students. All courses taken under PE status are considered part of the undergraduate record.

Students who wish to request additional information should call the Office of Admissions and Orientation at 313-593-5100.

**Prospective Degree Student**

The Prospective Degree Student (PDS) program provides an opportunity for an individual whose previous high school and/or college work does not qualify for admission as a degree-seeking student to enroll in undergraduate courses.

**Eligibility**

- Students who are at least five years beyond high school graduation (or beyond last high school attendance for applicants with a GED)
  OR
- Students who have completed some college work, and are at least five years out of high school, and have not been enrolled in college for at least two years

Students in this category are subject to the following policies:

- A student may enroll for a maximum of 15 credits toward degree as a non-degree student. The student may take additive credits with the approval of his/her advisor, but these credits are not used in determining eligibility for degree status, nor will they apply toward a degree.
- The 15 credit hours, GPA requirement, and prerequisite courses (if any) must be completed within two full academic years.
- A PD student with a grade point average (GPA) less than 2.0 should see the Director of Academic Assistance in the Student Success Center before registering for a subsequent term. The student will normally be put on probation.
- Upon completion of no more than 15 credit hours, the student must apply for admission to a degree program.
- Students who earn a GPA less than the academic unit requirement are unable to apply for admission and do not have permission to enroll in any status.
- Students who do not enroll at UM-Dearborn for one year or more and are in good academic standing must reapply by completing a new Prospective Degree Student application.
- A PE student with a grade point average (GPA) less than 2.0 should see the Director of Academic Assistance in the Student Success Center before registering for a subsequent term. The student will normally be put on probation.
- A PD student will have fees assessed and adjusted by fee regulations identical to those governing regular matriculated students. All courses taken under PDS status are considered part of the undergraduate record.
- PD students must take the English and Mathematics placement exams either before or during their first semester of enrollment.

**Financial Aid Eligibility Limitations**

Prospective Degree Students have a special status at UM-
Dearborn and are eligible to be considered for financial aid for up to 12 consecutive months before admission to a regular degree program. If a student is not admitted to a regular degree program at the end of the 12 consecutive months, the student is not eligible for additional financial aid.

Students who wish to request additional information should call the Office of Admissions and Orientation at 313-593-5100.

**Alumni Enrichment Program**

The Alumni Enrichment Program is an opportunity for UM-Dearborn alumni to enhance their education and to provide additional exposure to a variety of subject areas on a non-credit basis. Each alumnus's selection of courses will be checked to ensure that the educational-broadening objective of this program is being faithfully pursued.

All courses must be taken on a pass/fail basis.

**ELIGIBILITY**

This program is available to UM-Dearborn Alumni only. Upon acceptance, students are eligible to elect up to 9 hours per term of undergraduate course work in one or more fields distinctly different from the field in which they earned their bachelor's degree (major or minor).

Undergraduate and graduate alumni from UM-Dearborn may pursue undergraduate courses. They are eligible to participate in the program one full term after graduation has been confirmed. Alumni participants are not eligible if currently enrolled in a degree or certificate program.

Course enrollments will occur on a space available basis. Alumni in this program will also have to meet the regular pre-requisites for any courses they elect. Internship, cooperative education, and online courses are not available to program participants.

**ASSESSMENT**

A discounted per credit hour charge will be levied as an "enrollment fee." This means that a portion of the tuition will be covered by an Alumni Scholarship. The Alumni Enrichment student will also be expected to pay any fees associated with registration, course elections, and technology.

**TO APPLY**

Complete an Alumni Enrichment Application and submit it to Enrollment Services. Applications are available in the Office of Admissions and Orientation or online at umd.umich.edu/otheradmission. Once approved and processed, students will be allowed to register for classes. For further information, contact the Office of Admissions and Orientation at 313-593-5100.

**Guest Students**

A guest student is a regular degree student in good standing at another institution who is admitted to UM-Dearborn for one term only. Work completed under such an arrangement is considered to be a part of the student's program elected under the jurisdiction of the home institution.

Admission is by means of a Michigan Uniform Guest Application certified by the home institution, and a completed addendum to the application available at umd.umich.edu/guest-addendum. The Guest application deadline for any term is the first day of class of that term.

Guest students are expected to receive academic advising from their home institution, although guest students are subject to all rules governing course prerequisites.

Enrollment is limited to a maximum of four semesters. A new application is required for each semester they wish to enroll. If a guest student has previously taken classes at UM-Dearborn, the admission decision will also be based on the UM-Dearborn GPA.

If there are prerequisites for any courses elected, the student is required to submit a copy of the home college/university's transcript to verify that all requirements have been fulfilled and receive the necessary overrides prior to registration.

**Dual Enrollment Programs**

**HIGH SCHOOL DUAL ENROLLMENT**

Dual enrollment provides an opportunity for public high school students with demonstrated academic potential to enroll in selected UM-Dearborn courses while completing their high school graduation requirements.

The purpose of the program is to supplement and enrich the educational experience by allowing students to pursue course work which otherwise would not be available. Admission as a dual enrolled student is a special non-degree status. Students are expected to complete all graduation requirements mandated by his/her high school. Although students are admitted with a special status, they are granted full privileges of UM-Dearborn students, including use of the library and recreational facilities and the opportunity to purchase student tickets to cultural and athletic events at the University of Michigan. After graduation, admission to a degree program at the University will be granted provided they meet the minimum admission criteria. Dual enrollment students may enroll for a maximum of eight credit hours per semester.

**Admission Criteria:**

<table>
<thead>
<tr>
<th>Current Class Standing</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniors</td>
<td>3.0+ posted GPA on HS Transcript</td>
</tr>
<tr>
<td>Juniors</td>
<td>3.5+ posted GPA on HS Transcript</td>
</tr>
<tr>
<td>Sophomores and Freshmen*</td>
<td>3.75+ posted GPA on HS Transcript</td>
</tr>
<tr>
<td></td>
<td>Personal Interview with Admissions Representative to measure maturity level and preparedness for college coursework.</td>
</tr>
<tr>
<td></td>
<td>Optional: provide any additional assessment scores if available (i.e.: Explore, Plan, ACT, Compass, MME, PSAT, SAT, or Accuplacer)</td>
</tr>
</tbody>
</table>

*Upon admissions, high school freshmen and sophomores must sign a contract with the Student Success Center which will connect them with additional support services.

**To Apply for Admission**

Apply as early as possible. The deadline for all documents is **June 15** for the fall semester and **November 1** for the winter semester. No application will be processed until all of the following have been completed and received:

1. The Dual Enrollment application.
2. Course election worksheet (back of the application). Be sure to select alternatives.
3. Calculation sheet (back of the application) signed by your high school counselor or principal.
4. An official transcript (including test scores, if applicable).
Students must submit a new application for each semester they wish to enroll.

**Orientation and Registration**
Students will be notified of their admission status by the Office of Admissions and Orientation. Admission to dual enrollment status does not guarantee the ability to enroll in the class(es) specified on the application form, but every effort will be made to accommodate the student’s request. Information about orientation and registration will be mailed upon admission.

**IGNITE DUAL ENROLLMENT**
IGNITE, an acronym for Inspiring Gifted and Nurturing Individuals Through Enrichment, is a program which has been developed through the combined efforts of local secondary school counselors and principals and the University of Michigan-Dearborn. The objective of the IGNITE program is to provide an opportunity for private, parochial, or home schooled high school students with demonstrated academic potential to enroll in selected UM-Dearborn courses while completing their high school graduation requirements.

The purpose of the program is to supplement and enrich the educational experience by allowing students to pursue course work which otherwise would not be available. Admission as an IGNITE dual enrolled student is a special non-degree status. Students are expected to complete all graduation requirements mandated by his/her high school. Although students are admitted with a special status, they are granted full privileges of UM-Dearborn students, including use of the library and recreational facilities and the opportunity to purchase student tickets to cultural and athletic events at the University of Michigan. After graduation, admission to a degree program at the University will be granted provided they meet the minimum admission criteria. IGNITE dual enrollment students may enroll for a maximum of eight credit hours per semester.

Students are not permitted to enroll in both programs simultaneously; a student will either be an IGNITE applicant or a dual enrollment applicant. If you have questions about the IGNITE program, call the Office of Admissions and Orientation, 313-593-5100.

**Admission Criteria:**
IGNITE applicants must be attending a non-public high school or home schooled, must be U.S. citizens or permanent resident aliens and meet the following criteria.

<table>
<thead>
<tr>
<th>Current Class Standing</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seniors</td>
<td>3.0+ posted GPA on HS Transcript</td>
</tr>
<tr>
<td>Juniors</td>
<td>3.5+ posted GPA on HS Transcript</td>
</tr>
<tr>
<td>Sophomores and Freshmen*</td>
<td>3.75+ posted GPA on HS Transcript</td>
</tr>
<tr>
<td></td>
<td>Personal Interview with Admissions Representative to measure maturity level and preparedness for college coursework.</td>
</tr>
<tr>
<td></td>
<td>Optional: provide any additional assessment scores if available (i.e.: Explore, Plan, ACT, Compass, MME, PSAT, SAT, or Accuplacer)</td>
</tr>
</tbody>
</table>

*Upon admissions, high school freshmen and sophomores must sign a contract with the Student Success Center which will connect them with additional support services.

**Scholarships**
The IGNITE Scholarship pays half tuition and fees up to a maximum of eight credit hours per term for the fall and winter semesters only. Students do not have to complete a separate scholarship application; their tuition will automatically be adjusted. Students may take classes during the summer semester, but are responsible for full tuition and fees; no scholarships are awarded for summer semester.

**To Apply for Admission**
Apply as early as possible. The deadline for all documents is June 15 for the fall semester and November 1 for the winter semester. No application will be processed until all of the following have been completed and received:

1. The IGNITE application (no application fee required).
2. Course election worksheet (back of the application). Be sure to select alternatives.
3. An official transcript (including test scores, if applicable).

**NOTE:** Students must submit a new application for each semester they wish to enroll.

**Orientation and Registration**
Students will be notified of their admission status by the Office of Admissions and Orientation. Admission to IGNITE dual enrollment status does not guarantee the ability to enroll in the class(es) specified on the application form, but every effort will be made to accommodate the student’s request. Information about orientation and registration will be mailed upon admission.

All dual enrollment applications can be found online at umd.umich.edu/otheradmission/.

**Readmission**
An undergraduate student (that is, a candidate for a bachelor's degree) who does not register for any courses at UM-Dearborn during a 12-month period must be formally readmitted in order to resume studies at UM-Dearborn. Such a readmitted student is then governed by the current Catalog.

Some instructional units at UM-Dearborn may have more stringent regulations. It is the obligation of students who leave the University for an extended period of time to acquaint themselves with the specific requirements of their instructional unit.

Since all I and X marks are permanently changed to IE andXE after six months, a readmit may not petition to make up F's or X's on his/her prior record.

Courses taken at other campuses will not count automatically toward graduation. Students must receive prior written permission from their academic unit to take specific courses elsewhere; otherwise, such courses may be rejected by the unit as credits toward a UM-Dearborn degree.

Readmitting students complete a Readmission Form available to download at umd.umich.edu/dde and submit it directly to the academic unit in which they wish to enroll. Readmitted students are subject to the requirements in effect at the time of readmission. If students want to change their program of study, they should contact the academic unit of the program to which they would like to change.

**DEFERRING ADMISSION**
Students who have been admitted but did not enroll may defer admission up to one year. After that, a new admissions application must be submitted. To defer admission, students complete an Admission Information Change Form available to download at umd.umich.edu/dde and must disclose if there will be any enrollment at another school prior to the new deferred semester. Failure to disclose this information may result in the revocation of admission.
Teacher Certification

The College of Education, Health, and Human Services at UM-Dearborn can assist qualified persons who hold a bachelor's degree from an accredited institution to pursue a program of study leading to a recommendation for a Michigan Provisional Teaching Certificate-Elementary (COE) or Secondary (COS).

Michigan Tests for Teacher Certification (MTTC) are required for both admission and for certification.

Admission to these programs (COE and COS) requires a cumulative GPA of 2.75 or higher on a 4.0 scale. In addition, a GPA of 2.75 is required in the chosen teaching Major (M) and teaching minor (m) (see Major/Minors for Elementary Certification or Majors/Minors for Secondary Education). Once admitted, the 2.75 must be maintained in all areas.

Applications and additional information are available by calling 313-593-5090.

Second Degree

Applicants must submit the Application for Undergraduate Admission and Scholarships and meet the same admission requirements as transfer students. Each of the four academic schools and colleges of the University have their own admission criteria:

- CASL: 2.50
- COB (BBA): 2.70*
- CECS: 2.75**
- CEHHS: 2.75

*Students must also have a 2.70 in the eight specific courses (COMP 105, 280; ECON 201, 202; MATH 113 or 115; BA 100; ACC 298, 299) required for BBA admission.

**Students must also have a 2.75 recalculated math, science, and engineering GPA.

Refer to the Transfer Student Admission section for additional information.

Retired Persons Scholarship Program

The Retired Persons Scholarship Program (RPSP) offers retirees the opportunity to attend classes alongside traditionally-aged students. The integration of younger students and older students into the mainstream academic curriculum bridges the generational gap. A limited number of Retired Persons Scholarships for undergraduate and graduate study are available at the University of Michigan-Dearborn.

Prospective students are required and expected to:

- have reached their 60th birthday prior to the semester of their first registration under this program.
- have graduated from high school and have the potential to succeed at college-level studies as demonstrated in an interview in the Retired Person Scholarship program (RPSP) Office. Appropriate education, career or life experience will be given special consideration.
- be a "retired person" -- to have no current career or employment.

For more information visit casl.umd.umich.edu/rpsp. Applications are available at umd.umich.edu/ddc, select CASL Campus Options Program, or by writing to:

Retired Persons Scholarship Program
2200 Social Sciences Building
University of Michigan-Dearborn
4901 Evergreen Road
Dearborn, MI 48128
313-593-1183

Provisional Admission

UM-Dearborn offers provisional admission to prospective students who meet the academic requirements but whose English language proficiency does not meet the levels required for regular admission. All applicants whose first language is not English must provide proof of English language proficiency. Provisional status will continue until the minimum language proficiency (for regular admission) is attained. Provisionally admitted students will be provided intensive English language support through the English Language Proficiency Program with a goal of achieving admission into a degree program (see section “Office of International Affairs”).

International Admission

All students must complete the Application for Undergraduate Admission. A $30 application fee is required of all students ($75 for those who will be studying on an F or J visa).

Application deadlines for students residing outside the U.S.:

Undergraduate | Graduate
---|---
For the fall semester | July 1 | August 1
For the winter semester | November 1 | December 1
For the summer semester | March 1 | April 1

You may submit your application first, and send additional materials afterwards however a complete packet with all necessary application components will expedite the admissions decision. All correspondence must be in English, and must contain the full name of the applicant with the family surname underlined. Once the application has arrived, applicants will be notified of any missing items. Applications will not receive a final evaluation until all required materials have been received.

PROOF OF STATUS

Students who are not U.S. citizens or Permanent Residents must provide proof of their current status in the U.S. Please refer to the appropriate category below.

F-1 or J1 Visa Students
If you are already in the U.S. studying on an F-1 or J1 visa, you must submit a copy of your current I-20 or DS-2019 form (front and back), a copy of your I-94 card, and a copy of the page containing the stamp which indicates your status in the U.S. Students currently outside the U.S. who plan to obtain an F-1 or J-1 visa from abroad for use in entering the U.S. should write “plan to obtain F-1 (or J-1)” in the “Type of Visa” section on the application.

Other Visa Students, Refugees, and Asylees
If you are currently in the U.S. as a refugee, asylee, or on a temporary visa other than the F-1 student visa (such as F-2, B-2, H-4, etc.), you must provide a copy of the identification page of your passport (name and photo) and a copy of the page containing the stamp which indicates your status in the U.S. If
you wish to change to F-1 status as you begin attending UM-Dearborn, please indicate this on your application.

Special Information for Canadians

- If you are a Canadian residing in the U.S. during your full course of study (12 or more credit hours), you must submit all documentation to the Office of Admissions and Orientation as if you were applying for an F-1 visa. An I-20 will be issued for the duration of the program of study.
- If you are a Canadian residing in Canada, you need to submit a financial document showing support for one semester. A Commuter I-20 will be issued for one semester at a time. Commuter Canadian Students do not receive all of the F-1 benefits.
- All Canadian students present the I-20 and other documents (i.e. passport) at the border, but they do not need to apply for a visa. The border will issue an I-94 document.

ACADEMIC RECORDS

Translations
Translations are required for all documents not originally in English. These translations are the responsibility of the student and must be complete, word-for-word, and in the same format as the original document. You must submit both the original document and the translation to the Office of Admissions and Orientation.

High School Records
All freshmen must submit official transcripts for all years of secondary school work completed (U.S. and abroad). If your secondary school work has been completed in a country which has national standardized examinations, you must also submit official certificates showing results of these examinations (“O” or “A” levels, Baccalaureate, Standard X and XII, etc.).

Transfer students must provide proof of secondary school completion (diploma, final transcript, leaving certificate, examination certificate, etc.), but are usually not required to provide records from all years of secondary school. However, you must provide complete records if you have attended college for less than one year of full-time study.

College and University Records
Transfers must have official transcripts sent to the Office of Admissions and Orientation from all post-secondary institutions attended. Notarized copies may be acceptable from institutions outside the U.S. (if originals are typically difficult to obtain).

If you have attended college or university outside the U.S., you must also submit transcripts from all post-secondary institutions you have attended outside the U.S. to one of two evaluation services:

- Educational Credential Evaluators (ECE) for a course-by-course evaluation (www.ece.org)
- World Education Services (WES) for a course-by-course evaluation (www.wes.org)

Please also send a copy of these records (and translations) to the Office of Admissions and Orientation for your file, as requested above. ECE requires that you also submit records from your last year of secondary school along with your college or university records.

If you are admitted and enroll as a degree-seeking student at UM-Dearborn, we will reimburse you for $100 of the cost of this evaluation by making a credit to your student account at the end of the drop-add period of your first term of enrollment at UM-Dearborn. We will not reimburse for the extra rush service fee, so it is important that you start the evaluation process well in advance of your intended starting term at UM-Dearborn. Requests for reimbursement must be made in writing within 30 days of the start of the term to the Office of Admissions and Orientation.

ACADEMIC REQUIREMENTS FOR INTERNATIONAL ADMISSION

This section concerns grade-point average (GPA) and course/curriculum requirements. All first-year applicants must take either the SAT 1 or the ACT, AND a language proficiency test. See Sections “Requirements For Standardized College Entrance Examinations” and “English Language Proficiency Requirements” for details.

Freshman Academic Requirements
Freshmen who have attended secondary school abroad are expected to meet the same general admissions requirements as U.S. students.

1. You must have earned a U.S. high school diploma or the equivalent secondary school completion credential in your country, by the time you would enroll at UM-Dearborn. Freshmen usually apply during their last year of secondary school. Any offer of admission is conditional upon successful completion of the secondary school program before enrollment at UM-Dearborn.
2. You must have pursued a general academic (non-vocational) program of study. Solid preparation in the traditional academic college-preparatory subjects is required (English, mathematics, science, social studies).
3. You must have maintained above-average grades throughout your secondary school studies. Admission is competitive, and to be a strong candidate for admission, grades received should be equivalent to an overall GPA of 3.0 on a 4.0 U.S. scale. If you complete your secondary schooling abroad, please contact the Office of Admissions and Orientation for information on the credential and level of performance which would be acceptable for admission.

Transfer Academic Requirements
The Office of Admissions and Orientation will evaluate transcripts from all institutions attended as well as ECE or WES evaluations for foreign schools. Transfer students must have completed 24 transferable credits. If you are applying with fewer than 24 transferable credits, complete high school records including ACT or SAT scores will be required.

General academic requirements for each unit are listed below. You should contact the Office of Admissions and Orientation as early as possible in your academic career to be certain that you are completing courses that will not only transfer, but also count toward specific admission and/or graduation requirements at UM-Dearborn. All GPA requirements are given using the 4.0 U.S. scale.

All transfer applications are reviewed on an individual basis, and if you do not meet the stated requirements for your desired unit, it is suggested that you discuss your situation with an admissions counselor. Call 313-593-5100 to schedule an appointment.

- College of Arts, Sciences, and Letters
  Required GPA: 2.50
- College of Business
  Required GPA (BBA): 2.70
• College of Engineering and Computer Science  
  Required GPA: 2.75  
  Other requirements: Students must also have a 2.75 recalculated math, science, and engineering GPA.

• College of Education, Health, and Human Services  
  Required GPA: 2.75

If you do not meet the GPA requirement for the College of Business, College of Engineering and Computer Science, or the College of Education, Health, and Human Services but you do meet the requirement for the College of Arts, Sciences, and Letters (CASL), you may be admitted to CASL, then apply to meet the requirement for the College of Arts, Sciences, and Letters. You may take the test(s) more than once, and UM–Dearborn will consider only your most recent score. Test scores more than two years old will not be accepted for admission. You may take the MELAB, TOEFL or IELTS test more than once, and only your most recent score will be considered. Test scores more than two years old will not be accepted for consideration. For testing information and registration materials, please contact:

SAT  
College Board  
P.O. Box 6200  
Princeton, NJ 08541, U.S.A.  
Phone: 866-756-7346  
sat.org

ACT  
P.O. Box 414  
Iowa City, Iowa 52443, U.S.A.  
Phone: 319-337-1270  
act.org

ENGLISH LANGUAGE PROFICIENCY REQUIREMENTS

If you are not a native speaker of English, you must demonstrate proficiency in English language proficiency to enroll in college credit courses, even if you are currently a U.S. citizen or permanent resident and regardless of how long you have resided or been educated in the U.S.

You must fulfill the English language proficiency requirement in one of the ways described below before regular admission will be granted.

Freshmen may prove their proficiency without additional testing by:
• completing two full years of general track English courses in a U.S. high school with grades of “C” or better and
• achieving an acceptable score on the verbal section of the ACT or SAT. There is no specific ACT/SAT verbal score required, but this score will be used in conjunction with other factors to evaluate your academic English skills.

If you have not met the conditions described above, you will be required to complete an English proficiency test.

Transfers may prove their English proficiency without additional testing by:
• presenting acceptable performance as described in the freshmen section above. You must provide records to verify acceptable courses, grades, and SAT/ACT scores, or
• completing two semesters of regular-track, transferable English composition courses, equivalent to UM-Dearborn’s Composition 105 and 106, with grades of “C” or better in both courses (“C-” or below is not acceptable for transfer). If you are enrolled in the second semester of English composition when applying and earn a “C” or better in the first semester of English Composition, conditional admission may be possible.

If you have not demonstrated English language proficiency in one of the ways described above, you must take an English language proficiency test. The Office of Admissions and Orientation will accept the Test of English as a Foreign Language (TOEFL), the Michigan English Language Assessment Battery (MELAB), or the International English Language Testing System (IELTS) Examination. You must take one of these tests; it is not necessary to take all of them.

The minimum score required for admission is dependent on the test you take. Achieving the minimum score does not guarantee admission, only consideration.

Minimum Scores:

<table>
<thead>
<tr>
<th>Test</th>
<th>Minimum Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>MELAB</td>
<td>76</td>
</tr>
<tr>
<td>TOEFL: Paper-based</td>
<td>550</td>
</tr>
<tr>
<td>TOEFL: Computer-based</td>
<td>213</td>
</tr>
<tr>
<td>TOEFL: Internet-based</td>
<td>80</td>
</tr>
<tr>
<td>IELTS</td>
<td>6.5</td>
</tr>
</tbody>
</table>

The TOEFL and IELTS are offered throughout the world. The MELAB is offered in the United States and Canada. You should take a test well in advance of your intended starting term. TOEFL and MELAB scores arrive at UM-Dearborn 6-8 weeks after the test date. IELTS mails results 13 days after the test date.

You may take the MELAB, TOEFL or IELTS test more than once, and only your most recent score will be considered. Test scores more than two years old will not be accepted for consideration. For testing information and registration materials, please contact:
PLACEMENT EXAMS

Newly admitted or readmitted students may need to take one or more placement exams. Placement exams are used to plan a student’s program of study. Placement exams should be taken well in advance of orientation or meeting with academic advisor. Placement exams in English, Mathematics, and Foreign Language are offered. Placement exams are never used as a basis for awarding credit.

Financial Aid

Office of Financial Aid and Scholarships
4901 Evergreen Road
1183 University Center
Dearborn MI 48128
313-593-5300
313-593-5313 [FAX]
ask-ofa@umd.umich.edu
umd.umich.edu/financialaid
Federal Title IV School Code: 002326

It is the goal of the University of Michigan-Dearborn that no student should be denied an education because of limited financial resources. To meet this goal, the university maintains programs of grants, scholarships, loans and part-time employment for eligible students who are accepted and enrolled in the university as a degree-seeking student in good standing.

Available Financial Assistance

There are three types of aid available through a single application (the Free Application for Federal Student Aid or FAFSA): grants, loans and employment. Most assistance is offered as a package of two or more kinds of aid. Undergraduates (pursuing their first bachelor’s degree) are considered for grants, loans and work-study employment, according to their eligibility and preference. Students pursuing a second bachelor’s degree are limited to loans and work-study employment.

Admission into an eligible program of study (i.e., a degree-granting program) is a primary criterion to receive financial aid funding. All Personal Enrichment status students are ineligible for financial aid. Most Guest, Prospective Degree status and Alumni Enrichment students are ineligible for financial aid – however, there are limited exceptions which may be applicable to specific situations. Students admitted via Guest, Prospective Degree or Teaching Certificate status should make an appointment with a Financial Aid Officer to discuss their specific admission status and financing options.

Determining Need

Most financial assistance awarded by the Office of Financial Aid (OFA) is based on financial need as determined by a careful review of the resources of the student and of the student's family.

Need for financial aid is determined by the following calculation:

\[
\text{Cost of Attendance Budget (COA)} - \text{Expected Family Contribution (EFC)} = \text{Financial Aid Eligibility (Need)}
\]

To determine the Expected Family Contribution (EFC), the calculation formula used is the Federal Methodology as mandated by the U.S. Congress. By completing the Free Application for Federal Student Aid (FAFSA), the student’s family contribution is calculated and reported on the Student Aid Report (SAR) which is emailed or mailed to the student’s home by the federal processor.
Cost of Attendance

umd.umich.edu/fa_costdetail

Each year, the Office of Financial Aid (OFA) provides an estimated cost of attending UM-Dearborn for students interested in full-time enrollment. The estimated costs reflect a modest but adequate standard of living for the academic year. While there is some allowance for discretionary expenditures, there is no provision for costs not directly related to school attendance.

Tuition and fees are subject to change without notice by action of the Board of Regents. For current tuition and fees, individuals should consult umd.umich.edu/rr_tuition-fees/.

How to Apply for Financial Aid

Most assistance is committed at a certain time of the year, so be mindful of application dates. Dates assume entrance for the fall semester.

Freshmen and Transfer Students

1. After January 1, preceding Fall enrollment, complete the Free Application for Federal Student Aid (FAFSA). Students must apply online at fafsa.gov. Include student and parent (if applicable) PIN numbers. Release the FAFSA information to the University of Michigan-Dearborn by entering our Federal Title IV School Code 002326. Students and parents should use their Federal Income Tax Returns (FORM 1040, 1040A or 1040EZ) to complete the FAFSA. FAFSA results received in the Office of Financial Aid (OFA) by March 1 will receive first priority consideration for funds.

2. Upon review of your FAFSA, the Federal Processor will provide you with a Student Aid Report (SAR). The Federal Processor will forward an electronic SAR to the email address you provided on the FAFSA. The OFA will receive your information electronically (assuming you have released the information to UM-Dearborn as described in #2 above).

CONTINUING STUDENTS

Students currently enrolled must apply every year at fafsa.gov after January 1 preceding fall enrollment. Applications, SARs and/or ISIRs (resulting from the FAFSA) must be received in the Office of Financial Aid by March 1 to receive priority consideration for funds.

SUMMER

Summer is a separate processing period. Applications for Summer aid are available in late March/early April. Funding for the Summer term(s) is dependent upon funding levels after the two regular terms.

REMINDERS

1. Financial aid applications are processed only after a student has been admitted, but students need not wait until they are admitted to apply for financial aid.
2. Applications submitted after the stated dates will be considered, subject to the availability of funds, but notification may not come until after the term has begun.
3. Students must re-apply for financial aid each year.
4. All correspondence and documents must include the student’s legal name and UMID number.

AWARD NOTIFICATION

New Students

Incoming students are notified in writing via U.S. mail of their initial financial aid offer. Thereafter, communication is via email and UM-Dearborn Connect (see below).

Current/Returning Students

Students are encouraged to regularly check their UM-Dearborn Email account and access their UM-Dearborn Connect account for award notification and other communication from the Office of Financial Aid. Email communication sent to student’s UM-Dearborn Email address directs students to recent notices or activity on UM-Dearborn Connect.

Additive Credit

Additive credits are not eligible for financial aid and will not be used to establish enrollment status for financial aid. Additive credits include EDF courses and most co-op/internship courses. For more information about Additive Credits, see Policies and Procedures Section.

Award Procedures

All financial aid awards are made in accordance with two criteria: demonstrated financial need and the student’s ability to maintain satisfactory academic progress. Completed files are processed on a first-come, first-served basis. A financial aid file is complete only after the following documents or information have been received:

- A completed FAFSA on file with the U.S. Department of Education. The processed FAFSA must be valid and have the University of Michigan-Dearborn school code (002326) listed so that Financial Aid Services can obtain the results electronically.
- The submission of all other information requested by the Office of Financial Aid (required prior to disbursement of federal aid), including verification documents if necessary.

Once a student’s financial aid file has been reviewed and deemed complete by a financial aid counselor, a financial aid package will be processed and an award notification will be mailed or emailed to the student. The initial financial aid package will be based on assumed full-time status for the fall and winter semesters. Awards will be adjusted to actual enrollment. Financial aid awards can be viewed on Dearborn Connect.

Repeating Coursework

Federal financial aid programs can only pay for one repeat of a passed course (passed meaning grade “D” or higher). For example, if a student enrolls and earns a grade of “D” in a course, the student’s enrollment status for financial aid will include that course attempt. If a student enrolls a second time in the same course, the course will be included in the student’s enrollment status for financial aid. If the student enrols for a third time financial aid will not include the course in the student’s enrollment status. When a course is repeated, the previous enrollment is deducted from the calculation of successfully completed courses; therefore, this will lower your Cumulative Completion Rate.

The University of Michigan-Dearborn may allow a successfully-completed course to be repeated (two times, totaling three)
beyond financial aid limitations (one time, totaling two). Only the last grade received is counted in the CGPA.

Types of Financial Aid

There are three basic categories of financial aid: gift aid (scholarships and grants), loans and part-time employment. Most assistance is offered as a package of two or more kinds of aid. Undergraduates in pursuit of the first bachelor’s degree who apply to the OFA are considered for all three types of assistance. Undergraduates in pursuit of a second bachelor’s degree are considered only for loans and work assistance.

GIFT AID

Scholarships and grants do not require repayment or work. Gift aid takes the following forms:

Freshman & Transfer Scholarships

The University offers a variety of scholarship resources for freshman and incoming students. University scholarship funds for incoming students are the following:

Adnan Aswad Transfer Student Scholarship
Alumni Legacy Scholarship
AMP Industry Scholarship
Athletic scholarships
James Baughman Scholarships
Brick Program Endowed Scholarship
Center for the Education of Women (CEW) Scholarship
Chancellor’s Scholarship
Chrysler Scholarships
City Year Detroit Alumni Scholarship
College of Engineering and Computer Science Scholarships
Community College Transfer Scholarship
Community Service Personnel Scholarships
Dean’s Scholarship
Dependent Tuition Scholarship
Detroit Compact Scholarship
Detroit Edison Scholarships
Fielek Scholarship
Ford Motor Company Scholarships
General Dynamics Scholarships
General Motors Scholarships
Husak Scholarship
Junge Family Endowed Scholarship
Klungle Scholarship
Kuratorian Scholarship
Henry Patton Endowed Scholarships
Maize and Blue Scholarship
Natural Science Scholarship
Non-Resident Scholarship
Retired Persons Scholarship
Frederick P. and Violet Sharpe Scholarships
UM-Dearborn Opportunity Scholarships
Wade McCree Scholarship

Each of the scholarships above has specific selection criteria. Some of the funds require prior commitment and participation, most do not. For detailed information regarding criteria for these scholarships, please refer to the OFA website (umd.umich.edu/financialaid), or contact the Office of Admissions and Orientation at (313) 593-5100.

Most scholarships have terms and conditions. These are accessible online at umd.umich.edu/accept.

Grants

Eligibility for the following Federal, State and University grant funds are determined according to demonstration of need (based on the outcome of the FAFSA), and availability of funds. The grants are considered for undergraduate students pursuing a first bachelor’s degree. Unless otherwise stated, at minimum, eligibility requires adherence to Federal fund criteria, maintenance of the University’s Satisfactory Academic Progress guidelines and enrollment on an at-least-half-time basis.

Federal Pell Grants

Pell Grant is a federal program with award ranges from approximately $605 to $5,645. An Expected Family Contribution (EFC) of 0 results in an award of $5,645 based on full-time enrollment for the academic year. The Federal Pell Grant Program is considered the foundation grant to which all other sources are added to create a financial aid package. Pell Grant is one of the few programs that permit some students to receive a prorated portion of the award at a less-than-half-time enrollment status.

The Federal Pell Grant Program has lifetime eligibility limitations for all Pell Grant recipients. Pell Grant recipients are eligible to receive a maximum of 12 full-time semesters of this grant. Once a student has used 12 full-time semesters, he/she is no longer eligible for any additional Federal Pell Grant. There is no appeal for this restriction.

Students are able to track their eligibility used on the National Student Loan Data System (NSLDS). Access is gained using your Federal Student Aid PIN.

The limitations of financial aid eligibility impact financial aid and scholarship programs. It is important to work closely with your academic advisor to stay on track to meet degree requirements to make the best use of financial aid funds.

Federal Supplemental Educational Opportunity Grants (FSEOG)

FSEOG is a federal campus-based program used to supplement the Pell Grant of the neediest Pell Grant recipients. At UM-Dearborn, FSEOG is reserved for students with an Expected Family Contribution (EFC) ranging from $0 – $1,000.

TEACH Grant

(Teacher Education Assistance for College and Higher Education)

Funded by the federal government, the TEACH Grant provides up to $3,760 per year for students whose intention is to teach in a “high need field” (subject area), in an elementary or secondary school serving students from low-income families. As a recipient, students agree (in advance of receipt) to teach a “high need field”, full-time, for a minimum of four years within the eight years following program completion (or progress interruption from the program for which the grant was awarded). The FAFSA is required to be considered for a TEACH Grant. However, recipients do not have to demonstrate “need.”

The TEACH Grant will remain a grant if recipients meet the specific criteria. If recipients do not meet the criteria, the TEACH Grant converts to an unsubsidized loan with interest calculated back to the initial disbursement date(s). For this reason, UM-Dearborn has defined our eligibility criteria as cautiously as possible.
The population UM-Dearborn currently considers for the TEACH Grant are: Seniors (at the undergraduate level) and graduate level students, with a high Cumulative Grade Point Average (CGPA), admitted into a degree-granting program of the College of Education, Health, and Human Services and pursuing majors that align with the “high need fields.”

The minimum CGPA requirement for the TEACH Grant is 3.25. (for undergraduates). The undergraduate degree programs currently considered are: Bachelor of Arts and Bachelor of Science. The majors currently considered are: Education, General Science, Mathematics Studies, Science Education, Science Studies, Special Education and Teaching.

**Michigan Competitive Scholarship (MCS)**

Funded by the State of Michigan, the Michigan Competitive Scholarships are available to many Michigan high school graduates from the Office of Student Scholarships and Grants, Michigan Department of Treasury. Scholarships are awarded to qualifying undergraduates attending public colleges and universities in Michigan. To qualify for the scholarships, students must demonstrate aptitude based on their performance on the American College Test (ACT) as well as financial need as determined by uniformly applied methodology via information from the FAFSA. Recipients must also meet Michigan residency requirements.

**Children of Veterans’ Tuition Grant Program**

The Children of Veterans’ Tuition Grant Program offers Tuition Grant assistance to the children of Michigan veterans who were killed while in service, died as a result of service-related disabilities, or is considered 100% disabled because of service-connected disabilities. The child must be a Michigan resident between the ages of 16 and 25. Upon admission to a Michigan institution of higher learning, eligible undergraduates may qualify for a Tuition Grant of up to $2800 each academic year for full-time enrollment (amounts are prorated for less than full-time enrollment.) Students must maintain a 2.25 or higher cumulative grade point average. Inquiries may be directed to the State at (1-888) 447-2687.

**University of Michigan-Dearborn Grants**

Funded by the University of Michigan-Dearborn, UM-Dearborn Grants are awarded to help high need students defray tuition costs. The Expected Family Contribution (EFC) is used to determine eligibility for these grants. Some UM-Dearborn Grants are strictly need-based, some are need-and merit-based. Given eligibility and funding, applicants are automatically considered for the appropriate type of grant.

**LOANS**

Eligibility for the following Federal loan programs are determined according to demonstration of need (based on the outcome of the FAFSA), availability of funds and also individual, annual and aggregate borrowing parameters. Eligibility requires adherence to Federal fund criteria, maintenance of the University’s Satisfactory Academic Progress guidelines and at minimum enrollment on an at-least-half-time basis. Requirements are subject to change over time. Additional documents may be required (e.g., Promissory Notes and/or Entrance Counseling) prior to disbursement of funds.

**William D. Ford Federal Direct Loan Program**

Federal Direct Loans are available through the William D. Ford Federal Direct Loan Program. Under the Federal Direct Loan Program, funds are lent to student or parent borrowers directly by the U.S. government. There are several types of Direct Loans: the Federal Direct Subsidized Loan (Subsidized FDSL), Federal Direct Unsubsidized Loan (Unsubsidized FDSL), Federal Direct Parent Loan for Undergraduate Students (FDPLUS), Federal Direct PLUS Loans for Graduate and Professional Degree Students and the Federal Direct Consolidation Loan program.

**Federal Direct Subsidized loans** are awarded on the basis of financial need. No interest will accrue during half-time enrollment or authorized periods of deferment. You can help to remember the term by thinking of the Federal government subsidizing interest during these periods. Subsidized loan are available to only to undergraduate students.

**Federal Direct Unsubsidized loans** are not awarded on the basis of financial need. Interest will accrue from the time of disbursement until the loan is paid in full. While you are not required to make monthly payments during half-time enrollment or authorized periods of deferment, interest will accrue on the loan. Each quarter, unpaid interest will capitalize (interest will become additional loan principal). If you make quarterly interest payments on your unsubsidized loan during periods when no repayment is required, you will reduce the amount that you repay over the life of the loan.

| Freshmen (0—24 credits) | $5,500 (only $3,500 can be in subsidized loans) | $9,500 (only $3,500 can be in subsidized loans) |
| Sophomores (25—54 credits) | $6,500 (only $4,500 can be in subsidized loans) | $10,500 (only $4,500 can be in subsidized loans) |
| Juniors and Seniors (55 credits and above) | $7,500 (only $5,500 can be in subsidized loans) | $12,500 (only $5,500 can be in subsidized loans) |

| Graduate (Masters or Doctoral) | Up to $20,500 in unsubsidized loan |
| Maximum Total Debt From Stafford Loans Upon Graduation | $31,000 (only $23,000 can be in subsidized loans) | $57,500 (only $43,500 can be in subsidized loans) | $138,500 (only $118,500 can be in unsubsidized loan). |

Federal Direct Parent Loans for Undergraduate Students

Federal Direct Parent Loans for Undergraduate Students (FDPLUS) are for parent borrowers of dependent, undergraduate students. FDPLUS loans provide additional funds for educational expenses and, like Subsidized and Unsubsidized FDSLs, are funded by the federal government. FDPLUS enables parents to apply for an amount equal to the cost of education (minus the amount of other financial aid for the loan period). Borrowers should refer to studentloans.gov for current interest rates. FDPLUS is limited to parent borrowers who do not have adverse credit histories. FDPLUS funds are disbursed via the (dependent) student's tuition account. FDPLUS proceeds (after tuition is paid) are refunded to the parent borrower via check by mail, (unless the parent borrower authorizes post-tuition proceeds to be released to the student).

Repayment of principal and/or interest generally begins 60 days after the loan is disbursed. However, parent borrowers may also opt to schedule repayment to begin six months after their dependent student (on whose behalf the parent borrowed) ceases continual enrollment on an at least a half-time basis. For those choosing the later, interest will be capitalized on to the principal.

**Federal Direct PLUS Loans for Graduate or Professional Students**

Graduate and professional degree students may also borrow under the PLUS Loan Program. The terms and conditions of the
Graduate/Professional PLUS Loan are similar to those of a Parent PLUS Loan, (including the requirement that the applicant does not have an adverse credit history). Applicants are required to complete the FAFSA.

The amount an applicant may borrow is determined by calculating their cost of attendance minus other financial aid. They also must have applied for their annual loan maximum eligibility under the Federal Direct Subsidized and Unsubsidized Loan Programs before applying for a Graduate/Professional PLUS loan. Like the Parent PLUS, applicants may arrange for current or deferred repayment.

Federal Direct Consolidation Loan
Federal Direct Consolidation Loans are designed to help student and parent borrowers simplify loan repayment. This loan allows the borrower to consolidate several types of federal educational loans with various repayment schedules into one loan, requiring only one payment per month. Interest rates, however, may differ depending on the loan category as well as repayment and deferment options for the borrower.

Borrowers in default on a previous federal education loan may be able to obtain a Direct Consolidation Loan as a method of resuming the educational process and regaining eligibility for financial aid funds. (Those in default are ineligible for any and all financial aid while the default status is unresolved).

Those interested may contact the Direct Loan Servicing Center at 1-(800) 848-0979 or access their web site loanconsolidation.ed.gov/ for additional information.

STUDENT EMPLOYMENT
Federal Work-Study Program—Federal Work-Study is a Title IV program offering part-time work for students who demonstrate financial need. Students work up to 25 hours per week during the regular semester, depending upon the student’s financial need, availability of federal funds and the student’s class schedule. Seven percent of the school’s annual Federal Work-Study allocation will be used to fund community service jobs. Priority is given to those who apply by the March 1 priority deadline. For more information please contact the Office of Career Services.

On-campus Employment
On-campus employment is funded by UM-Dearborn. There are many part-time and temporary jobs available in the academic departments and in the support offices. Eligibility for Federal financial aid funds is not a factor for University employment. Students may contact the Office of Career Services and inquire about job availability. The departments pay 100 percent of these wages. To locate an on-campus job, visit umd.umich.edu/693914.

OTHER SOURCES OF FINANCIAL AID
Other sources of financial assistance are available through government agencies such as Vocational Rehabilitation, Veterans Administration and Social Security. Students needing information on these programs should contact the nearest appropriate agency.

Assistance for educational expenses may also come in the form of tax allowances. The Internal Revenue Service publishes Publication 970. Publication 970 provides information on educational benefits allowed within the tax code. Publication 970 may be obtained from the Internal Revenue Service or viewed online at www.irs.gov/publications/p970.

Satisfactory Academic Progress
Federal regulation requires educational institutions that participate in federal financial aid programs to define and enforce Satisfactory Academic Progress (SAP) standards for students receiving financial aid. UM-Dearborn's Satisfactory Academic Progress policy establishes standards of progress toward a degree. Recipients must achieve and maintain these standards of progress in order to receive funding from the Office of Financial Aid (OFA). These standards are imposed on all federal and state programs, as well as programs supported by UM-Dearborn's General Fund and awarded through the OFA.

The standards of academic progress measure a student’s academic program both qualitatively and quantitatively. These measurements include a Cumulative Grade Point Average (CGPA) requirement, a Cumulative Completion Rate requirement and a Maximum Timeframe requirement. In addition, certain types of courses are limited or excluded from eligibility. The standards apply to all federal financial aid programs and programs funded and administered by the University of Michigan-Dearborn Office of Financial Aid and include degree, (teaching) certificate and consortium guest students who receive financial aid.

SAP is evaluated at the end of each term (Fall, Winter, and Summer). Federal regulations require the University of Michigan-Dearborn to evaluate all students for SAP regardless of whether or not they receive financial aid. SAP is evaluated based on the student’s cumulative academic record, from the date of entry to the university. Students at UM-Dearborn are not required to attend full time in order to receive financial aid or achieve satisfactory academic progress. The complete policy may be found at www.umd.umich.edu/sap

Return of Title IV Funds
Students receiving financial aid have the responsibility to follow the college's withdrawal procedures as outlined in the University of Michigan-Dearborn catalog. The Higher Education Act requires the college to calculate a Return to Title IV funds on all federal financial aid students who withdraw (officially or unofficially) from all classes. A schedule is used to determine the percentage of the semester the student attended based on the withdrawal date/last date of attendance. The percentage of the semester the student attended is calculated as follows:

\[
\text{Number of days in attendance} \div \text{Number of days in Payment Period} \times 100 = \text{Percentage} \times 100
\]

The number of days counted includes all calendar days in the Payment Period including weekends and holidays, but excludes college breaks of five or more days. The percentage of the semester the student attended is used to calculate the amount of the student's earned versus unearned federal aid funds. The unearned portion of federal aid funds received must be returned to the appropriate aid program in accordance with the order of return as mandated by law. The order of return is: Federal Direct Unsubsidized Stafford Student Loan, Federal Direct Subsidized Stafford Student Loan, Federal Direct PLUS Loan, Federal Pell Grant, Federal SEOG Grant, other Title IV aid. The college is responsible for returning the lesser of unearned Title IV aid or unearned institutional charges. Unearned institutional charges are based on the percentage of the semester the student did not attend. The college is responsible for its return of funds first,
followed by the student’s return of funds. The student is responsible for returning:

\[
\text{Amount of unearned Title IV Aid} - \text{Amount of aid school returns} \times \text{Amount Student Returns}
\]

The University must return its portion of unearned Title IV aid (loan and grant) to the appropriate federal program within 45 days of the student's withdrawal date as determined by the Office of Financial Aid. If the amount the student returns includes a federal loan program, the student is responsible for repayment of the loan in accordance with the terms of the loan program. If the amount the student returns includes grant aid, the student must repay 50% of the grant money received, rather than 100%. The student must return unearned grant aid to the college within 45 days from the date of notification. Failure by the student to return or make arrangements to return unearned grant aid to the college within 45 days will result in the student being reported to the U.S. Department of Education (ED). The student will be considered in an overpayment status, and will not be eligible for additional aid at any post-secondary institution participating in Title IV Aid programs. Students who are reported to ED in an Overpayment Status should contact the ED to make payment arrangements to repay the necessary grant funds.

Non-Attendance in Courses
Students who stop attending the University of Michigan-Dearborn may not receive further financial aid disbursements, may lose some or all of the aid that has already been disbursed to their account, may be responsible for repayment of unpaid charges, and may be considered in overpayment status with ED. Students who stop attending all classes without officially withdrawing from the college will be subject to a Return to Title IV Funds calculation at the end of the semester, based on their last date of attendance as determined by faculty.

If it is determined that a student has never attended a course(s), a reduction of some or all financial aid may be necessary. At the time the Office determines a non-successful grade, faculty will be contacted to confirm a last date of educational activity. A non-response from faculty requires the Office of Financial Aid to assume the student has never attended course(s).

Student Consumer Rights and Responsibilities
Section 493.A of the Higher Education Act requires post-secondary educational institutions to disseminate relevant, candid information on student financial aid programs available at the college. These rights and responsibilities may be found in the U.S. Department of Education (ED) publication entitled Funding Your Education: The Guide to Federal Student Aid. This guide is available online at www.edpubs.gov. Any change in a student’s financial situation, address, or school enrollment must be reported to the Office of Financial Aid. Students have the right to request a review of their financial aid package when a change in family or personal circumstances occurs. Students also have a right to review their financial aid records and may do so during counseling hours.

Information Dissemination and Report Disclosure
The U.S. Department of Education requires UM-Dearborn to disseminate information and disclose certain information to students. This information includes, but is not limited to: Voter Registration, Equity in Athletics, Campus Crime and Security, Completion and Transfer-Out Rates, and Drug and Alcohol-Free Campus policies. For further information on the listed topics, please refer to the University website at www.umd.umich.edu/fa_consumerinformationpolicy/.

Registration & Records
Office of Registration and Records
4901 Evergreen Road
1169 University Center
Dearborn MI 48128
313-583-6500
313-593-4896 [FAX]
registrars@umd.umich.edu
umd.umich.edu/registration

The Office of Registration & Records is responsible for coordinating, conducting, and evaluating the registration of students; establishing, monitoring, and maintaining student academic folders and records; preparing, distributing, collecting, and handling Class Lists and Instructor Grade Reports; preparing and providing student transcript copies and enrollment certifications; and accepting, reviewing, and verifying Degrees, Honors and Certificates granted. The office also has the responsibility of preparing and verifying enrollment data and reports for local, state, and federal agencies and organizations. In addition, the Office of Registration & Records is responsible for Veteran Affairs and other on-campus and off-campus programs.

For current registration information, students should consult the Schedule of Classes for the term in which they are enrolling or visit the Registration & Records website: umd.umich.edu/registration.

Attendance (Instructor Requested Drop)
A student who is absent from class meetings of a course during the first week of any term and does not inform the instructor or the instructor's department of his/her intention to continue as a class member may receive a request, by the instructor, to drop the course. The student is responsible for processing all paperwork to officially drop this or any course. Please consult the Registration & Records web site for procedures on how to drop courses.

Auditing
Students are expected to elect courses for credit. The student's program adviser, however, with the concurrence of the instructor involved, may grant official auditing privileges when they are warranted for educational reasons. A student auditing a course is charged the usual fee for that course. Any specific conditions must be enunciated by the instructor at the time permission is granted for the audit. (Contact your unit office for specific information and instructions.)

Change of Fees and Refunds
When appropriate, a change of fees will be processed by the Office of Registration & Records when a student submits a "Add/Drop/Registration Form" or "Withdrawal Form" which affects the fee previously assessed. Individuals are also advised to see "Change in Course Elections" in this Catalog.

Refunds of tuition, fees, or student account credit balances are generated automatically. After authentication and processing, the refund is mailed to the address listed on the student account.
ADDING

A student who increases the number of hours elected will have a new fee assessment prepared by the Office of Registration & Records, which will indicate the appropriate fee to be paid.

DROPPING (FOR FULL, HALF, AND FOUR-WEEK MINI COURSES)

A student who, during the first two weeks of a full term or the first week of a half term or mini-term reduces the number of hours elected, will have a new fee assessment prepared by the Office of Registration & Records, which will indicate the appropriate fee to be paid. No reduction in fee assessments will be made after the end of the second week of classes (first week of a half-term) except in cases of withdrawal from the University.

DROPPING (FOR LESS THAN ONE-MONTH MINI COURSES)

A student may drop from a less than one-month mini-course on or before the first class meeting of such a course without financial penalty. Thereafter, full tuition will be assessed and the academic record will reflect the symbol for withdrawal ("W").

WITHDRAWING (FOR FULL, HALF, AND FOUR-WEEK MINI COURSES)

A student who withdraws from UM-Dearborn is assessed as follows:

1. Students who withdraw prior to the first day of classes will not be charged any tuition assessments or fees.
2. Students who withdraw during the first week of a half term or mini-term, or during the first two weeks of a full term, will not be charged any tuition assessments or fees.
3. Students who withdraw during the second through third week in a half term or mini-term, or in the third through sixth week of a full term, will be charged 50% of the tuition assessed, as well as the non-refundable registration assessment. In addition, there is no reduction in lab/course fees or technology assessment.
4. Students withdrawing after the time periods indicated in Paragraph "3" will be assessed full tuition and fees.

WITHDRAWING (FOR LESS THAN ONE-MONTH MINI COURSES)

1. Students who withdraw from a less than one-month mini course before the first class meeting of such a course will not be charged any tuition assessments or fees.
2. Students who withdraw from a less than one-month mini course on the first day of class will not be charged any tuition assessments or fees.
3. Students who withdraw from a less than one-month mini course on the second day of class will be assessed 50% of the tuition assessed, as well as the non-refundable registration assessment. In addition, there will be no reduction in lab/course fees or technology assessment.
4. After the second class meeting of such a course, the student shall pay all fees and assessments.

Change in Course Elections: Add, Drop, Withdrawal

(See Also “Change Of Fees And Refunds”)

Changes in course elections include adding a course(s), dropping a course(s), substituting course(s), and withdrawing (discontinuing) all courses. All students will process their add/drop and withdrawals online or at the Enrollment Services Counter (1169 UC, with signatures when appropriate).

Please consult the section on “Change of Fees and Refunds” for the impact on tuition and fees.

ADD

A student may add courses or change a standard graded course to Pass/Fail or Audit during the first two weeks of a full term, the first week of a half term or mini-term, or before the second class meeting of a less than one-month mini-term. Any exceptions for adding courses must be approved by the student’s academic unit.

DROP

A student may drop a course(s) during the first two weeks of a full term, the first week of a half term or mini-term, or before the second class meeting of a less than one-month mini-term. No record of the student’s brief enrollment will be recorded. Courses may be dropped during the third through the ninth week of classes in a full term, during the second through the fourth week of classes in a half term or mini-term, and before the third class meeting in a less than one-month mini-term.

The effective date of the drop is the date the drop form is received and signed at the Enrollment Services Counter.

Permission to drop courses under circumstances other than stated above will require the approval of the student’s academic unit.

WITHDRAWAL

A student may discontinue all of his/her courses through the last day of classes (for the term) by withdrawing from the term. The completed form must be presented to the Enrollment Services Counter for processing. The effective date of the withdrawal is the date the withdrawal form is received and signed at the Enrollment Services Counter.

If a student withdraws (drops all courses) from a term during the first two weeks of classes in a full term, the first week of classes in a half term or mini-term, or before the second class meeting in a less than one-month mini-term, no record of the student’s brief enrollment will be recorded. Beyond those deadlines, the mark of W will appear on the transcript.

Permission to withdraw under circumstances other than stated above will require the approval of the student’s academic unit.
Consecutive Withdrawals

Every student's academic record is reviewed for the purpose of observing academic progress at the end of each term in which the student is enrolled. A student who has not enrolled for one calendar year or who has withdrawn for two consecutive terms must apply for readmission and may not re-register without the explicit written permission of the student's unit office. (PDS/PE students see Academic Support and Outreach Services, 2136 UC.)

Required Withdrawals

Unless extenuating circumstances are presented by petition, a student who is required to withdraw from one academic unit may not be admitted to another UM-Dearborn academic unit within the same term as that in which such withdrawal action is taken.

REFUNDS AND FINANCIAL AID

Students receiving Title IV financial aid may be required to repay some or all of the financial aid received for a term in which the student withdraws. Students required to repay financial aid funds will have the refunds allocated to financial aid programs in the following order: Federal Direct Loans, Federal Perkins Loans, Pell, SEOG, other Title IV, federal, state, private, and institutional programs and finally, to the student. Students receiving financial aid and considering withdrawal should seek the advice of a Financial Aid Officer prior to taking such action.

Class Standing

Class standing is determined by the total credits earned that apply toward the student's degree program. The various classifications are as follows (numbers indicate semester hours):

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0-24)</td>
<td>(25-54)</td>
<td>(55-84)</td>
<td>(85+)</td>
</tr>
</tbody>
</table>

Grades and Grading

Grading System

Grade point averages (scholastic averages) are computed by dividing the honor points a student has earned by the hours elected. The term grade point average and the cumulative grade point average are computed for each student at the end of each term and become part of the student's official UM-Dearborn academic record.

Symbols used in the grade reporting system common to all units are: F, failed (pass/fail option election); I, incomplete; NR, grade not reported; P, passed (pass/fail option election); S, satisfactory (courses graded S/E or S/U); NC, no credit; VI, audit; W, drop/withdrawal; X, absent from final examination; U, unsatisfactory (courses graded S/U only); Y, indicates the course extends beyond the term.

The grades of E, IE, UE or XE are not assigned honor points and thus will lower the student's grade point average. The grade NC is used only for certain courses. When this grade is officially granted, the grade NC and the course will appear on the student's transcript, but the course will not be used in computing a grade point average.

The recording of grades on a student's official academic record is governed by the following (4.0) grading system:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Honor Points</th>
<th>Letter Grade</th>
<th>Honor Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A,A+</td>
<td>4.0</td>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.4</td>
<td>D+</td>
<td>1.4</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.4</td>
<td>E</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Note: The A+ and D- grades are not used by Engineering instructors. The A+ grade is not used by Education instructors.

Grades associated with transfer credit from other schools or colleges (including other University of Michigan campuses) are neither recorded nor used in computing grade point averages of students.

Students may repeat a course no more than two times. All grades received must appear on the transcript, but only the last grade received is counted in the grade point average (GPA). Please see the Repeat Course Policy for more information.

Grade Notations

The following notations may appear on a transcript to describe special situations in regard to a course.

NC No Credit. No honor points. Not computed in the grade point average. Used only in specially approved courses that are graded A, B, C, No Credit.

I Incomplete. No honor points. A student whose coursework for the term (other than final examination) is incomplete in a minor way may, upon completion and approval of the I Contract Form, be granted the privilege of completing the work within a five-week period for the College of Engineering and Computer Science or the College of Business, and a four-month period for the College of Arts, Sciences, and Letters and College of Education, Health, and Human Services beginning on the first day of classes of the immediately following term. If granted this privilege, a grade of I will be recorded. Failure to complete the required work within the specified time, or the denial of this privilege by the instructor, will result in a grade of E for the final grade. In extenuating circumstances an extension beyond the stated period may be requested by means of a petition that has been endorsed by the instructor and approved by the Academic Standards Committee. However, such arrangements for completing the work must be made within the above stipulated time period. Failure to complete the required work within the specified time will result in a grade of I being automatically treated as an IE and counted in the student's grade point average. The I will remain on the transcript even after the official final grade is assigned.

X Absent from Final Examination. No honor points. A student who is unavoidably absent from a final examination may be granted the privilege of making up the examination within five weeks after the closing date of the term involved. If granted this privilege, a mark of X will be recorded. Failure to take the examination within the specified time, or the denial of this privilege by the instructor, will result in a mark of E for the final grade. In extenuating circumstances an extension beyond the stated period may be requested by means of a petition that has been endorsed by the instructor. However, such arrangements for completing the work must be made within the above five-week period. The grade of X will automatically be converted to...
tution fees are assessed.

Y Course extended beyond term end. No credit. No honor points. A mark of Y indicates that a course extends beyond the end of one term. This mark is only used for courses that have been specially designed and approved to extend beyond the end of one term. A course with a Y mark may not be completed after graduation. If such a course is not completed, the Y will be converted to an E upon graduation.

NR Grade Not Reported. No honor points. Student should consult the Registrar immediately.

W Official Withdrawal. No credit. No honor points. Not computed in the grade point average. Students who drop a course or withdraw from all courses for a term before the deadline for official drops and/or withdrawals will receive for these courses the W notation. This notation may not be removed from the transcript.

S/E. Used only for specially approved courses. If a student passes, an S (satisfactory) is awarded. It is not computed into the grade point average. If a student does not pass, an E is awarded. If a student stops attending, without officially dropping, a UE is awarded. Both the E and the UE are computed in the GPA as failing grades. (Exception: Failing grades in additive credit courses that are graded S/E have no impact on the GPA.)

P/F Pass/Fail Option. No honor points. A student must elect to take a course under the Pass/Fail option. Please check with your college for its policy on electing courses as pass/fail.

UE Unearned Fail. This grade is assigned to any student who has never attended, or stopped attending class during the semester and did not officially drop. It is computed in the GPA the same as an E.

VI Visitor-Official Audit. No credit. No honor points. Not computed into the grade point average. An official audit, or visitor status, allows a student to attend a course but not elect it for credit. The VI notation appears on the transcript. Regular tuition fees are assessed.

Change of Grades

The grade that an instructor records on the final grade sheet and that appears on the student's subsequent transcript is assumed to be final; that is, the instructor's official evaluation of all of a student's performance and work completed by the official end of the term (the last day of the final examination week).

Recognizing that mistakes can be made, UM-Dearborn permits a student to ask an instructor for a review of a grade within the four-month period after the end of the term involved. After a four-month period has passed, a student may initiate a request for a review only through the petition process involving the student's college Academic Standards Committee (or comparable group), whose decision shall be final. Such a review is entirely separate and distinct from the circumstances involving an X (Absent from Final Examination), I (Incomplete Coursework), or a Y (Course Extends Beyond Term).

Graduation/Application for Diploma

Each candidate for a degree must file a Degree/Diploma Application with the Office of Registration & Records, typically within ten days of the beginning date of classes for the term in which the student expects to complete the requirements for degree. Please consult the Applying to Graduate Webpage, umd.umich.edu/rr_apply-graduate, for specific dates. Applications will not be accepted after the published deadlines. If an application for a diploma was filed for a previous graduation period in which the student did not graduate, a new application is necessary. Degrees are granted at the end of the fall, winter, and summer terms, even though commencement exercises are held only in April (or May) and December.

Registration Information

ACADEMIC ADVISING

Academic advising should be sought from the student’s school, college or graduate department office prior to registration.

APPOINTMENT TIME TO REGISTER

Continuing students who are eligible to register via the Web can determine their registration date based on credits earned as listed in the registration timetable. New students and those participating in non-traditional programs will receive written information regarding their registration appointment time. The Registration Timetable is available on the Office of Registration & Records Website (umd.umich.edu/registration).

CLOSED COURSES

Closed course information will be posted at the Enrollment Services Counter (1169 UC) and on the Office of Registration & Records Website (umd.umich.edu/registration).

COURSE LOAD

Students may elect a maximum of 18 credit hours in a given semester. Students should contact their college for policies and procedures regarding electing hours in excess of the maximum.

HOLDS

Students will not be allowed to register if they have a hold. A hold could result from having outstanding financial obligations to the University, academic probation, mandatory advising or other academic or non-academic conditions that require resolution prior to registration. Students can check their holds on UM-Dearborn Connect. See the “View Your Holds” page located in the secure area under the Student Accounts menu.

PERSONAL IDENTIFICATION NUMBER (PIN)

The University originally assigns your birth date (mmddyy) as your personal identification number (PIN). For your security (if you have not already done so), change this number immediately via UM-Dearborn Connect. Once you have changed the PIN, your new PIN remains in effect until you change it again. If you forget your PIN, use the ‘Forgot PIN’ button in UM-Dearborn Connect or you must report in person, with picture identification, to the Enrollment Service Counter to have your PIN reset.
REGISTRATION OPTIONS

UM-Dearborn offers eligible students two options for registration:

• Walk-in
• Web*

*All students (with the exception of some non-traditional programs) who have been enrolled at least one term within the last year, new graduate students, and readmitted students who do not have financial obligations, holds or other registration restrictions are eligible to register via UM-Dearborn Connect. New transfer and new freshman students will register during New Student Orientation.

Reporting of Grades

The Office of Registration & Records reports term grades to students via a Final Grade Report in UM-Dearborn Connect. Grades are also reported on each student’s Academic Transcript. Updated Academic Transcripts are available to students two weeks following the close of the final examination period. Students requiring more immediate service may contact Enrollment Services for assistance. (Also see “Request for Transcripts”).

Residency Classification Guidelines

PURPOSE OF THE RESIDENCY CLASSIFICATION GUIDELINES

The University of Michigan enrolls students from 50 states and more than 120 countries. Residency Classification Guidelines have been developed to ensure that decisions about whether a student pays in-state or out-of-state tuition are fair and equitable and that applicants for admission or enrolled students who believe they are Michigan residents understand they may be required to complete an Application for Resident Classification and provide additional information to document their residency status.

CIRCUMSTANCES UNDER WHICH YOU MUST FILE A RESIDENCY APPLICATION

If you claim Michigan resident status and any of the following circumstances apply, you must file an Application for Resident Classification and be approved to qualify for in-state tuition:

• you currently live outside the state of Michigan for any purpose, including, but not limited to, education, volunteer activities, military service, travel, employment.
• you have attended or graduated from a college outside the state of Michigan.
• you have been employed or domiciled outside the state of Michigan within the last three years.
• you are not a U.S. citizen or Permanent Resident Alien (if you are a Permanent Resident Alien, you must have a Permanent Resident Alien card).
• your spouse, partner, or parent is in Michigan as a nonresident student, medical resident, fellow, or for military assignment or other temporary employment.
• you are 24 years of age or younger and a parent lives outside the state of Michigan.
• you have attended or graduated from an out-of-state high school and have been involved in educational pursuits for the majority of time since high school graduation.
• you previously attended any U-M campus (Ann Arbor, Dearborn, or Flint) as a nonresident. Other circumstances may also require you to file a residency application. The University reserves the right to audit prospective or enrolled students at any time regarding eligibility for resident classification and to reclassify students who are classified incorrectly.

HOW TO FILE A RESIDENCY APPLICATION

Residency applications and in-person assistance are available at the Residency Classification Office, University of Michigan Office of the Registrar, 1210 LSA Building, 500 S. State St., Ann Arbor, MI 48109-1382, phone (734) 764-1400. Business hours are 8 a.m.-5 p.m. weekdays. Applications can also be downloaded at ro.umich.edu/residency-application.pdf. Completed applications should be submitted to the Residency Classification Office.

FILING DEADLINES

September 30 for Fall Term  
January 31 for Winter Term

July 31 for Spring, Spring/Summer, and Summer Terms

Applications must be received in the Residency Classification Office by 5 p.m. on the deadline date.

The deadline date is always after the first day of classes of the term in which you are enrolling and seeking residency.

If the deadline falls on a weekend, it will be extended to the next business day.

These deadlines apply to all University of Michigan schools, colleges, and campuses. For the On-Job/On-Campus program only, filing deadlines are 30 calendar days after the first scheduled day of classes of the term applied for.

You may apply for resident classification for any term in which you are enrolled or intend to enroll. Late applications will be assessed a nonrefundable $300 late fee and will be accepted up to the last published day of classes of the term for which you are applying. Late applications received after the last day of classes will be processed for the following term. In all cases, decisions will be based only on those facts that are in place by the original filing deadline for the term under consideration.

REQUIRED DOCUMENTS

Along with the completed Application for Resident Classification form, you must submit the following:

• for all applicants: copies of your driver's license and the license(s) of the person or persons upon whom you are basing your claim to resident eligibility.
• for all applicants: copies of the front and signature pages of the most recent year's federal and state income tax returns and W2 forms for you and the person or persons upon whom you are basing your claim to resident eligibility.
• for applicants born outside the U.S.: verification of U.S. citizenship or visa status.
• for applicants who are dependents (see section B-2): copies of the front and signature pages of your parents' most recent year's federal and state income tax returns with accompanying W2 forms.

GENERAL INFORMATION
The following circumstances and activities, though not conclusive or exhaustive, may lend support to a claim to eligibility for resident classification if all other applicable Guidelines are met:

- both parents/parents-in-law (in the case of divorce, one parent/parent-in-law) permanently domiciled in Michigan as demonstrated by permanent employment in the state, establishment of a primary household in Michigan, and severance of out-of-state ties. Applicant must also show severance of out-of-state ties.
- applicant employed in Michigan in a full-time, permanent position, provided that the applicant's employment is the primary purpose for his or her presence in the state and that out-of-state ties have been severed. If the applicant is married or has a partner, the employment must be the primary purpose for the family's presence in Michigan.
- spouse or partner employed in Michigan in a full-time, permanent position, provided that the employment of the spouse or partner is the primary purpose for the family's presence in the state and that out-of-state ties have been severed.

2. Circumstances that do not demonstrate permanent domicile

The circumstances and activities listed below are temporary or indeterminate and do not demonstrate permanent domicile. Individuals whose presence in Michigan and claim to Michigan resident status are based solely on one or more of the following are not eligible for resident classification:

- enrollment in high school, community college, or university.
- participation in a medical residency program, fellowship, or internship.
- employment that is temporary or short-term or of the type usually considered an internship or apprenticeship.
- employment of the spouse or partner of an individual who is in Michigan for temporary pursuits.
- employment in a position normally held by a student.
- military assignment in Michigan for the applicant or the applicant's spouse, partner, or parent (see section D for special military provision).
- payment of Michigan income tax and/or filing of Michigan resident income tax returns.
- presence of relatives (other than parents).
- ownership of property or payment of Michigan property taxes.
- possession of a Michigan driver's license or voter's registration.
- possession of a Permanent Resident Alien visa.
- continuous physical presence for one year or more.
- statement of intent to be domiciled in Michigan.

B. ADDITIONAL REQUIREMENTS, DEFINITIONS, AND SPECIAL CIRCUMSTANCES

Even if one or more of the following circumstances applies to you, you may still need to file an application for resident classification. If you have had any out-of-state activity or have any out-of-state ties, you must submit an Application for Resident Classification by the filing deadline to request resident classification and confirm your eligibility. You must document that you meet all of the following applicable criteria to be eligible for resident classification and payment of in-state tuition.
1. Immigrants and Aliens
You must be entitled to reside permanently in the United States to be eligible for resident classification at the University. However, like U.S. citizens, you must also show you have established a Michigan domicile as defined in these Guidelines. The Residency Classification Office will review Applications for Resident Classification if you are in one of the following immigrant categories. You must provide official documentation showing your status.

- **Permanent Resident Aliens** (Must be fully processed and approved and possess Permanent Resident Alien card or stamp in a passport verifying final approval by filing deadline for applicable term.)
- **Refugees** (I-94 card or passport must designate "Refugee").
- **Asylees** (I-94 card or passport must designate "Asylee").
- **A, E, G and I visa holders** (Exception: Dependent children who hold an E visa are not eligible to be considered for resident classification.)

*Please note that individuals holding temporary visas, such as, but not limited to, F, H, J, K, L, Parolee, TN, TD, etc., are not eligible for resident classification at the University of Michigan regardless of their other circumstances.

2. Dependent Students
For University of Michigan residency classification purposes, you are presumed to be a dependent of your parents if you are 24 years of age or younger and (1) have been primarily involved in educational pursuits, or (2) have not been financially self-supporting through employment.

a. **Residents**

   i. **Dependent Student — Parents/Parents-in-law in Michigan** If your parents/parents-in-law are domiciled in Michigan as defined by University Residency Classification Guidelines, you are presumed to be eligible for resident classification as long as you can demonstrate establishment of a Michigan domicile and severance of out-of-state ties.

   ii. **Dependent Student of Divorced Parents/Parents-in-law — One Parent/Parent-in-law in Michigan** If your parents/parents-in-law are divorced and one parent/parent-in-law is domiciled in Michigan as defined by University Residency Classification Guidelines, you are presumed to be eligible for resident classification as long as you can demonstrate establishment of a Michigan domicile and severance of out-of-state ties.

   iii. **Dependent Resident Student Who Remains in Michigan When Parents Leave the State**. If you are a student living in Michigan with your parents and permanently domiciled in the state as defined by University Residency Classification Guidelines, you are presumed to retain resident status eligibility if your parents leave the state provided: (1) you have completed at least your junior year of high school prior to your parents' departure, (2) you remain in Michigan, enrolled full-time in high school or an institution of higher education, and (3) you have not taken steps to establish a domicile outside Michigan or any other action inconsistent with maintaining a domicile in Michigan.

b. **Nonresidents**
The University presumes you are a nonresident if you are a dependent student and your parents are domiciled outside the state of Michigan. (See exception under a-i and a-ii for married dependent students whose parents-in-law are domiciled in Michigan.)

3. Michigan Residents and Absences From the State
You may be able to retain your eligibility for resident classification under the conditions listed below if you are domiciled in Michigan as defined by University Residency Classification Guidelines and leave the state for certain types of activities. However, if you have been absent from the state, you must file an Application for Resident Classification by the appropriate filing deadline to request resident classification and demonstrate your eligibility.

a. **Absence for Active Duty Military Service** (U.S. Army, Navy, Air Force, Marines, Coast Guard, Officers in the Public Health Service), Non-Administrative Missionary Work, Peace Corps, AmeriCorps, or Similar Philanthropic Work

   If you are domiciled in Michigan at the time of entry into active military duty, missionary work, Peace Corps, or similar service, you are presumed to retain your eligibility for resident classification as long as you are on continuous active duty or in continuous service and continuously claim Michigan as the state of legal residence for income tax purposes. If you are a dependent child of such an individual, you are presumed to be eligible for resident classification provided: (1) you are coming to the University of Michigan directly from high school or have been continuously enrolled in college since graduating from high school, and (2) you have not claimed residency for tuition purposes elsewhere.

b. **Absence Due to Temporary Foreign Assignment**

   If you are a dependent student domiciled in Michigan with your parents immediately preceding an absence for a temporary foreign assignment with a parent’s Michigan employer, you may retain your eligibility for resident classification provided (1) your family members hold temporary visas in the foreign country, and (2) you return directly to Michigan and remain in the state for educational purposes after leaving the foreign country.

c. **Temporary Absence of Less Than One Year**

   If you are independently domiciled in Michigan immediately preceding a temporary absence of less than one year, you are presumed to retain eligibility for resident classification provided that out-of-state ties are severed upon your return to Michigan.

C. **THE APPEAL PROCESS**
If you filed an Application for Resident Classification and were denied by the Residency Classification Office, you have recourse to an appeal process by filing a written appeal within 30 calendar days of the denial.

The Board of Regents established the Residency Appeal Committee to review decisions made by the Residency Classification Office. The Appeal Committee is chaired by the Vice President and Secretary of the University and includes two other University administrators, a faculty member, and a student. The Residency Coordinator and other staff members in the Residency Classification Office are not members of the Appeal Committee.

Appeals, which must be in writing, should be submitted to the Residency Classification Office. Please note that the written appeal must be received by the Residency Classification Office within 30 calendar days of the date on the denial letter. If the deadline falls on a weekend or University holiday, it will be extended to the next business day.
If there is additional information you would like the Residency Appeal Committee to consider beyond the materials you have already submitted, you should submit that additional information, in writing, with appropriate supporting documentation, when you submit your written appeal. Your request and any additional information and documentation you provide will be forwarded to the Residency Appeal Committee with your original file.

All communications to the Residency Appeal Committee must be in writing. Personal contact with a member of the Committee could disqualify the member from participating in the decision regarding your residency. The Residency Appeal Committee does not meet in person with students, and appearances on behalf of students are not permitted at appeal meetings.

After the Appeal Committee has completed its deliberations, you will receive the Committee's final decision in writing. This will conclude the appeal process for the term covered by the application. The University will not conduct any further review of the decision.

D. SPECIAL WAIVER OF OUT-OF-STATE TUITION FOR REGULAR ACTIVE DUTY MILITARY PERSONNEL LIVING OR STATIONED IN MICHIGAN

Regular active duty military personnel who are living or stationed in Michigan, as well as their accompanying spouses and dependent children, will be allowed to pay in-state tuition while they attend the University of Michigan, even though they will not be eligible to be classified as residents under the Residency Classification Guidelines. This waiver is available to persons in the U.S. Army, Navy, Air Force, Marines and Coast Guard, and to officers in the Public Health Service. When the military person upon whom the waiver is based leaves the state, a child or spouse who remains in Michigan enrolled full-time in high school or an institution of higher learning will continue to be eligible to receive the waiver. Children must have completed at least the junior year of high school prior to the military person's departure. In order to request this waiver, the student must submit a residency application by the applicable filing deadline and provide documentation demonstrating eligibility.

WARNING: MISREPRESENTATION OR FALSIFICATION OF INFORMATION CAN BE COSTLY

Individuals who provide false or misleading information or omit relevant information in an application for admission or for resident classification, or any other document related to residency eligibility, may be subject to legal or disciplinary measures. Students who are improperly classified as residents based on such information will have their residency classification changed and may be retroactively charged nonresident tuition for the period of time they were improperly classified.

QUESTIONS?
For questions on Residency Regulations, please contact:
Residency Classification Office
Office of the Registrar
1210 LSA Building
500 South State Street
Ann Arbor, MI 48109-1382
Phone: (734) 764-1400

Transcripts

A transcript is a student's complete academic record at UM-Dearborn. The transcript(s) that were presented for admission have become an integral part of the files of the admitting offices and cannot be released, either directly or for copying purposes. It will be necessary for you to write directly to the institutions concerned to obtain copies of those previous records. In addition, documents such as SAT/ACT scores are not available from the Office of Registration & Records. UM-Dearborn transcripts will be released only upon written request of the student.

FINAL TRANSCRIPT

Once the degree has been posted on the transcripts, the transcript is final and the record is closed. No changes can be made to it for any reason.

Students wishing more detailed information about final grades should make that request in the office of their instructional unit (CASL, CECS, COB, or CEHHS).

REQUESTS FOR TRANSCRIPTS

Requests for copies of UM-Dearborn transcripts should be made online via UM-Dearborn Connect or at the Office of Registration & Records, 1169 UC, Dearborn, MI 48128-2406. Requests may also be faxed to (313) 593-5697. For additional information, please telephone (313) 583-6500.

If the student indicates that he/she has also taken work through the Extension Service or at other campuses of the University, the Office of Registration & Records will forward the order to the appropriate offices which will send copies to the address indicated on the order. There is no charge for transcripts. Generally, up to five (5) working days are allowed for processing a UM-Dearborn transcript. Under certain circumstances, such as the end of the term or upon graduation, requests may take longer to process. Requests will not be processed if a student has any financial obligation outstanding to the University.

Tuition Assessments and Fee Regulation

Tuition and fees are subject to the approval of the Regents of the University and are subject to change at any time.

POLICIES GOVERNING STUDENT TUITION AND FEES

The Board of Regents shall determine the level of tuition and fees and a schedule of such shall be published. All other student tuition and fees shall be fixed by the Campus Fee Committee.

PAYMENT OF TUITION AND FEES

All tuition and fees are payable in accordance with regulations established by the University providing only that said regulations may not defer payment beyond the end of the term for which they are assessed.

Payment for tuition and fees may be made in full at the Cashier's Office, or online, after registration. The laboratory and/or course fees are refundable if the course is dropped during the first two weeks of a full term, the first week of a half term or mini-term, or before the second class meeting of a less than one-month mini-term. The procedure for obtaining a refund is described in the section "Change of Fees and Refunds."
APPLICATION FEES
A non-refundable application fee of $30 will be required of each applicant for a degree or certificate program at UM-Dearborn. Students who have paid the appropriate application fee (graduate or undergraduate) at another campus of the University will not be assessed a second fee. There is no application fee charged to guest students.

COURSE LEVEL ASSESSMENT
Undergraduate students electing Graduate course(s) will be assessed at the Graduate Tuition rate for the graduate course(s). Graduate courses are numbered 500 and above. (Effective Winter 2007)
Graduate students electing Undergraduate course(s) will be assessed at the Undergraduate Tuition rate for Undergraduate course(s). Undergraduate courses are numbered 499 and below. (Effective Fall 2006)
Please note: This tuition assessment is dependent on various factors and a change in tuition may not occur for some students.

DUAL STATUS TUITION AND FEES:
GRADUATE AND UNDERGRADUATE
Seniors who are within six hours of completing the requirements for graduation and who have been admitted to a UM-Dearborn graduate program may, with both undergraduate and graduate advisors' approval, register simultaneously in a UM-Dearborn undergraduate unit and in a graduate program. Tuition and fees will be assessed at the graduate program level for graduate courses and the undergraduate program level for undergraduate courses.

DUAL ENROLLMENT TUITION AND FEES:
ON TWO CAMPUSES OF THE UNIVERSITY
A student electing courses at UM-Dearborn and at another campus of the University, by means of a "Guest Admission," will pay the appropriate tuition and fees at each campus. The only exception is that the student will not be assessed tuition and fees totaling more than a full program tuition and fees at whichever campus may have the higher full program tuition and fees.

UNDERGRADUATE CREDIT BY EXAMINATION (CBE)
See the Special Examinations Policy.

LABORATORY AND/OR COURSE FEES
Students will be assessed a laboratory or course fee if enrolled in any of the courses so designated in the Schedule of Classes (e.g., "Lab fee $50.00").

LATE REGISTRATION ASSESSMENT
A late registration assessment of up to $45 will be assessed for anyone registering later than two weeks (one week for a half term) after the first day of classes. It should be noted that students are not ordinarily permitted to register after the first two weeks of a full term, the first week of a half term or mini-term, or after the second class meeting of a less than one-month mini-term.

In exceptional cases, a student might be permitted to enroll even after the first two weeks (and be charged a late fee) if the student has obtained the written approval of the dean (or a designated representative) of the college or school. Late registrants not pursuing a degree (PDS/PES) must have the approval of both the Office of Academic Support and Outreach Services and the Registrar, as well as the approval of any instructors involved.

FEES INCLUDED WITHIN TUITION
The tuition and fees assessed by the University include a nominal charge for parking and other transportation-related services, information technology services, the health referral service to the Henry Ford Hospital-Fairlane Clinic, facilities debt service, and support for student activities and organizations.

EXEMPTION FROM PAYMENT OF FEES
No exemption from the payment of fees shall be granted. Failure to fulfill financial obligations to the University may result in disciplinary action, including the withholding of degrees and transcripts.

NEW STUDENT FEE
The New Student Fee of $75.00 is charged to all new incoming degree-seeking students at the time of registration. The fee will be automatically posted to the student’s account. This fee covers operational expenses required to deliver high-quality orientation programming for students. It also includes the administration of placement exams, regardless of participation in these activities.

The New Student Fee is non-refundable unless a student withdraws from all courses in his/her first term on or before the end of the drop/add period (the first two weeks of the term).

TUITION AND FEES
Students should obtain current tuition and fee information from the Office of Registration & Records Tuition & Fees webpage, umd.umich.edu/rr_tuition-fees/.

Additional Assessments
Course levels 300 and above are assessed an additional amount per credit hour. For current tuition and fee information, students should consult the Office of Registration & Records Tuition & Fees webpage, umd.umich.edu/rr_tuition-fees/.

Technology Assessment
A Technology Assessment is charged to all students. This assessment varies by academic unit. For current tuition and fee information, students should consult the Office of Registration & Records Tuition & Fees webpage, umd.umich.edu/rr_tuition-fees/.

TUITION REFUND INSURANCE PLAN
The Tuition Refund Insurance Plan is an elective insurance which provides coverage for tuition and fees. If a student withdraws due to illness/injury or psychological/emotional reasons, the Tuition Refund Insurance Plan returns 85% of the insured term tuition and fees when specific insurance company criteria has been met.

For Tuition Refund Insurance Plan information or to enroll online, please refer to the Tuition Refund Insurance Plan website: umd.umich.edu/rr_tuition-fees-refund-plan.

SPECIAL TUITION AND FEE ADJUSTMENTS
The Registrar and the Provost for Academic Affairs are authorized to make adjustments in the application of the policy stated above when, in their judgment, unusual circumstances warrant such action. Circumstances that may warrant special consideration include the death or serious illness of the student. The student who wishes to have his/her case reviewed must submit petition and submit documentation to the Office of Registration & Records, Room 1169, University Center, either in person or by mail. It is the responsibility of the student to make sure that required documents are submitted.
Except in rare and unusual circumstances, petitions will not be accepted after the last day of classes for the term concerned. Additionally, petitions will not be accepted once an account has been turned over for collection.

Verification of Enrollment

The following scale is used when verifying student enrollment status at UM-Dearborn:

<table>
<thead>
<tr>
<th>Status</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>12 or more hours</td>
<td>8 or more hours</td>
</tr>
<tr>
<td>Three-Quarter Time</td>
<td>9-11 hours</td>
<td>6-7 hours</td>
</tr>
<tr>
<td>Half Time</td>
<td>6 to 8 hours</td>
<td>4-5 hours</td>
</tr>
<tr>
<td>Less Than Half Time</td>
<td>5 or less hours</td>
<td>3 hours or less</td>
</tr>
</tbody>
</table>

Veteran Affairs

Enrollment Services/Registration and Records is primarily responsible for the administration of veteran's education benefits programs and enrollment certifications. Our goal is to effectively assist veterans, or the dependents of veterans, with the certification process. Students who are eligible for VA educational benefits are able to apply their respective benefits for their educational endeavors at UM-Dearborn with assistance from this office.

All students who are eligible for, and elect to receive, education and training benefits while attending UM-Dearborn, may address inquiries for information to the Office of Veteran Affairs, Enrollment Services/Registration and Records, 4901 Evergreen Road, 1169 UC, Dearborn, MI 48128-2406, (313) 583-6500 or umd-va@umich.edu. Additional information regarding certification, and the policies and procedures for certification of benefits can be found on our website at: umd.umich.edu/rr_va. Questions regarding the eligibility of a veteran or dependent can be answered by calling the St. Louis Regional Office at 1-888-GIBILL1 (442-4551) or connecting to the Department of Veteran Affairs website at: gibill.va.gov/.

Policies and Procedures

Academic Standing

Every student's academic record is reviewed, for the purpose of observing academic progress, at the end of each term in which the student is enrolled at UM-Dearborn.

To be in good scholastic standing, a student must have a cumulative grade point average of at least 2.0. Students who fall below 2.0 in their grade point average will be placed on academic probation. After having been placed on academic probation, the student is allowed one more term of coursework on campus in order to attempt to bring the cumulative grade point average up to the required 2.0 level. If the student does not return to good scholastic standing at the completion of that term, the student may not re-register without the explicit written permission of the unit.

This general description of standards must be augmented by the regulations of each individual unit. All students must, therefore, be familiar with the academic requirements and rules of their own college.

ACADEMIC STANDING APPEALS

Students who wish to appeal decisions on their academic status, made by a unit's committee on academic standing, may do so by addressing a petition to the executive committee (the chief policy body) of the unit in which they are admitted. If a negative decision is rendered at this high level, the student may, under unusual circumstances, appeal the case to the Academic Appeals Board of UM-Dearborn.

1. The UM-Dearborn Academic Appeals Board shall hear cases dealing only with academic matters, excluding matters of academic misconduct, which shall be addressed by the Code Appeals Board as defined in the UM-Dearborn Statement of Student Rights & Code of Student Conduct.
2. Individuals may seek redress from the Board only after all reasonable efforts have been made to settle the disagreement within the unit. Such an individual may then write to the Vice Chancellor for Academic Affairs, stating the grounds of the complaint, the name(s) of those most immediately involved, and a summary of the relevant information.
3. The Board is empowered to determine which complaints it will review. If a hearing is to occur, all parties shall receive written notice, ordinarily within thirty (30) days after the Vice Chancellor for Academic Affairs has received the written complaint. If, for any reason, a hearing is not to take place, the Board will inform the parties in writing and the reasons for its decision.
4. The Board will consist of the Council of Deans (minus the dean in whose academic unit the case is being contested), plus the Vice Chancellor for Enrollment Management and Student Life, the Registrar, the Academic Affairs “Proceedings Advisor”, and one student representative named by the Student Government Council.
5. The Provost and Vice Chancellor for Academic Affairs will chair the Board, without a vote, except to break a tie. All other members of the Board are regular voting members.
6. Five regular voting members will constitute a quorum to hear appeals. There are no alternates for the eight regular voting members. The term of office is one full academic year for all members.
7. Each side may call upon the assistance of an adviser.
8. An audiotape record of the proceedings will be available to both sides.
9. Since it is the function of the Board to conduct hearings and not court trials, the Chair shall set reasonable limits upon the length of the presentations. The usual format will allow the opposing sides to make opening statements, present evidence, and make closing statements.
10. Within ten days after the hearing, all parties will receive written notice of decisions rendered by the Board. The Board's action represents the final decision in the UM-Dearborn academic appeal process.

Additional Program Recognition

DOUBLE MAJORS OR CONCENTRATIONS

With approval from the appropriate school/college, students who meet the requirements in two majors or areas of concentration may graduate with a double major or concentration. The Registrar will seek confirmation from the appropriate academic units before making such an entry on the transcript.
RECOGNITION OF MINOR
A student in a CASL, COB, or CECS degree program may apply for recognition of a minor, which consists of at least 12 hours in courses numbered 300 or above in a particular area of study. Minors are recorded on students' transcripts at the time the petition is granted.

SECOND BACHELOR'S DEGREES
A student who has already earned a bachelor's degree from UM-Dearborn or any other accredited collegiate institution may apply for permission to pursue a second bachelor's degree. If accepted, up to 90 credit hours from a previous University of Michigan degree will be counted toward the second degree. If the first degree was earned at a non-University of Michigan institution, up to 75 credit hours may count toward the second degree. If the student previously attended UM-Dearborn, the GPA for the second bachelor’s degree will be based on the cumulative academic record of courses taken at UM-Dearborn for both degrees.

ADDITIVE CREDIT

UM-Dearborn Courses
Some courses have an additive credit designation. The course credit hours for additive credit courses do not count toward a student’s degree. Several courses in UM-Dearborn curricula and some co-operative education/internships are reflected on a student's transcript but do not fulfill requirements for graduation. Mathematics 080, 090 and Composition 099, for example, bridge the gap between high school and college and are therefore offered only for additive credit. Courses taken for additive credit count in the determination of enrollment certification but not toward a degree or in determining class level.

Additive credits are not eligible for financial aid and will not be used to establish enrollment status for financial aid.

With the exception of remedial courses (MATH 080, 090; COMP 009; CHEM 090), the Department of Veteran Affairs will not pay for courses offered as additive credit.

Additive Courses Taken Elsewhere
Such courses as described above in the paragraph on UM-Dearborn additive credit courses are not transferable from other institutions to UM-Dearborn.

Alcohol at Campus Events
(Email on Serving)

Consumption of beverages containing alcohol is prohibited on the UM-Dearborn campus except under the conditions specified in this policy.

Alcoholic beverages may not be served at events in the Fieldhouse. Alcohol may be served at events held in other facilities on the UM-Dearborn campus under the conditions described below.

Any event at which alcoholic beverages will be served must have a designated server at all times. The designated server may not consume alcohol at the event. Alcoholic beverages may not be carried out of the designated event location.

Serving alcoholic beverages to individuals less than 21 years of age is illegal and expressly prohibited. Events at which the majority of participants will be under age should not include alcoholic beverage.

Under no circumstances may University General Fund accounts, including organization accounts funded with student activity fees, be used to purchase alcoholic beverages.

Any event at which alcohol will be served must be planned in such a way as to respect the preferences of individuals who choose not to drink for religious, personal, or health reasons; and in no case should an event be planned around or advertised to feature the consumption of alcohol. Substantial food and beverages that do not contain alcohol must always be served at an event that includes alcoholic beverages.

Written authorization to serve alcohol at a campus event must be obtained from the University Center Office at least one week before the planned event. Authorization will specify type of event, participants, location, time, and the responsible host.

Alcohol and Drug Prevention Program and Policy

This policy is intended to educate members of the University community about the health risks associated with the use and abuse of alcohol and other drugs and about the resources available for counseling and therapy. In addition, in order to assure a work and learning environment that promotes the University's mission and proper function, the University prohibits unlawful possession, use, or distribution of alcohol or illicit drugs by faculty, staff, or students on University property or as a part of any University activity. Federal and state sanctions also apply to such conduct.

HEALTH RISKS

The use or abuse of alcohol and other drugs increases the risk for a number of health-related and other medical, behavioral, and social problems. These include acute health problems related to intoxication or overdose (blackouts, convulsions, coma, death); physical and psychological dependence; malnutrition; long-term health problems including cirrhosis of the liver, organic brain damage, high blood pressure, heart diseases, ulcers, and cancer of the liver, mouth, throat, stomach; contracting diseases, such as AIDS; through the sharing of hypodermic needles; pregnancy problems including miscarriages, stillbirths, and learning disabilities; fetal alcohol syndrome (physical and mental birth defects); psychological or psychiatric problems; diminish behavior (hangovers, hallucinations, disorientation, slurred speech); unusual or inappropriate risk-taking that may result in physical or emotional injury or death; violent behavior toward others, such as assaults and rape; accidents caused by operating machinery while impaired; impaired driving resulting in alcohol and drug-related arrests, traffic accidents, injuries, and fatalities; negative effects on academic or work performance; conflicts with co-workers, classmates, families, friends, and others; and conduct problems resulting in disciplinary actions, including loss of employment; and legal problems, including imprisonment.
COUNSELING AND TREATMENT PROGRAMS

The University of Michigan encourages individuals with alcohol- or drug-related problems to seek assistance by contacting Counseling and Support Services, 2157 UC, (313) 593-5430. This office can also provide additional information on local, state, and national resources for those seeking assistance.

UNIVERSITY SANCTIONS

Unlawful possession, use, or distribution of alcohol or illicit drugs by faculty, staff, or students on University property or as a part of any University activity may lead to sanctions within the University, the severity of which shall increase as the seriousness of the violation increases.

Sanctions include:
- Verbal or written reprimand;
- Completion of an appropriate rehabilitation program;
- A disciplinary warning, with notice that repetition of the offense or continuation of the offense may result in a more serious sanction;
- Suspension from the University (student) or from employment (employee) from a specified University activity or facility for a fixed period of time or until completion of specified conditions, such as completion of an appropriate rehabilitation program;
- Expulsion from the University (student) or termination of employment (faculty or staff); and/or
- Other appropriate sanctions.

Sanctions for violations by faculty and staff shall be imposed pursuant to existing procedures applicable to acts of misconduct (e.g., Regental Bylaw 5.09, Standard Practice Guide 201.12, and appropriate collective bargaining agreements). Sanctions for violations by students shall be imposed pursuant to the UM-Dearborn Student Code of Non-Academic Conduct or pursuant to other approved procedures. Copies of the applicable student procedures are available at the Office of Enrollment Management and Student Life, 1060 Administration Building.

EXTERNAL SANCTIONS

Unlawful possession and use or distribution of alcohol or illicit drugs may lead to referral to the appropriate local, state, and/or federal authorities for prosecution for a misdemeanor or a felony, depending on the nature of the offense. The sanctions for such offenses may include fines and/or imprisonment.

For example, under federal laws, trafficking drugs such as heroin or cocaine may result in sanctions up to and including life imprisonment for a first offense involving 100 grams or more. Fines for such an offense can reach $4 million. Offenses involving lesser amounts, 10 grams, may result in sanctions up to and including 20 years of imprisonment and/or fines of up to $2 million. A first offense for trafficking marijuana may lead to sanctions up to life imprisonment for offenses involving 1,000 kilograms or more or up to five years of imprisonment for an offense involving less than 50 kilograms. Such an offense carries with it fines that can reach $4 million for an individual offender.

Federal and state sanctions for illegal possession of controlled substances range from up to one year of imprisonment and up to $100,000 in fines to three years of imprisonment and $250,000 in fines for repeat offenders. Under Michigan laws, use of marijuana is a misdemeanor punishable by up to 90 days in jail and a $100 fine. Delivery of marijuana is a felony punishable by up to four years of imprisonment and up to $2,000 in fines. Violations may also lead to forfeiture of personal and real property and denial of federal benefits, such as grants, contracts and student loans.

The State of Michigan may impose a wide range of sanctions for alcohol-related offenses. For example, a first drunk-driving offense may be punishable by up to 90 days in jail, a fine of not less than $100 nor more than $500, a suspended license for not less than six months nor more than two years, and attendance at a substance abuse program. Subsequent offenses can lead to significantly increased sanctions. The vehicle of a minor transporting alcohol may be impounded for up to 30 days. Furnishing or using fraudulent identification to obtain alcohol may be punishable by up to 90 days in jail and a $100 fine.

More detailed descriptions of sanctions related to these and other drug and alcohol offenses are available in the libraries; at the personnel centers and offices; at the Office of the Vice President for Student Services, Room 3000, Michigan Union, Ann Arbor; at the Office of Student Affairs, 1060 Administration Building, Dearborn; and at the Office of the Dean for Student Services, 375 University Center, Flint.

On September 1, 1995, the Michigan Legislature expanded the law concerning minors and alcohol possession, consumption, and purchase. A minor is anyone under the age of 21. The minor may be required to submit to a preliminary chemical breath test and may be subject to suspension of his/her driver’s license even if he/she was not in an automobile at the time of the arrest. In addition, it is now a misdemeanor, not a civil infraction, for a minor to attempt to possess, consume, or purchase alcohol. If the underage person is less than 18 years of age, the agency charging him/her must notify the parents or guardian within 48 hours.

EMPLOYEE REPORTING REQUIREMENT

Under the Drug-Free Workplace Act of 1988, in addition to the other requirement of this policy, a faculty or staff member who works in any capacity under a federal grant or contract must notify his or her University supervisor or department head, in writing, of his or her conviction for a violation of any criminal drug statute occurring in the workplace no later than five calendar days after such conviction. This applies to direct charge employees and to the indirect charge employees who perform any support of overhead functions related to the grant. The supervisor or department head must then promptly report the violation to the General Counsel’s Office.

DISTRIBUTION OF POLICY

A copy of this policy statement shall be distributed annually to all faculty, staff and students.

REVIEW OF UNIVERSITY PROGRAM AND POLICY

Biennially, the University shall review its "Alcohol and Drugs Prevention Program Policy on Alcohol and Drugs" to determine the program’s and policy’s effectiveness and implement changes, if needed, and to ensure that the University’s disciplinary sanctions are consistently enforced.

Code of Conduct for Student Loans

Although the University of Michigan-Dearborn’s existing conflict of interest policies would already preclude the conduct prohibited by 34 C.F.R. § 668.14(b)(27),1 for clarity, the University of Michigan-Dearborn hereby establishes, as an addendum to the University of Michigan-Dearborn’s Conflict of Interest and Conflicts of Commitment Staff Implementation Guidelines and the Policy on Faculty Conflicts of Interest and Conflicts of Commitment, this code of conduct in regards to private student loans2.
The responsibility for the administration of this code of conduct and its enforcement resides with the UM-Dearborn Provost and UM-Dearborn Vice Chancellor for Enrollment Management and Student Life of the University of Michigan-Dearborn.

This code of conduct is applicable to all officers, employees and agents of the University of Michigan-Dearborn and any affiliated organizations with responsibilities (directly or indirectly) with respect to private student loans. UM-Dearborn officers, employees and agents subject to this policy are prohibited from doing any of the following, either on their own behalf or on behalf of the University:

• Participating in a revenue-sharing arrangement with any lender by which the lender pays a fee or provides other material benefits to UM-Dearborn or any officer, employee or agent subject to this policy in exchange for the UM-Dearborn’s recommendation of that lender or its loan products;

• Soliciting or accepting gifts, including reimbursement of expenses or payment of expenses in a manner inconsistent with the requirements set forth in UM-Dearborn’s COI/COC Policies as requiring possible conflicts disclosure, from any lender, guarantor, or servicer that provides private education loans to students, unless the item or payment in question meets the exceptions set forth in 34 C.F.R. § 601.21(c)(2)(iii);

• Accepting from any lender or affiliate any fee, payment, or other financial benefit as compensation for any consulting arrangement or other services contract with or on behalf of a lender of private education loans, except that UM-Dearborn officers, employees, or agents subject to this policy who do not work in the Office of Financial Aid may serve on a lender’s board of directors, provided that they recuse themselves from any board decisions relating to private education loans at UM-Dearborn;

• Directing borrowers to particular lenders or delaying loan certifications;

• Requesting or accepting from any lender any offer of funds to be used for private education loans in exchange for UM-Dearborn’s providing the lender with a specified number of, loan volume of, or preferred lender arrangement for, private education loans

• Requesting or accepting any lender’s assistance with call center or Office of Financial Aid staffing, except that UM-Dearborn may request or accept from any lender (a) professional development training for financial aid administrators, educational counseling or other materials to provide to UM-Dearborn’s student borrowers (provided that such materials indicate the lender’s involvement in preparing or providing them), or (b) short-term, nonrecurring staffing assistance with financial aid-related functions during emergencies; and

• Receiving anything of value from any lender, other than reimbursement for reasonable expenses, in exchange for service on an advisory board, commission, or group established by a lender, guarantor, or group of lenders or guarantors.

Any employee who is offered any gift or monetary compensation from a lender should contact the Office of Financial Aid for clarification and guidance before responding favorably to that offer.

Should an employee subject to this policy inadvertently accept a gift or other type of monetary compensation from a lender, that employee must immediately notify the Department’s Director or Dean. The amount received, the name of the employee or agent, a brief description of the activity and the dates of the activity for which the expenses were paid or provided must be reported to the Department’s Director or Dean, who must then share that report with the UM-Dearborn Director of Financial Aid. The Director of Financial Aid is responsible for reporting this information annually to the Secretary of the Department of Education.

The UM-Dearborn Director of Financial Aid is responsible for providing annual notification of these requirements to all employees and agents with responsibilities (directly or indirectly) for administration of private education loans. This notification will be done via email in January of each year. In addition, this code of conduct will be published on the websites of UM-Dearborn’s Office of Financial Aid, Human Resources, Enrollment Management and Student Life, and the Provost’s Office.

1. This regulation requires all institutions that participate in the federal Title IV student loan programs to adopt a code of conduct that meets the requirements of 34 C.F.R. § 601.21.

2. Because the University of Michigan-Dearborn does not participate in the FFEL Program, the regulation cited applies to the University only as its terms relate to private education loans.

Completed and Approved 7/1/10

Coursework at Other Institutions

After the first enrollment at UM-Dearborn, it is assumed that students will sever their college-related connections with all other colleges and universities.

UM-Dearborn schools and colleges may refuse to accept any and all courses (credits and grades) if they are taken at another institution without prior written approval of the student's unit.

For information, contact your unit records office.

Dual Degrees

Students may apply for two or more degrees either within the same college or in different colleges. To earn both degrees, students must meet the degree requirements for each degree. Generally, distribution courses taken within the College of Arts, Sciences, and Letters may be used to satisfy both degrees. Students should expect to elect at least 30 more credits to earn both degrees. Students are advised to contact each program to learn the specific requirements that must be met.

Some degrees, such as the degrees in Engineering Mathematics or Computer and Information Science (CIS) Mathematics, are only available as concurrent degrees and must be paired with a primary degree in either engineering or CIS. There are special concurrent degree programs in which a student can earn both a BSE in Electrical Engineering and Computer Engineering or in both Industrial and Systems Engineering and Manufacturing Engineering. Students interested in dual degrees should see their advisor.
Electronic Communication (E-Mail) With Students

The UM-Dearborn uses your assigned UM-Dearborn email address for all university email communications. You are responsible for accessing your UM-Dearborn email account on a frequent and consistent basis to stay informed of important University business such as information regarding your student account, financial aid, registration, grades or correspondence from faculty.

You may choose to forward messages from your UM-Dearborn email account to an alternate personal address. However, doing so may place you at risk of not receiving critical University communications. For additional information on your UM-Dearborn email account (including how to forward your UM-Dearborn email address), go to its.umd.umich.edu/ and select Accounts.

This policy reflects UM-Dearborn’s commitment to using available technology to communicate among members of the campus community. It recognizes an expanding reliance on electronic communication among students, faculty, staff, and administration due to the convenience, speed, cost-effectiveness and environmental advantages it provides. This policy will define the proper use of electronic communications between University staff, faculty and students. Electronic communications may include, but are not limited to, electronic mail, electronic bulletin boards, and web sites.

UM-Dearborn authorizes the use of email for official communication between students, faculty, staff, and the administration. All members of the campus community are expected to comply with established guidelines and procedures that define the proper use of electronic communications.

To implement this policy, the following actions and services will be provided:

1. **Provision of University email**
   UM-Dearborn will provide all staff, faculty, and students with an official University email address. This will be the address listed in University directories. All official University email communications will be directed to this address.

2. **Appropriate use of University email**
   Certain University electronic communications may be time-critical. Students, staff, and faculty are responsible for checking their official email address on a frequent and consistent basis in order to stay current with University communications.

   In general, email is not appropriate for transmitting sensitive or confidential information unless an appropriate level of security matches its use for such purposes.

   Confidentiality regarding student records is protected under the Family Educational Rights and Privacy Act of 1974 (FERPA). All use of email, including use for sensitive or confidential information, must be consistent with FERPA.

   Email shall not be the sole method for notification of any legal action.

3. **Redirecting of University email**
   Members of the campus community may elect to forward University email to an alternate address (e.g., aol.com, hotmail.com, comcast.net). They are responsible for ensuring that the configuration of their email service does not accidentally label University messages as spam. Users who redirect email from their official address to another email address do so at their own risk. The University will not be responsible for the handling of email by outside vendors or by departmental servers. **Having email redirected to an alternate service does not absolve students, staff or faculty members from the responsibilities associated with communication sent to their official email address.**

4. **Access to University email**
   Students who are not in possession of a home computer, or do not have access to a computer at work, can use computers available in campus labs or in their local library.

5. **Faculty use of University email**
   Faculty may determine how email will be used in their classes. It is highly recommended that if faculty have email requirements and expectations, they specify these requirements in their course syllabus. Faculty may reasonably expect that students are accessing their University email, and may use email for their courses accordingly.

**Honors**

**ACADEMIC HONORS**

**WILLIAM J. BRANSTROM (FRESHMAN) PRIZE**

First-term freshmen who rank in the upper five percent of their class and earn 14 credit hours and at least a 3.50 GPA on any campus and in any unit of the University of Michigan are named recipients of the William J. Branstrom Prize. This distinction is noted on the student's transcript as “William J. Branstrom Prize.”

**JAMES B. ANGELL SCHOLARS**

Students who earn straight A’s (A+, A, A-), 12 of which must be graded A-E. This distinction is noted on the student’s transcript as “University Honors” after fall and winter terms only.

**HONOR SCHOLARS RECOGNITION**

Students who have achieved superior academic performance are invited to and individually recognized at an Honor Scholars Awards Dinner held in late March each year. Those honored include active undergraduate and graduate students, one per degree major, with a specific minimum GPA, a specific minimum number of credit hours, and other criteria deemed appropriate by the School, College, or Department. For further information, contact the Office of the Provost, 1080 Administration Building; telephone (313) 593-5030.

**GRADUATION HONORS**

**CHANCELLOR’S MEDALLION**

The Chancellor's Medallion is awarded at each Commencement Exercise to UM-Dearborn graduates. The students are selected based on his/her quality of character, vitality, intellect, integrity and academic record. The December awardees are selected from August degree recipients and December degree candidates. The April/May awardees are selected from April/May degree candidates.
WITH DISTINCTION
Students who graduate and have obtained a cumulative GPA of at least 3.2 but less than 3.6 are recommended for graduation “With Distinction”. Such distinctions are noted on transcripts and diplomas.

WITH HIGH DISTINCTION
Students who graduate and have obtained a cumulative GPA of at least 3.6 are recommended for graduation “With High Distinction”. Such distinctions are noted on transcripts and diplomas.

Institutional Equity
The University of Michigan, as an Equal Opportunity/Affirmative Action employer, complies with applicable federal and state laws regarding nondiscrimination and affirmative action, including Title IX of the Education Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973. The University of Michigan is committed to a policy of nondiscrimination and equal opportunity for all persons regardless of race, sex, color, religion, creed, national origin or ancestry, age, marital status, sexual orientation, gender identity, gender expression, disability, or veteran status in employment, educational programs and activities, and admissions. Inquiries or complaints may be directed to the Senior Director for Institutional Equity and Title IX/Section 504 Coordinator, Office of Institutional Equity, 2072 Administrative Services Building, Ann Arbor, Michigan 48109-1432, (734) 763-0235; TTY (734) 647-1388. University of Michigan-Dearborn inquiries may be addressed to the Dearborn Institutional Equity Officer, Office of Institutional Equity, 1020 Administration Building, Dearborn, Michigan 48128-2406, (313) 593-5320 or 593 -5190, TTY (313) 593-5430, fax (313) 593-3568.

The Office of Institutional Equity aims to ensure that all groups, including racial, ethnic and religious minorities, women, the disabled, senior citizens, gays, lesbians, transgender individuals and veterans all have equal opportunity and receive the support they need to be effective and successful as students, faculty or staff members. The office oversees the University’s compliance with affirmative action/ nondiscrimination legislation, and University policies and procedures. The office is available to provide information and pre-grievance counseling to faculty, staff, and students with discrimination or harassment complaints and co-sponsors training and educational programs.

The University of Michigan believes that educational and employment decisions should be based on individuals' abilities and qualifications and should not be based on irrelevant factors or personal characteristics that have no connection with academic abilities or job performance. It strives to build a diverse community in which opportunity is equal for all persons regardless of race, sex, color, religion, creed, national origin or ancestry, age, marital status, disability, individual’s sexual orientation, gender identity, gender expression or veteran status. Such a policy ensures that only relevant factors are considered and that equitable and consistent standards of conduct and performance are applied. The University exerts its leadership for the achievement of this goal by all parties with which the University transacts business, which it recognizes, or with which students or employees of the University are involved.

Any University of Michigan - Dearborn employee having a complaint of discrimination should notify the Institutional Equity Officer, 1020 Administration Building, (313) 593-5320, TTY (313) 593-5430, fax (313) 593-3568. A student should notify either the Institutional Equity Officer or the Ombudsman in 2106 University Center, (313) 583-6445.

Posting and Handbill Distribution
The posting of any information or advertisement and distribution of handbills (fliers) is governed not only by the policy below, but also by all other applicable University Policies and Procedures:

1. The Posting Approval Log must be completed and signed by a representative of the organization or person responsible for the posted material.
2. All posted literature must be approved and officially stamped with a removal date at the lower left- or right-hand corner by a staff member of the Student Activities Office (SAO). Approved literature may be posted for a maximum of thirty days. Extensions to the thirty-day maximum posting period may be granted by the SAO in extenuating circumstances.
3. The indiscriminate distribution (littering) of handbills on the UM-Dearborn campus is strictly prohibited. Offending parties may have their personal and/or organizational rights to distribute handbills on campus revoked and/or may be rebilled for inordinate custodial or plant maintenance cost.
4. Material must be posted on designated Campus News & Activities bulletin boards, tack stripping, and kiosk structures only. Posting on University walls, windows, doors, lighting poles, floors, telephones, restroom facilities, sidewalks, roadways, parking lots, plants, or any vehicle on University property is strictly forbidden.
5. Chalking of University property is prohibited.
6. Fliers or posters partially or fully covering pre-approved material or Campus News & Activities signs will be removed.
7. Standard staples, thumbtacks, and pushpins are the only acceptable methods of affixing posted materials to bulletin boards.
8. Individuals and organizations are limited to posting one (1) flier not to exceed 8-1/2 x 14 inches, or one (1) sign not to exceed 18 x 24 inches per designated bulletin board, except where specified. Individuals or organizations may post four (4) fliers or two (2) signs of the above-noted dimensions on the tack stripping in the University Mall. Fliers or posters with different formats or graphics which essentially provide the same basic advertisement information are considered the same and subject to the above noted one per bulletin board provision.
9. Campus News & Activities bulletin boards may not be covered, amended or cleared without the express permission of SAO.
10. One (1) 3 x 6 foot banner, with official approval, may be posted on the balconies in the CASL atrium for a period not to exceed twenty-one (21) days and must be appropriately hung as not to result in an obstruction or fire hazard.
   a. Banners used for commercial business gain or commercial advertisement are prohibited from posting.
   b. Banners advertising events of an ongoing nature or events not primarily sponsored by a recognized entity from within the UM-Dearborn community are prohibited from posting.
   c. The posting representative assumes responsibility for posting banners properly and removing all banners on the date stamped.
11. The content of the posters and signs is the direct responsibility of the posting individual and/or organization. Persons posting information written in a non-English language must provide...
an exact English translation for SAO records.

12. SAO retains the right to refuse the approval of material that is not in keeping with University policy and procedure.

13. Failure to adhere to the Posting and Handbill Distribution Policy may result in disciplinary action under applicable University of Michigan-Dearborn policies and procedures and/or applicable civil statutes.

Advisory: The Rock Painting Policy, as codified in The Student Clubs and Organizations Information and Policy Manual governs painting on the rock outside the northwest entrance to the University Center.

Privacy and Access to Information

In collecting, utilizing, and releasing information about individuals associated with the University, the University will strive to protect individual privacy, to use information only for the purpose for which it was collected, and to inform individuals of the personal information about them that is being collected, used, or released. The University will not release sensitive information without the consent of the individual involved unless required to do so.

Repeat Course Policy

GUIDELINES

When a prior grade or mark other than “W” is recorded for a course, or its equivalent, or its cross listing, a subsequent enrollment (“repeat”) of the course, or its equivalent, or its cross-listing, will result in an adjustment of the grade point average and credits earned.

1. Students may repeat a course up to two times (total of three attempts).

2. Regardless of whether it is higher or lower than the previous grade(s), the last grade assigned in a course will be used in computing the student’s cumulative grade point average and credits earned toward degree.

3. If a student takes a course three times (the maximum allowed), the previous two grades will not be reflected in the GPA.

4. Most courses can be elected only once for credit. The maximum number of credits/elections allowed in courses designed for multiple enrollments are indicated in the Undergraduate Catalog. For information regarding these courses, students may contact their unit Academic Advisor.

This policy applies to all undergraduate degree and non-degree students in all academic units. An exception not to accept the final grade in a repeated course cannot be petitioned.

The policy applies only to courses elected Fall 2005 or later.

Students who have repeated a course two or more times prior to Fall 2005 may repeat the course only one additional time. Only the two most recent previous grades will be affected by the new policy. Other previous grades will continue to be used in computing the grade point average.

Courses taken at institutions other than the University of Michigan-Dearborn do not affect the grade point average.

The use of an Audit Grade Mode or Pass/Fail Grade Mode may not be used to adjust grade point averages for courses previously elected under any other existing grade mode.

For students who earned an undergraduate degree at UM-Dearborn and are now in the process of earning a second undergraduate degree at UM-Dearborn, the following rule will apply: If repeating a course in the second degree that was failed (with a grade of E) in the first degree, both course will be included in the GPA calculation and the course earned hours (assuming the course was passed) will be included in the earned hours of the second degree.

The limitation of the three-course rule will be monitored by the Office of Registration & Records. Students who elect a course more than three times will be dropped from the course and notified of the election change.

Rights and Obligations of Speakers, Audience Members and Protestors at Public Presentations of UM-Dearborn

1. Members of the UM-Dearborn community and their invited guests have the right to set forth their views and opinions and to listen, watch, protest, or otherwise participate in communication.

2. UM-Dearborn has an obligation to insure audience access to public events, to protect the rights of the speaker and those who wish to hear and communicate with the speaker, and to provide all with personal security.

3. Protestors have an obligation not to abuse their rights of free expression by harassing or intimidating speakers in ways that unduly interfere with free expression or communication between a speaker and members of the audience.

4. The prohibition against undue interference does not include suppression of the usual range of human reactions commonly displayed by an audience during heated discussion of controversial topics, so long as such activities are consistent with the continuation of the speech and the communication of its content to the audience.

5. The broadest range of speech and expression will be tolerated in public forums in order to facilitate the discussion and debate of ideas and issues. However, the intentional use of racial, ethnocentric or sexual invectives, epithets, slurs or utterances directly to attack or injure another individual rather than express or discuss an idea of philosophy are beyond the boundaries of protected speech. Additionally, malicious and intentional verbal threats of violence directed towards an individual, physical violence and destruction of property are misconduct and will be subject to discipline.

6. UM-Dearborn officials have a responsibility to make a judgment when there is a clear and present danger that the rights of free expression and communication will be infringed upon and to take appropriate measure to safeguard these rights.

7. The overall goal of UM-Dearborn officials during a disruption shall be to re-establish an atmosphere conducive to communication between the speaker and the audience in full respect of the rights of all parties.

8. Canceling, stopping an event, adjourning to another time or place, or allowing protracted interruption of a speech or meeting is inconsistent with full respect for the rights of free expression and communication of those present.
Sexual Harassment by Faculty and Staff

POLICY STATEMENT

It is the policy of the University of Michigan to maintain an academic and work environment free of sexual harassment for students, faculty, and staff. Sexual harassment is contrary to the standards of the University community. It diminishes individual dignity and impedes equal employment and educational opportunities and equal access to freedom of academic inquiry. Sexual harassment is a barrier to fulfilling the University's scholarly, research, educational, and service missions. It will not be tolerated at the University of Michigan.

Sexual harassment violates the University's long-standing policy against discrimination on the basis of sex. Sexual harassment is also illegal. It is prohibited in the employment context by Title VII of the 1964 Civil Rights Act, in the education context by Title IX of the Educational Amendments of 1972 and, in both employment and education contexts, by Michigan's Elliot-Larsen Civil Rights Act, adopted in 1976.

A claim under this policy may be brought by the University or by a faculty, staff, or student member of the University community based on the conduct of any University employee. Complaints based on conduct by students who are not also employees of the University are addressed in the Interim Policy on Discrimination and Discriminatory Conduct by Students in the University Environment, which is administered by the Office of Student Services.

Sexual harassment can be a very serious matter having far-reaching effects on the lives and careers of individuals. Intentionally false accusations can have similar impact. Thus the charge of sexual harassment is not to be taken lightly by a charging party, an accused party, or any member of the University community. A person who knowingly and intentionally files a false complaint under this policy is subject to University discipline.

DEFINITION OF SEXUAL HARASSMENT

For the purposes of determining whether a particular act or course of conduct constitutes sexual harassment under this policy, the following definition will be used:

Sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, education, living environment, or participation in a University activity;

2. submission to or rejection of such conduct by an individual is used as the basis for or a factor in decisions affecting that individual's employment, education, living environment, or participation in a University activity; or

3. such conduct has the purpose or effect of unreasonably interfering with an individual's employment or educational performance or creating an intimidating, hostile, or offensive environment for that individual's employment, education, living environment, or participation in a University activity.

Conduct alleged to be sexual harassment will be evaluated by considering the totality of the particular circumstances, including the nature, frequency, intensity, location, context, and duration of the questioned behavior. Although repeated incidents generally create a stronger claim of sexual harassment, a serious incident, even if isolated, can be sufficient. For example, a single suggestion that academic, other educational, or employment rewards or reprisals will follow the granting or refusal of sexual favors, will constitute sexual harassment and grounds for action under this policy.

This policy addresses intentional conduct. It also addresses conduct that results in negative effects even though such negative effects were unintended. Sexually related conduct forms the basis of a sexual harassment claim if a reasonable person of the same gender and University status as the complainant would consider it sufficiently severe or pervasive to interfere unreasonably with academic, other educational, or employment performance or participation in a University activity or living environment.

Sexual harassment most often occurs when one person has actual or apparent power or authority over another; however, it may also occur between individuals of equal status or rank within the University. Sexual harassment may occur between males and females and between persons of the same gender.

Although sexual harassment as described and prohibited by this policy includes a wide range of behaviors, it does not include certain discriminatory conduct even though that conduct may be otherwise unlawful, offensive, or prohibited by University policy. For example, unequal pay and denial of access to educational programs based on gender are unlawful sex discrimination not addressed by this policy. Also, not all harassment based on gender or sexual orientation may be addressed by this policy, if such conduct is not sexual in nature or sexually motivated. Some conduct which negatively emphasizes gender, gender differences or sexual orientation may violate this policy, but may also be a violation of another University policy. Harassment that is both racist and sexual in nature would be addressed by this policy and possibly by other University policies as well.

CONSENSUAL RELATIONSHIPS

Romantic and sexual relationships between supervisor and employee or between faculty or other staff and student are not expressly prohibited by University policy. However, even when both parties have consented to the development of such relationships, they can raise serious concerns about the validity of the consent, conflicts of interest, and unfair treatment of others. Similar concerns can be raised by consensual relationships between senior and junior faculty members.

In 1986, the University's Senate Assembly adopted a statement of principle concerning relationships between faculty (including teaching assistants) and students. The University concurs with the Assembly's position that sexual relationships, even mutually consenting ones, are a basic violation of professional ethics and responsibility when the faculty member has any professional responsibility for the student's academic performance or professional future.

The University's nepotism policy precludes individuals from evaluating the work performance of others with whom they have intimate familial or close personal relationships, or from making hiring, salary, or similar financial decisions concerning such persons, without prior written approval. The same principles apply to staff-student or faculty-student relationships in the context of work or academic evaluation. Thus, consensual romantic or sexual relationships between faculty or staff and students also require disclosure to the appropriate administrative supervisor so that arrangements can be made for objective evaluation and decision making with regard to the student.
Romantic or sexual relationships with students that occur outside of the instructional or supervisory context may also lead to difficulties. The Senate Assembly has concluded, and the University concurs, that the asymmetry of the faculty-student relationship means that any sexual relationship between a faculty member and a student is potentially exploitative and should be avoided. Faculty and staff engaged in such relationships should be sensitive to the constant possibility that they may unexpectedly be placed in a position of responsibility for the student's instruction or evaluation.

In the event of a charge of sexual harassment, the University will, in general, be unsympathetic to a defense based upon consent when the facts establish that a professional faculty-student, staff-student, or supervisor-employee power differential existed within the relationship.

**RESPONSE AND PROCEDURES**

**Prevention and Education**

The University is committed to preventing and eliminating sexual harassment of students, faculty, and staff. To that end, this policy will be published in pamphlet form and disseminated to the University community. The pamphlets will be included in orientation material for new students, faculty, and staff and made available in the Affirmative Action Office and other appropriate locations on each campus. In addition, appropriate educational sessions will be conducted by the University on an ongoing basis to (1) inform students, faculty, and staff about identifying sexual harassment and the problems it causes, (2) advise members of the University community about their rights and responsibilities under this policy, and (3) train personnel in the administration of this policy.

**Assistance with Sexual Harassment Problems**

The Affirmative Action Office is responsible for ensuring and monitoring the University's compliance with federal and state nondiscrimination laws. However, a discrimination-free environment is the responsibility of every member of the community. The University can take corrective action only when it becomes aware of problems. Therefore, the University encourages persons who believe that they have experienced or witnessed sexual harassment to come forward promptly with their inquiries, reports, or complaints and seek assistance within the University. Individuals also have the right to pursue a legal remedy for sexual harassment in addition to or instead of proceeding under this policy.

**Confidential Counseling**

Information about or assistance with sexual harassment issues may be obtained from a variety of University resources. Prior to or concurrent with making a report or complaint of sexual harassment, individuals may find it helpful to consult with a counselor. The following offices can advise and support victims of and witnesses to sexual harassment in a confidential setting. Discussions with representatives of these offices will not be considered official reports to the University and will not, without additional action by the complainant, result in intervention or corrective action.

- Counseling Services (available to students on each campus)
- Faculty and Staff Assistance Program (available to faculty and staff on each campus)
- Lesbian-Gay Male Programs Office (in Ann Arbor, but available to students, faculty and staff from Dearborn and Flint)
- Sexual Assault Prevention and Awareness Center (in Ann Arbor, but available to students, faculty and staff from Dearborn and Flint)

**Inquiries About Sexual Harassment**

Inquiries about sexual harassment and this policy may also be made to the University representatives listed below. Such inquiries will not be acted upon until an informal or formal complaint is made.

**Informal Resolution Process**

At the complainant's option, a sexual harassment report or complaint can be made centrally or locally on the Ann Arbor, Dearborn, and Flint campuses. Centrally, informal reports or complaints may be received by representatives of the Affirmative Action Office, Ombuds Services (students only), the Office of Student Services (students only), Dean's Office of the Horace H. Rackham Graduate School (graduate students only), Center for the Education of Women, Department of Public Safety, and appropriate Office of Human Resources.

At the local level, persons designated to receive informal reports or complaints are any dean, director, department head, unit manager, residence hall building director, and/or their designees. Each school/college or other unit shall be certain that at least one of the persons designated to receive complaints is a female.

The person who receives a sexual harassment report or complaint will advise the complainant about the informal and formal resolution alternatives available under this policy. At the complainant's option, the intake person can 1) provide information about sexual harassment and this policy, 2) help the complainant deal directly with the alleged offender, 3) assist with or mediate a resolution of the problem within the unit, and/or 4) help the complainant prepare a written complaint and pursue a formal investigation. Informal resolution measures should be custom-designed to address the particular circumstances. If the complainant wishes, the intake person can, in consultation with a representative of the appropriate Office of Human Resources and/or the Affirmative Action Office, conduct an informal inquiry into the reported incident and assist in resolving it. The person to whom an informal complaint is brought will not inform the accused of the complainant's action or identity without the consent of the complainant.

**Formal Investigation**

Either subsequent to or instead of following an informal process, a complainant may elect to make a formal charge of sexual harassment and have it pursued. The University will investigate all formal charges of sexual harassment.

There are two internal mechanisms available to pursue a formal charge and their availability depends on the employment status of the complainant. All employees represented by a union must pursue a formal charge through the grievance procedure in the relevant collective bargaining agreement. All other employees may pursue a formal charge through the use of the appropriate faculty or staff grievance procedure set forth in the Standard Practice Guide or, in the alternative, through the procedures set forth in this policy.

Formal charges under this Policy's procedures should be made in writing and filed either with a dean or director, the Affirmative Action Office, the appropriate Office of Human Resources, or, on the Dearborn campus, with the Office of the Provost. If a formal investigation is initiated, the person accused of sexual harassment must be notified of the charge and given the opportunity to respond to any allegations before disciplinary actions are taken.

The purpose of an investigation, which will include interviewing the parties and witnesses, is to gather and verify facts about the case. Formal investigations will be conducted in consultation with the Office of the General Counsel, by a three-person team.
Investigations will be conducted promptly, thoroughly, and fairly, affording both the complainant and the accused a full opportunity to participate. Possible outcomes of an investigation are 1) a finding that the allegations are not warranted or could not be substantiated, 2) a negotiated settlement of the complaint, 3) a finding that the allegations are substantiated and, if so, 4) recommendations to the appropriate supervisor regarding corrective action to be taken. If an allegation of sexual harassment is substantiated, appropriate corrective action will follow. The University utilizes a disciplinary system for this and other misconduct in which the extent of the disciplinary action taken depends on all the facts and circumstances available at the time the decision is made. The severity of the punishment will depend on the frequency and severity of the offense. Corrective action could include a requirement not to repeat or continue the harassing conduct, a reprimand, denial of a merit pay increase, reassignment, and suspension. A finding of sexual harassment may be cause for the separation of the offending party from the University, in accordance with University procedures, including, for qualified faculty, the procedures set forth in Regental Bylaw 5.09. Every effort will be made to assure University-wide uniformity of sanctions. The complainant and the person complained against will be notified in writing of the final disposition of a formal complaint. In the event the allegations are not substantiated, all reasonable steps will be taken to restore the reputation of the accused if it was damaged by the proceeding.

University Action

At the request of a complainant or with the consent of one or more complainants who agree to participate as witnesses, the University may, in appropriate circumstances, assume the role of a complainant and pursue a report or complaint of sexual harassment, either informally or formally. The University may respond to complaints or reports by persons external to the University community about conduct of University employees alleged to be sexual harassment.

Appeals Process

Complainants and faculty and staff members against whom corrective action is taken may avail themselves of the relevant grievance procedure as to the appropriateness of the corrective action and the procedures followed. A student complainant who is not satisfied with the outcome of a formal investigation may appeal the outcome to the Provost and Vice President for Academic Affairs (if person complained against is a faculty member or teaching assistant) or relevant Vice President (if person complained against is a staff member). On the Dearborn and Flint campuses, student complainants should utilize the appeals process specific to their own campus.

Reporting Requirements

To assure University-wide compliance with this policy and with federal and state law, the Affirmative Action Office must be advised of all reported incidents of sexual harassment and their resolution. Reports in which the complainant's and/or the accused's names are not revealed should be reported generically. The Affirmative Action Office will use this information to prepare annual statistical reports for the campus community on the incidence of sexual harassment. The Office of the General Counsel will monitor repeated complaints within the same unit or against the same individual, where appropriately identified, to assure that such claims are appropriately handled.

General

In all cases, a person who 1) reports or complains, 2) participates in an inquiry or investigation, or 3) is accused of sexual harassment incidents may be accompanied by an individual of his or her choice who shall be permitted to attend, but not participate in, the proceedings.

The University will take appropriate steps to assure that a person who in good faith reports, complains about, or participates in an informal resolution or formal investigation of a sexual harassment allegation will not be subjected to retaliation. The University also will take appropriate steps to assure that a person against whom such an allegation is made is treated fairly. The University will also undertake appropriate follow-up measures to assure compliance with settlements and the goals of this policy.

Inquiries and complaints of sexual harassment shall be treated with the maximum degree of confidentiality. Only when required by law or when personal safety is at risk will confidential information be acted upon or disclosed to others without a complainant's consent.

Sexual harassment complaints should be made promptly and resolved as quickly as possible, generally within two weeks of the date the complaint is made. Formal investigations should be concluded within thirty (30) days from the date of the complaint. The complainant and the accused should be kept apprised of the progress of the investigation, as well as the ultimate outcome.

The University will make every effort to accommodate parties who are unable to participate in a formal investigation because of physical incapacity or geographical location.

Complaint-Handling Guidelines

The University will issue and make available to persons entrusted with administering this policy and other interested parties, appropriate complaint-handling guidelines, consistent with this policy. All guidelines shall be reviewed and approved by the Office of the Provost and the Office of the General Counsel. These guidelines shall be issued within ninety (90) days of the effective date of this policy.

Revisions

This policy and these procedures are subject to revision as determined necessary or desirable in view of experience or changes in the law.
Special Examinations

The UM-Dearborn will acknowledge proficiencies gained by students outside the bounds of traditional courses if such proficiency is certified by recognized examinations or departmentally prepared and/or approved alternatives. The University recognizes three types of such special examinations: 1) standardized examinations prepared and evaluated by nationally recognized organizations; 2) placement examinations prepared, administered on campus, and evaluated by UM-Dearborn academic departments; and 3) special examinations for individual courses, prepared, administered, and evaluated by specialists in the various academic departments and approved by the respective department chairs.

The number and nature of credits earned by examination must be approved by the department(s) normally responsible for teaching the subject matter areas for which credit is being granted. Decisions in individual cases related to departmental examinations will be made in light of the general departmentally approved policies that are not inconsistent with those for national examinations.

DEPARTMENTAL EXAMINATIONS

If a student believes that he/she has the knowledge and/or skill to merit credit for a specific course without attending classes and/or doing any assignments other than a single, comprehensive examination, the student and the academic unit or department must follow certain procedures.

If credit-by-examination is available in the area in which the student is interested, he/she should request permission to take an examination for specific credit in accordance with the unit's procedures. If the request is granted (it can be denied) and the examination is scheduled, the student will be assessed a $20.00 fee.

All such examinations are graded on a Pass/Fail basis. If the student passes or fails, he/she will receive a written memorandum to that effect from the examiner. If the student passes the examination(s), he/she will be assessed regular University fees per credit hour received minus any fees previously paid.

Also see section on Tuition.

PLACEMENT EXAMINATIONS

Placement examinations are required by certain departments in an effort to determine the best course level for new students. No fee is assessed for the administration of these tests. For more information, telephone the Office of Admissions and Orientation Office at (313) 593-5100 or visit umd.umich.edu/plex/.

STANDARDIZED NATIONAL EXAMINATIONS

The Advanced Placement Program (APP) and International Baccalaureate (IB) subject examinations are the chief examples in this category. If the relevant academic units and/or the academic departments award credit, the student is responsible for having the test results sent to the institution (normally, along with the application for admission), and the Office of Registration & Records (current students) or the Office of Admissions and Orientation (for incoming students) will be responsible for the recording of the appropriate credit. The student is not charged a fee for such credit. For more information about AP or IB credit grant practices, visit casl.umich.edu/index.php?id=687380.

Smoke-Free Policy

Since September 1, 1992, smoking has not been permitted in campus buildings. The success of this policy depends upon the thoughtfulness, consideration, and cooperation of smokers and non-smokers. All faculty, staff, students and visitors share the responsibility for adhering to and enforcing the policy. For the full policy, see the Dearborn Administrative Guide, umd.umich.edu/dag/.

In our ongoing effort to create an environment that is healthy for all members of our community, on July 1, 2011 the University of Michigan-Dearborn became a smoke-free university. This created a healthier environment for faculty, staff, students and visitors. For more information, visit umd.umich.edu/smokefree/.

Student Organizations

POLICIES FOR STUDENT ORGANIZATIONS

In an effort to coordinate the activities of all student organizations, policies were codified into a formal publication issued by Student Government, known as the Student Clubs and Organizations Information and Policies Manual.

The Student Clubs and Organizations Information and Policies Manual is a most useful booklet which contains information on forming an organization, the renewing and revoking of organizational status, office allocations, organizational accounting, the allotting of day sales and evening events, university services, descriptions of recognized organizations, etc.

The Student Organizations Coordinator and the Student Government Director of Student Organizations can assist any student group interested in this area of concern.

ACCOUNTING POLICIES AND PROCEDURES

The Student Activities Office (SAO) maintains and services the financial accounts for student organizations that have been recognized by the Student Government. Through this student service, SAO:

1. Ensures uniformity of accounting records.
2. Facilitates continuity between business officers and their successors.
3. Aids student organizations in keeping their activities on a sound financial basis.
4. Provides a means for recognized student organizations to use University facilities and services.

The SAO is prepared to offer staff consultation on matters of budgeting, detailed record keeping, and securing various University and outside vendor services and facilities. The information presented in the Student Organizations Accounting Policies and Procedures Manual is intended to assist the financial officers of organizations in conducting their duties and to inform them of the policies, procedures, and benefits associated with sound fiscal policy.
Special Programs

Officer Education Programs

Students at UM-Dearborn may apply for admission to the two-year and four-year programs of Army or Air Force officer training. These programs include some scholarship options and may lead to a commission either in the Army or the Air Force.

These officer training programs are based in Ann Arbor. Interested students may get further information by visiting the Office of Registration & Records in Dearborn (1169 UC) or by telephoning Ann Arbor: for Air Force information, telephone (734) 764-2400; for Army information, telephone (734) 764-2403; for Army information, telephone (734) 764-2400.

ARMY OFFICER EDUCATION PROGRAM (ROTC) (NOT A CONCENTRATION)

Upon graduation from the University and successful completion of the program, students enrolled in the Army Officer Education Program receive a commission as second lieutenant in the United States Army Reserve or in the Regular Army. Many students enroll for the first two years in order to sample career opportunities. No military obligation is incurred for the first two years.

AIR FORCE OFFICER EDUCATION PROGRAM

The program offers studies designed to prepare and commission selected individuals to serve in the United States Air Force. Both a four-year and a two-year program leading to a commission as a second lieutenant are offered. The four-year plan comprises eight terms of courses in aerospace studies plus a four-week field training course at an Air Force base, between the sophomore and junior years. The two-year plan comprises an initial six-week field training course followed by four terms of aerospace studies (AS 310 through AS 411 series). Cadets may enroll in either the four-year or two-year program by permission of the chairman.

Military Obligation

After being commissioned, graduates of the program are called to active duty with the Air Force in a field usually related to their academic degree program. The period of service is four years for non-flying officers, five years for navigators after navigator training, and eight years for pilots after flight training. A contractual obligation is established for non-scholarship students when they attend the first Professional Officer Course (POC). Scholarship students in the four-year program incur a contractual obligation upon entering the sophomore year of AFROTC, whereas those in the two-year program incur one on entering the POC.

UM-DEARBORN CREDIT FOR MILITARY OFFICER EDUCATION

College of Arts, Sciences, and Letters

Up to six credit hours of Military Science / Aerospace Studies / ROTC coursework may count as elective credit toward degree.

College of Business

Up to six semester credit hours will be granted to a student for successful completion of advanced military science courses towards the BBA degree requirements.

College of Engineering and Computer Science

Students who satisfactorily complete the requirements as established by the Military Officer Education Program Chairman for a commission and satisfactorily complete the engineering program of studies may count a maximum of four credit hours of advanced military science courses (300 and 400 level) as meeting program elective hours for an engineering degree at the discretion of the academic department.

College of Education, Health, and Human Services

Courses do not carry credit toward degree requirements.

Campus Services

Athletics and Recreation

Athletics and Recreation offers instruction, participation, and three levels of competition in a variety of sports. Participants can learn new skills or improve current levels of skill. Classes in Zumba, weight training, fitness/conditioning and weight reduction are designed to enhance physical fitness.

Open recreation time is scheduled in the Fieldhouse and Ice Arena for students, faculty and staff. The schedule is posted weekly and information can be obtained by calling the Athletics Department.

UM-Dearborn athletes participate in men's and women's basketball, women's volleyball, and softball and are affiliated with the National Association of Intercollegiate Athletics (NAIA) and the Wolverine-Hoosier Athletics Conference. Admission to games is free with a student ID card.

The recreational sports program provides opportunities to compete in club sports and intramural leagues and to participate in a variety of special events, "pick-up" games, seminars, and other related activities. The club sport program sponsors teams in lacrosse, rugby, soccer, cross-country running, bowling, and ice hockey that compete against other college/university. Intramural competition includes flag football, volleyball, broomball, wallyball, basketball and ice hockey.

The athletics complex is located at the south end of the campus. The gymnasium floor can accommodate eight volleyball or three basketball games. The ice arena has a seating capacity of 1,250 and is the home for the club and intramural teams, recreational skating, drop-in hockey and physical education classes.

Other facilities in the Fieldhouse/Arena include a Wellness Center equipped with free weights, numerous weight-training stations, stationary bicycles, rowing machines, treadmills, and a dance studio. The building also houses a conference room, administrative offices, concession stand and locker rooms. Hours of operation, schedule of activities, team tryouts and other information can be obtained by calling (313) 593-3534, going to the Fieldhouse/Ice Arena, or on the web at www.gowolves.net.

Internships or other student work experiences are available in sports information, exercise leadership, athletic training, coaching, officiating, marketing, communication, team manager/statistician and administration.

Football Ticket Distribution Policy

Season tickets to the University of Michigan-Ann Arbor football games are sold by the Ticket Office of the Ann Arbor campus Department of Athletics. UM-Dearborn students are handled by the Ticket Office on the Ann Arbor campus.
A student ticket information flyer outlining procedures to purchase tickets is mailed in March to students enrolled during Winter term. The deadline for purchase is mid-April. For more information, contact the ticket office at (734) 764-0247.

**Bookstore**

Located in the University Center, the Barnes & Noble Bookstore has a complete line of textbooks, trade books, and periodicals. The store also has a complete line of supplies, UM and UM-Dearborn souvenirs and sportswear. American Express, Discover, MasterCard and VISA are accepted. Normal bookstore hours: 8:00 am to 6:30 pm (Monday-Thursday); 8:00 am to 4:00 pm on Friday.

NOTE: Special hours are in effect at the start of each semester and during term breaks and holiday periods.

For additional information, telephone (313) 593-5551 or visit the website at umd.bncollege.com.

**Campus Media Services**

Campus Media Services (CMS) supports instruction and research by providing facilities and expertise in multimedia. These services include studio and remote video production, video streaming, video editing, audio production, Blue Stream conversion, and equipment repair. Most multimedia support for courses is provided without cost to faculty or the academic unit. CMS provides media production facilities and services for student projects. Production services that support course assignments are provided without charge to students. Production support for work that is not related to instruction may be provided for a fee. Costs vary depending on the nature of the production. All service requests should be made 24 hours in advance. Major productions require production proposals. CMS also supports a room with teleconferencing capability. Please call 313-593-5150 for more details.

**Career Services**

Career Services provides a range of services to assist undergraduates, graduate students, graduating seniors, and alumni in their career development and job search. Students are encouraged to schedule a career counseling appointment early in their college experience to create a career plan.

Overall services offered include individualized career counseling, job search events, workshops on career planning and job search topics, job listings, online career resources, an online job club through LinkedIn, Career Planning classes (Exp.102) and employer connections. FOCUS, an online career planning system, is available for self-assessment and career exploration, at no cost.

Annually a Fall Career Fair and a Spring Career Fair are held on campus, linking employers with our students and graduates. Other career fairs or recruiting opportunities, in which UM-Dearborn participates, are also promoted. Campus recruiting programs provide opportunities for graduating students and recent alumni to connect with recruiters. Students and alumni can create on-line resumes and employers recruit by posting job listings, requesting resumes, and through campus interviews. Career counselors are available to provide advice on job search techniques, resumes, and interviewing.

Career Services is a great place for career exploration, professional development and job search. Alumni also utilize the Career Services programs for individual needs and/or as recruiters.

Career Services is located in 2149 UC, telephone (313) 593-5020. URL: www.umd.umich.edu/careerservices.

**Counseling and Support Services**

2157 University Center
Phone: (313) 593-5430
Fax: (313) 593-3263
Email: counseling@umd.umich.edu
Website: umd.umich.edu/support

The mission of Counseling and Disability Services is to resolve barriers to the learning process and serve as a vital link in the UM-Dearborn “safety net.” Counseling and Disability Services advance the academic mission of the University by enhancing personal development, problem solving, and communication. Our office is located at 2157 University Center.

**Personal Counseling**

We provide short-term therapy (up to 12 sessions per academic year) to all registered UM-Dearborn students. UM-Dearborn faculty and staff are also eligible (FASAP). There is no fee for counseling. Counseling is provided by licensed psychologists. Note: We do not prescribe medication. Counseling begins with an assessment of your concerns and leads to a recommendation, which may include individual counseling, couples counseling, group counseling, or referral to a specialist.

**Scheduling an Appointment**

Telephone or stop by the C&D Office at 2157 University Center, (313) 593-5430. The first step in arranging an appointment will be to complete a questionnaire, and then an appointment will be scheduled. Please inform our receptionist if your concern is urgent.

**Confidentiality**

Use of counseling and personal information shared with our counselors is confidential in accordance with Michigan Privileged Communication Statutes. There are limits or exceptions identified in these statutes. No information is released without a client’s written permission and no information is entered into a student’s college record.

**Consultation Services**

Consultation Services include faculty and staff support in assisting students in distress, Faculty and Staff Assistance Program (FASAP), career assessment services, and substance use assessment.

**Career Assessment Services**

This service is for students who are undecided or wanting to change their majors and/or career plans and would like some assistance. After an initial interview, a series of personality and career tests may be used to provide students with feedback on work and career preferences that match their interests, values and personality type.

**Outreach Programs**

These programs emphasize personal development topics. Many are designed to respond to the diversity among students and reach students who are less likely to make use of traditional counseling services. To request a program, contact our office at (313) 593-5430 or email: counseling@umd.umich.edu.
Training/Internship Program

Currently, our training/Internship program (clinical or counseling psychology and community counseling) is only available to graduate students. Please contact our training coordinator, Dr. Sarah Pouliot, for more information.

Disability Services

Disability Services offers aid to differently-abled individuals seeking the opportunity for further learning. Some of the services provided, as deemed appropriate after departmental review, are: 1) early registration; 2) course/classroom accommodations; 3) tutorial referral and mentoring services; 4) assistance while using the Computer Center; 5) note-taking; and 6) referral for auxiliary services such as interpreters for the deaf and the taping of texts for the blind. Staff will train students to use the Adaptive Equipment Lab in the Mardigian Library. Please contact (313) 593-5430 if you have any questions.

Student Health Insurance

A student group health insurance policy is available to any enrolled student. Information and application forms are available at 2157 UC. It is recommended that all students have health insurance coverage. All international students are required to have such coverage. Students applying for financial aid should be aware that the cost of health insurance could be included as a budget expense.

Referral Service

A low-cost referral service can be provided for faculty, staff and students at The Henry Ford Medical Center – Fairlane only, located at 19401 Hubbard Drive, Dearborn, Michigan. You must contact Counseling & Disability Services located in The University Center, Room 2157, or telephone (313) 593-5430 prior to any medical services for authorization.

Housing Service

A Housing Referral Service is located at 2136 UC. Listings are available, in addition to a telephone to call local landlords. For further information, contact the Housing Referral Service, telephone (313) 583-6600.

Food Services

There are a variety of food service retail locations across campus to fill your needs while on campus. Beginning July 2013, Sodexo will be the food service provider for the University. They are also able to provide catering services for meetings and events across campus.

MCKINLEY CAFE

The McKinley Cafe is located on the first floor of the University Center and features a variety of retail food services including Subway, Starbucks, a grill serving food made to order, a pizza/Italian station (pizza, calzones & pasta), a station featuring healthier dining options, and a variety of “grab and go” food choices.

FAIRLANE CENTER SOUTH

Fairlane Center South contains Sandella’s Flatbread Cafe, featuring made-to-order wraps, rice bowls, salads, and paninis. There is also a wide selection of pre-made food options for those on the go.

MARDIGIAN LIBRARY

Mardigian Library is home to a coffee shop serving hot and cold beverages and offering a variety of pre-packaged snacks.

VENDING

Beverage and snack machines are located throughout campus for the convenience to the campus community.

Current information on food services, retail hours, catering services, and vending can be obtained by visiting http://umd.umich.edu/universitycenter/

Information Technology Services

General Purpose Labs: 1140 CW, (313) 593-5073
1070 ML (Campus dialing only: x54992)
Help Desk: (313) 593-HELP (4357) or helpdesk@umd.umich.edu
Internet Address: its.umich.edu

Information Technology Services (ITS) supports the computing needs of faculty, staff and students. The department has responsibility for: 1) the campus network, including Internet access; 2) computer labs in the CW and Library; 3) computer access accounts; 4) email and webmail services; 5) Help Desk support; and 6) the Banner student information system.

FACILITIES

The primary computing support facilities are two general purpose computer labs located in the Computing Wing (CW) of the Science Building and in the Mardigian Library (ML). Together, they contain over 130 64-bit processor computers, running Windows XP. Adjacent to the Library lab is the Adaptive Learning Lab, with comparable equipment. In addition to the standard software products, it runs a voice synthesis package that allows visually impaired students to run standard application programs on the computer. Additional departmental computer labs are also operated by individual schools and colleges across campus.

SOFTWARE

ITS offers a wide variety of software in the labs it supports, including communications, databases, word processing, spreadsheets, and artificial intelligence. Specialized software is also available, including Visual Studio, SPSS, SAS, Minitab, and Mathematica. The lab also provides instructional software required for some classes.

In addition, the University of Michigan has established a licensing agreement with Microsoft that provides students with excellent discounts on some of their products. ITS offers Windows 7, Office 2007, and Visual Studio 2008 for sale in the Computing Wing on Fridays.

COMPUTER ACCOUNTS

The ITS Accounts Office assigns user ID’s and passwords for all university network systems. They process requests for several types of computer access, and assist with questions and problems with these types of computer access logins. These include Uniqnames, Kerberos and Dearborn passwords, lab access, and access to your home directory. The Accounts Office can also provide information on UM-DEARBORN’s Webmail service, which allows you to more directly access and manage your mail from off campus.

ASSISTANCE AND SERVICES

The ITS Help Desk is the primary point of contact for support. Please call or email the Help Desk when you need assistance, service, documentation and information regarding the campus network, software, hardware and services. Many questions can be answered immediately on the phone. An automated ticket system is also used to keep track of each request that is received.
and the service that is provided. Both general purpose computer labs are staffed with student assistants who can provide answers to most questions or refer you to someone who can. Equipment problems and malfunctions in the labs should be immediately reported to the lab Counselor on duty so that the amount of downtime experienced is minimized.

**HOURS**
During the Fall and Winter semesters, the computing labs normally follow the schedule below. Holiday hours and other hour changes are posted on the ITS web site and in the computer labs. CW lab hours are 8:00 am until 9:45 pm, Monday through Thursday; 8:00 am to 5:45 pm on Friday; 12:00 noon until 4:45 pm on Saturday; and 12:00 noon until 8:45 pm on Sunday. ML lab hours are 10:00 am until 10:45 pm, Monday through Thursday; 10:00 am to 5:45 pm on Friday; 12:00 noon until 5:45 pm on Saturday; and 1:00 pm until 9:45 pm on Sunday.

**Institutional Equity Officer**
The Institutional Equity Office (IEO) helps to ensure that the campus promotes equal opportunity for all students, faculty, and staff, including racial, ethnic, and religious minorities, women, the disabled, senior citizens, veterans, and gay, lesbian and transgender individuals. The IEO oversees compliance with Regental by-laws, Presidential policy and legislation regarding nondiscrimination, equal opportunity, and /affirmative action and provides information and pre-grievance counseling to faculty, staff, and students with questions or complaints. The office of the IEO is located in 1020 Administration Building, telephone (313) 593-5190.

**International Affairs**
Office of International Affairs
760 Town Center Drive
Dearborn MI 48126
Telephone: 313-583-6600
Fax: 313-583-6725
Email: international@umd.umich.edu
Web-address: umd.umich.edu/internationaloffice/

**SERVICES**
The Office of International Affairs welcomes and has the commitment to provide support services to international and domestic student, faculty and visiting scholars at the University of Michigan-Dearborn. Our campus community is dedicated to providing quality services addressing the following:

- Processing DS-2019 and /or I-20
- Admission Process
- Students Success Assistance
- Faculty Exchange
- Employment
- Community Engagement
- English Language Program
- Overseas Traveling
- Health Insurance – domestic and international
- Housing Referrals
- Homeland Security Compliance Advising
- Cross-cultural programs and workshops
- Emergency Assistance

Potential students are afforded assistance to ensure a seamless admissions process. Assistance begins once prospective students express an interest in the university and continues throughout their academic tenure. The OIA Provides information to international students scholars about maintaining F-1 and J-1 status. they are encouraged to explore and integrate within the local and metropolitan communities while being challenged with the rigor of the university’s academic process. The students Success Center offers diverse academic, personal and professional support through blended services that are designed to complement and support the educational track.

As we prepare our students to achieve the “Degree That Makes the Difference,” we encourage and support our students to participate in study abroad, global civic engagement projects and international internships. These opportunities help provide practical applications to what our students are learning within their academic programs. UM-Dearborn offers faculty led study abroad opportunities and assistance to students that participate in non-UM-Dearborn programs.

OIA works with the academic units to explore and support faculty exchange opportunities. Currently, the University of Michigan-Dearborn works with colleges and universities in over ten countries where faculty, students and resources are shared and rich friendships are discovered. The University of Michigan-Dearborn welcomes worldwide intellectual dialogue and exchanges that provide our students with a diverse global perspective and that challenges and prepares them for the Twenty-first Century and beyond.

**Mardigian Library**
The Mardigian Library offers a student-centered environment that fosters learning by providing access to authoritative sources of knowledge and information, and by helping students learn critical information literacy skills and concepts. The library provides access (http://library.umd.umich.edu) to a multitude of research resources, including over 20,000 online journals, over 500 online research databases, and thousands of online books. The four-story Mardigian Library houses a 365,000-volume collection and offers space for 1,200 students. Twenty-two public workstations on the main floor provide access to all online resources, most of which are also accessible from off campus.

Two floors are available for silent study and one floor is for group study. Facilities housed in the Mardigian Library include a coffee shop, computer lab, and distance learning classroom on the first floor, the Alfred Berkowitz Gallery, the Voice-Vision Holocaust Survival Oral History Archive, the Archives of the University of Michigan-Dearborn, and the Integrated Learning and Community Partnership Office (ILCPO).

Students may borrow materials from the library’s collection. Items not owned by the library may be requested from other libraries through the Interlibrary Loan Department or from MeLCat, a statewide resource-sharing service of over 400 public and academic libraries. Currently enrolled UM-Dearborn students are eligible to borrow materials directly from most of the libraries in the UM-Ann Arbor University Library system. Additional information regarding this service may be obtained from University Library Circulation Services at the Harlan Hatcher Graduate Library. Call (734) 764-0401.

Librarians at the Mardigian Library are committed to teaching students the skills and concepts that are necessary to develop effective search strategies for research assignments, and to use library and information resources effectively. During the Fall and Winter terms, librarians offer over 80 hours per week of
regular drop-in research assistance. Other research assistance includes by phone, “Ask-A-Question” (e-mail service), Instant Messaging (IM), text messaging, and scheduling one-on-one appointments with librarians for in-depth assistance. Students may also attend scheduled group research education sessions as part of their classes. Occasional open research education workshops are offered as well.

Guides to the use of the library and its resources are available on the library’s website. As of January, 2013 the library is open 95 hours per week during the Fall and Winter terms, with extended hours during final exams and study days. Library hours of operation can be found on the website.

**Ombuds Services**

Ombuds Services provides students of the campus community with individual, informal assistance in resolving concerns and addressing issues regarding students’ rights and responsibilities. Ombuds Services is an impartial resource for obtaining:

- Information about university policies;
- Guidance in following university procedures;
- Assistance in resolving concerns and critical situations;
- Help in cutting red tape and in obtaining appropriate and timely answers and information;
- Opportunities to discuss or question university actions;
- Active support for UM-D’s commitment to ensure that students are treated with fundamental fairness and personal dignity.

Ombuds Services is located in 2106 University Center, telephone (313) 593-5440, e-mail ombuds-office@umd.umich.edu.

**Parking**

Parking of all motor vehicles at UM-Dearborn is by permit only. Parking for students, faculty and staff is allowed in designated permit lots only when vehicles are properly registered and display the appropriate parking decal. Student parking permits are available at the Parking Office and the University Center Information Desk. If you would like a permit mailed to you, apply online at parking@umd.umich.edu. Send your name, address and UMID number and a sticker will be sent to you. Parking for all visitors is provided in the parking structure. For further information, refer to the University of Michigan-Dearborn Parking Manual or call the Parking Office at (313) 593-5480.

**Public Safety**

The Department of Public Safety, located in the Campus Support Services building, provides 24-hour emergency, safety and security services. Services offered include: crime prevention, emergency assistance, health/safety/crime reporting, escort service, patrol of buildings, grounds and parking lots, administration of the lost & found program, and safety programs.

For immediate response to any campus emergency, DIAL 911 from a campus phone or (313) 593-5333 from a cell phone. There are 53 direct-dial emergency phones strategically placed around campus.

For emergency medical assistance, DIAL 911 from a campus phone or (313) 593-5333 from a cell phone. For minor injuries, transportation from campus to the Henry Ford Hospital-Fairlane may be provided.

For additional information telephone (313) 593-9953 (department office), or (313) 593-5333 (dispatch center).

**Student Engagement**

In support of the mission and goals of the University of Michigan-Dearborn and Enrollment Management and Student Life, the Office for Student Engagement works to:

- Foster an inclusive living and learning community through innovative programs and services designed to build global leaders and citizens
- Provide support and resources to assist students in their personal, professional and academic development
- Advance engagement through strategic collaborations with academic affairs, University and community partners

This mission is accomplished through a variety of programs and services that complement students’ academic experience including student organizations, leadership programs, civic engagement opportunities, volunteer experiences, inclusion programming and much more!

The Office for Student Engagement is located in 2136 University Center, (313) 593-5390. They can also be reached at student_engagement@umich.edu. For more information about Office for Student Engagement programs and services, please visit http://sao.umd.umich.edu.

**Student Success Center**

The mission of the Student Success Center is to prepare and educate students to succeed. Students are encouraged to stop by the Student Success Center whenever they need help. The SSC can help students manage and succeed academically, personally, and professionally.

The Student Success Center offers counseling, training, workshops, and resources to help students achieve success today and tomorrow. Whether it's tutoring in math, learning to set goals, finding the right career path, or making good choices, our Student Success Center helps students gain the confidence needed to reach their full potential.

A large range of services in Academic Assistance, Career Planning, Counseling and Disability Services, Personal Development, Women’s Services, International Services, and Veteran’s Services are offered by the Student Success Center. Overall services offered include:

- individual tutoring
- group study
- mentoring
- writing assistance
- supplemental instruction for classes
- study skills assessment & training
- exploring majors
- career planning
- career assessment
- interview training
- resume writing
- individual counseling
- procrastination assistance
- stress & time management
- test & math anxiety assistance
- disability services
- motivational interviewing
- goal setting
- self-advocacy
- work/life balance
- returning student support,
- personal safety
- English language assistance
- health insurance
- housing referrals
- homeland security compliance advising
- emergency assistance

Workshops/Seminars are also available in essay writing, test taking, note taking, overcoming math anxiety, goal setting, interviewing techniques, and how to study effectively. Students are referred to the College Writing Center, Math Learning Center, and Student Clubs & Organizations.

The Student Success Center (SSC) is a coalition of the following Enrollment Management & Student Life (EMSL) departments: Academic Assistance; Career Services; Counseling & Support Services, Office of International Affairs, and the Women’s Resource Center.

The Student Success Center is located on the second Floor of the University Center. Telephone: 313-583-6776. Website: umd.umich.edu/success.

Transportation

Access to the campus is available on bus routes operated by the Suburban Mobility Authority for Regional Transportation (SMART). Connecting service is available on routes operated by the Detroit Department of Transportation (DOT).

Direct service is available for most Detroit and western Wayne County residents, with transfer service available for Oakland and Macomb County commuters. The bus schedule may change without notice. Additional information may be obtained by telephoning SMART at (313) 962-5515.

Women's Resource Center

The Women’s Resource Center (WRC), located in 2106 University Center, offers assistance with self-advocacy, work/life balance, returning student support, and personal safety through programming and individual appointments. The overall mission of the center is to increase the empowerment of all women by offering quality programs; providing personal, professional, and academic coaching; encouraging students to reach their academic and post-graduate goals; linking women to current campus and community resources; and partnering with academic units and other women’s agencies to address gender and diversity issues.

In support of its mission the WRC provides quality programming and activities, extensive resources, a meeting place, volunteer opportunities and a commitment to collaborations. Visitors will find a variety of written materials for their use. A lending library offers books and magazines on issues of interest to women. A resource shelf offers pamphlets on diverse topics including scholarships, childcare, and domestic violence. An on-line resource guide contains community resources and referrals. The WRC’s Impact Grant provides small, emergency grants for students. These one-time grants, typically between $50 and $150, are meant to address serious unanticipated emergencies that could delay or halt the education of students. Grants may not be used for tuition.

For more information about these services and programs contact the Women’s Resource Center at (313) 583-6445 or WomensResourceCenter@umd.umich.edu or visit the WRC website at http://www.umd.umich.edu/womenscenter/.

Statement on Academic Integrity

The University of Michigan-Dearborn values academic honesty and integrity. Each student has a responsibility to understand, accept, and comply with the University’s standards of academic conduct as set forth by the Code of Academic Conduct, as well as policies established by the schools and colleges. Cheating, collusion, misconduct, fabrication, and plagiarism are considered serious offenses. Violations will not be tolerated and may result in penalties up to and including expulsion from the University.

Student Rights And Responsibilities

The University of Michigan-Dearborn is composed of a diverse group of individuals and interests, drawn together by a common belief in the values of an education and appreciation for the significant contribution of our personal differences to that education and each other. Maintaining an environment that ensures harmony and a positive learning environment is a responsibility shared by all members of the campus community. The following information identifies behavior expectations in support of fulfilling these responsibilities and the means by which complaints may be resolved. Any member of the campus community who believes that a violation of any of these rights and responsibilities has occurred may obtain assistance in seeking redress from Ombuds Services or the Affirmative Action Coordinator.

For information regarding student academic conduct policies and procedures, see sections on Arts, Sciences, and Letters; Education; Engineering; and Management.

Student Records and Student Rights

In carrying out their assigned responsibilities, many offices at the University of Michigan collect and maintain information about students. Although these records belong to the University, both University policy and federal law accord you a number of rights concerning these records. The following is designed to inform you concerning where records about you may be kept and maintained, what kinds of information are in those records, the conditions under which you or anyone else may have access to information in those records, and what action to take if you believe that the information in your record is inaccurate or that your rights have been compromised.

Because the University does not maintain all student records in one location, the following contains general information related to student records. By direction of the Regents, however, each office that maintains student records is required to develop a written statement of its policies and procedures for handling those records. For more information about FERPA, visit the University of Michigan Office of the General Counsel’s web page at: umich.edu/~vpge/faq_student.html.
STUDENT RECORDS LOCATION

If you are in any college except Rackham, your dean’s office or your academic advisor has information concerning your academic progress: admissions application, test scores, letters of recommendation, copy of academic record, notes (if any) made by academic counselors, information about honors awarded and/or academic discipline imposed, and similar items.

Only two offices have records on all students. The Office of Registration & Records maintains information pertaining to your enrollment (registration) and your official academic record. The Student Accounts Office maintains information about charges assessed and payments made to your account.

The other offices listed at the end of this document will usually have information about you only if you have had dealings with them or utilized their services.

STUDENT RIGHTS

Once you attend, you have the following rights concerning your student records:

1. The right to inspect and review all material in your file(s) except:
   a. Professional mental health treatment records to the extent necessary, in the judgment of the attending physician or professional counselor, to avoid detrimental effects to the mental health of the student or of others. These records may, however, be reviewed by a physician or other appropriate professional of your choice.
   b. Financial information furnished by your parents in support of an application for financial aid.
   c. Confidential letters of recommendation that were placed in your file prior to January 1, 1975.
   d. Confidential letters of recommendation concerning admission, employment, or honorary recognition, for which you have waived access. (The University may not require you to sign a waiver in order to obtain services, but a person writing a recommendation may insist on a waiver as a condition for his or her writing it.)
   e. Personal notes made by a faculty member or counselor that are accessible only to that person and are not shared with others.
   f. Materials in any admissions files, until you have been admitted to, and have attended in the U-M school or college for which the materials were submitted.

Most offices will require you to file a written request if you wish to review your records. Sometimes the response will be immediate, but in most instances you should expect to wait several days; in no case, however, may the response be delayed more than 45 days from the date of your request. Also, once you have submitted such a request, no non-exempt material may be removed from the file in question until the matter is resolved.

NOTE: Federal law requires that an institution make copies of materials available to a student only if the failure to do so effectively prevents the student from reviewing his or her file (for example, if you were at some distance from the campus and could not readily come to the campus). Most offices at the University, however, will provide copies if you need them. You will probably have to wait several days for the copies and you will be charged not more than fifteen cents per page plus any postage involved. In certain instances, you may be directed to obtain copies from the office responsible for maintaining a particular record. For example, most offices will not copy transcripts (whether from U-M or another institution you have attended) that are in their files; rather, you will be advised to obtain them directly from the Office of Registration & Records here or at your former school.

2. The right to a hearing if you feel that (a) you have been improperly denied access to your records, (b) your records contain information that is inaccurate or misleading, or (c) information from your records has been improperly released to third parties. Each record-keeping office has a procedure for this purpose. The use of that procedure will result in one of the following:
   a. If the head of the office involved agrees with your contention, he or she will see to it that the necessary corrective action is taken.
   b. If the head of the office does not agree with your contention, you may request a hearing by a hearing panel or hearing officer designated by the unit’s procedures.
   c. If the decision of the hearing panel or hearing officer agrees with you, the necessary corrective action will be taken.
   d. If the decision disagrees with you, you have the right to submit an explanatory statement, which must be included as a permanent part of your record.

3. The right, in most instances, to control access to information in your records by persons or agencies outside the University. Within the University, information from your records will be made available to those staff members who demonstrate a legitimate educational interest consistent with their official functions for the University and consistent with normal professional and legal practices.
   a. Except for directory information (see d below), however, persons outside the University - including your parents and/or spouse - will be given information from your records only (1) when you authorize it in writing, or (2) in connection with your application for or receipt of financial aid, or (3) in connection with studies conducted for the purpose of accreditation, development and validation of predictive tests, administration of student aid programs, or improvement of instruction, or (4) when disclosure is required in a health or safety emergency or by federal or state law or by subpoena. If information from your record is subpoenaed, you will be notified as quickly as possible. In addition, the results of a disciplinary hearing conducted by the institution against the alleged perpetrator of a crime of violence will be made available to the alleged victim of that crime.
   b. Each office is required to keep a record of all requests for non-directory information from your records made by persons outside the University, and to make that record available for you to examine.
   c. Federal law requires that the University designate what it regards as directory information and which may, therefore, be released to those outside the University without specific authorization. The law also requires that each currently enrolled student be given the opportunity to direct that items designated as directory information not be released without his or her consent.
   d. The University of Michigan-Dearborn has designated the following items as directory information: (1) name, (2) permanent and local address and telephone, (3) U-M college, (4) class level, (5) major field, (6) dates of attendance at the University of Michigan, (7) degree received and date awarded, (8) honors and awards
Statement of Student Rights and Code of Student Conduct

The following are excerpts from the "University of Michigan-Dearborn Statement of Student Rights and Code of Student Conduct." Complete copies of the Code are available in the Office of Student Affairs, 1060 Administration Building.

SECTION 1. INTRODUCTION

The primary purpose of the Statement of Students Rights and Code of Student Conduct is to assist the University of Michigan-Dearborn (hereinafter in this document called the University) in providing an environment that supports the educational process and well-being of the campus community. The responsibility for maintaining such an environment is shared by all members of the campus community.

Student rights and student conduct are defined in this Statement and Code in order to give general notice of conduct expectations, to identify sanctions which shall be imposed when misconduct occurs, and to ensure that students are treated with fundamental fairness and personal dignity. Disciplinary proceedings initiated in response to a charge of violation will be the responsibility of the Code Judicial System and will be undertaken according to the provisions and procedures articulated by the Code. The focus of inquiry in disciplinary proceedings will be on the question of guilt or innocence of those charged with violating the Code.

The Statement and Code is an articulation of the University's commitment to recognize and support the rights of its students and to provide a guide for defining behaviors the University considers inappropriate. It is not, however, meant to be an exhaustive list of all rights supported by the University or of all actions that may be considered misconduct.

Members of the University community are accountable to both civil authorities and to the University for acts which violate the law and this Code. Disciplinary action at the University will, normally, proceed during the pendency of external civil or criminal proceedings and will not be subject to challenge on the grounds that external civil or criminal charges involving the same incident are pending or have been invoked, dismissed or reduced.

The discontinuance of enrollment of a student does not negate the jurisdiction of this Code, which shall remain applicable with respect to matters that arose when the person was a student. Adjudication of alleged violations of the Code by a University employee will be handled, via the Code Judicial System, by the appropriate University resources.

The UM-Dearborn Statement of Student Rights and Code of Student Conduct was written by students, faculty, and staff of the UM-Dearborn.

SECTION 2. STUDENT RIGHTS

In recognition of students' rights and dignity as members of the University community, the University of Michigan-Dearborn is committed to supporting the following principles and to protecting those rights guaranteed by the Constitution, the laws of the United States and the State of Michigan, and the policies adopted by the Board of Regents.

1. Students have the right to free inquiry, expression, and association.
2. Students have the right to editorial freedom in student publications and the student media.
3. Students have the right to representation on the appropriate, designated University decisionary bodies.
4. Students accused of misconduct or of violating University policy have the right to have their guilt or innocence determined in accord with University procedures.
5. Students have the right to protection against improper disclosure of their student record as provided for in the Family Educational Rights and Privacy Act.
6. Students have the right of access to their personal records and other University files as provided for under the Family Educational Rights and Privacy Act and the Michigan Freedom of Information Act.
7. Students have the right to access all policies, rules, and decisions concerning their continued enrollment, and to those course materials and facilities necessary to pursue their studies.
8. Students have the right to educational programs that meet the objectives of the discipline, to teaching consistent with those objectives, and to a learning environment that encourages the students' active participation.
9. Students have the right to be informed by the faculty at the beginning of each term about course requirements, evaluation procedures, and evaluation criteria to be used, and the right to expect that those criteria be employed.
10. Students have the right to take reasoned exception to the data or views offered in any course of study; they are, however, responsible for learning the content of any course of study for which they are enrolled.
11. Students have the right to be evaluated solely on relevant academic criteria and to have protection against prejudicial or capricious academic evaluation.
12. Students have the right to request and receive timely assessment of their academic work.
13. Students have the right to request and receive a reasoned, impartial, and timely review of their grades.
14. Students have the right of redress if their rights have been violated.

SECTION 3. STUDENT CONDUCT

Students are expected to conduct themselves in a manner conducive to an environment of academic integrity and of respect for the educational process and the safety and well-being of all members of the campus community. The actions cited as prohibited conduct should be used as a guide rather than an exhaustive list of behaviors the University considers misconduct and subject to disciplinary action.

Prohibited Academic Conduct

The following actions shall be considered academic misconduct and be subject to disciplinary action:

1. Furnishing false information to the University pertaining to one's own or to others' academic work, activities, records or status or initiating, or causing to be initiated, any false report pertaining to one's own or to others' academic work, activities, records or status (Falsification of Records or Official Documents).
2. Possessing, using, or distributing and altering or destroying any materials or information for the purpose of dishonestly affecting one's own or others' academic work, grades or student status (Cheating).
3. Aiding or abetting another in obtaining, using or distributing any materials or information for the purpose of dishonestly affecting one's own or others' academic work, grades, or student status (Aiding and Abetting Dishonesty).
4. Submitting as one's own any work which, in part or whole, is not entirely one's own work without properly attributing it to its correct source (Plagiarism).
5. Presenting data that were not gathered, or are not accounted for, in accordance with the appropriate methods for collecting and generating data (fabrication).
6. Interfering with the academic work or study of other members of the University community. This includes, but is not limited to, alteration, destruction, and denial of access to learning materials.
7. Failing to comply with additional specific criteria for academic conduct communicated by the instructor to his/her class regarding assignments, tests, and/or exams.
8. Violating, or aiding and abetting the violation of, any published University academic policy, regulation, or procedure.
9. Attempting to commit, or assisting another in attempting to commit, any act prohibited by Section 3.A. of this Code.
10. Violating the terms of any disciplinary sanction imposed in accordance with Section 3.C. of this Code.

Prohibited Non-Academic Conduct

The following actions shall be considered non-academic misconduct and be subject to disciplinary action:

1. Causing or threatening to cause harm to any person on University premises or at University-sponsored activities and events.
2. Hazing, i.e., action taken or situation created for the purpose of initiation of affiliation with any University organization or team, with or without the consent of the individual, which jeopardizes the physical or mental well-being of the individual. Hazing includes: physical injury, assault, or battery; kidnapping or imprisonment; forced consumption of any liquid or solid; mandatory personal servitude; interference with academic endeavors.
3. Interfering with normal University or University-sponsored activities. This includes but is not limited to studying, teaching, research, University administration, or campus safety, fire, police, or emergency services.
4. Interfering with the freedom of expression or rights of individuals on the University premises or at University-sponsored activities.
5. Harassment, i.e., physical force or violence or behavior, including stalking, that involves a deliberate interference or a deliberate threat to interfere with an individual's personal safety, academic efforts, employment, or participation in University-sponsored activities and causes the person to have a reasonable apprehension that such harm is about to occur. Students may not use threats concerning the terms or conditions of an individual's education, employment, housing, or participation in a University activity as a way to gain sex and/or sexual favors.
6. Furnishing false information to the University.
7. Failing to comply with directions of University officials, including campus safety, acting in performance of their duties.
8. Initiating or causing to be initiated any false report, warning, or threat of fire, explosion, or other emergency on University premises or at University-sponsored activities.
9. Theft of University property or funds or misuse of services on University premises; possession of stolen University property; possession of stolen property on University premises.
10. Destroying, or damaging, or misusing, or unauthorized use of any University funds, equipment, materials, or property
including safety equipment and library materials; or such equipment or materials of others when on University premises.

11. Unauthorized use, possession, or storage of any weapon on University premises or at University-sponsored activities.

12. Unauthorized use or possession of fireworks or explosives on University premises or at University-sponsored activities.

13. Unauthorized use or possession or distribution of any controlled substance, alcoholic beverage, or illegal drug on University premises or at University-sponsored activities.

14. Violations of any published University policies, including those regarding affirmative action or procedures regulating entry and use of University facilities and properties, sales or consumption of alcoholic beverages, use of vehicles and sound equipment, use of telephone equipment or privileges, campus demonstrations, and use of identification cards.

15. Commission of any state or federal crime on University premises or at University-sponsored activities.

16. Violations of the terms of any disciplinary sanction imposed in accordance with Section 3.C. of this Code.

17. Attempt to commit any act prohibited by Section 3.B. of this Code.

Sanctions

The sanctions to be imposed should be commensurate with the offending conduct. Because education may be the most effective and appropriate means of addressing behavior that violates the standards of a university community, the University encourages fashioning sanctions to include an educational element that may help students understand their behavior in the context of the academic community. Although it is inappropriate for the University to try to change student's convictions, it is appropriate for the University to ask a student to change behavior. Sanctions should, therefore, be designed which may deter behaviors that harm, intimidate, harass, or threaten others.

Factors that may be considered in determining the nature of sanctions to be imposed for Code violation include the intent of the respondent, the effect of the conduct on the victim and the University community, presence or absence of violations of the Code on the part of the student, the presence or absence of past violations of the standards on the part of the student, and the appropriateness of sanctions such as community service.

Regrettably, some conduct is so harmful to members of the University community or deleterious to the educational process that more severe sanctions may be required. Severe sanctions, such as suspension or expulsion, should be imposed only when the offending behavior involves violent or dangerous acts, acts that disrupt the educational process and/or when there has been willful failure to comply with a lesser sanction. The Chair of the Conduct Board shall consult with the Dean of the School/College in which the student is enrolled before expulsion or suspension is imposed.

The range of potential sanctions is as follows:

1. Suspension from Specific Course or Activity. The student is removed from a specific course or activity, or is moved to a different section of the course.

2. Class Attendance. The student enrolls in and completes a class that may help improve his/her understanding of why the conduct engaged in is inappropriate.

3. Community Service. The student performs an appropriate amount of service that is both beneficial to the community and likely to assist the student in understanding the harm caused by his or her conduct.

4. Disciplinary Reprimand. The student receives a formal reprimand for violating the standards of behavior and a warning that future violations may result in more severe disciplinary action. The student does not lose his/her University privileges.

5. Disciplinary Probation. During the probation period, the student may not represent the University in any way. This includes, but is not limited to, engaging in any extracurricular activity, running for or holding office in any student group or organization, and serving on any University committees. The appropriate University units shall be notified of the student's probationary status.

6. Suspension in Abeyance. The student remains enrolled. However, any violation of the conduct regulations during the period of Suspension in Abeyance will, after a determination of guilt, result in automatic suspension.

7. Suspension. The student is temporarily separated from the University for a specified period of time. Conditions may be stipulated for the readmission of a student. When a student is suspended during a term, he/she is not exempted from the payment of tuition for that term.

8. Expulsion. The student is permanently separated from the University. Penalty shall consist of the student being barred from the premises of the University. When a student is expelled during a term, he/she is not exempted from the payment of tuition for that term.

9. Restitution. The student makes payment to the University for damages incurred by the University as a result of his/her violation.

10. Other Disciplinary Actions. In addition to or in place of the above sanctions, the student may be subject to other penalties commensurate with the offending conduct. This may include but is not limited to degree and/or transcript actions, such as recession of a degree, withholding of course credit, loss of credit for an assignment/exam, assignment of additional work, loss of special privileges, behavioral counseling, or a behavioral contract.

11. Combined Sanctions. A combination of the sanctions described above may be imposed.

The sanctions imposed under these standards do not diminish or replace the penalties that may be invoked under generally applicable civil or criminal laws. Students are reminded that many violations of the standards, including harassment and other discriminatory behavior, may violate various local, state and federal laws and, therefore, also be subject to legal action.

JUDICIAL SYSTEM

The University of Michigan-Dearborn judicial system shall provide a uniform, fair, and impartial process for the reporting, adjudicating, and resolving of alleged violations of the University of Michigan-Dearborn Statement of Student Rights and Code of Student Conduct. Copies of this document, which describes procedures for reporting and responding to incidents of alleged misconduct, are available in the Office of Enrollment Management and Student Life, 1060 Administration Building.
College of Arts, Sciences, and Letters

Administration

Martin J. Hershock, PhD, Dean
Ilir Miteza, PhD, Associate Dean
Jennifer Zhao, PhD, Associate Dean
Robin L. Wagner, MBA, Financial Manager
Marlene Pruitt, BA, Business Administrator
Susan Cushnier, MA, Academic Outreach
Ellen Judge-Gonzalez, MA, Director, Student Outreach and Academic Resources (SOAR Program)
Carol Ligienza, BGS, Graduate Programs, Retired Persons Scholarship Program
Elizabeth Fomin, Program Manager, CASL Online
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Patricia Martin, MPA, Program Manager, Cooperative Program Management
Karen Wittkopp, Director, Advising and Student Records
Don Barbacci, Technical Support Manager
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Deborah Parker, Assistant to the Dean for Academic Affairs
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Kevin Early, Director, Criminal Justice
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Elizabeth Rohan, Director, MA in Liberal Studies
Ara Sanjian, Director, Center for Armenian Studies
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David Susko, Director, Environmental Interpretive Center
Dale Thomson, Director, Masters of Public Policy & Masters of Public Administration
Sonia Tiquia, Director, MS in Environmental Science
Roger Verhey, Director, Center for Mathematics Education

Professors Emeriti

Akiyama, Michael, PhD, Professor Emeritus of Psychology
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Berkove, Lawrence, PhD, Professor Emeritus of English Language and Literature
Bogin, Barry A., PhD, Professor Emeritus of Anthropology
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Garland, Frank, PhD, Associate Professor Emeritus of Chemistry
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Twomey, Michael J., PhD, Cornell University, Professor of Economics
Vecchiola, Carla, PhD, University of Michigan, Lecturer III in History
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General Information

Arts, Sciences, and Letters the Liberal Arts College at the University of Michigan-Dearborn

The College of Arts, Sciences, and Letters (CASL) is the liberal arts college at UM-Dearborn. Following the long-standing University of Michigan tradition of sound liberal arts education, the College emphasizes breadth and depth of learning. The programs of the College are designed to prepare students who can communicate clearly, reason and make critical judgments, distinguish facts from values, and understand their cultural and artistic heritage. Individuals who are educated in this manner will be able to adapt successfully not only to their first jobs but also to a rapidly changing world. With a sound liberal arts education, they will be equipped to give society leadership and vision.

With a full-time faculty of over 150, the College offers 35 liberal arts degree programs and over 1000 courses to its 4500+ enrollment at UM-Dearborn. In addition, the College provides the liberal arts foundation for all degree programs on campus and is the academic unit on campus that reflects in itself the diversity essential to and inherent in a modern comprehensive university. The College is the largest academic unit at UM-Dearborn and the third largest of all academic units on the three campuses of the University of Michigan.

History of the College

From the beginning of the Dearborn Center of the University of Michigan, as it was first called, there was "an intent to provide a full schedule of daytime courses in Engineering, Business Administration, and the Liberal Arts and Sciences" (Report by the University's Dean of Statewide Education, January 1957). On January 10, 1958, the Regents approved the creation of the Division of Literature, Science, and the Arts (LSA) as an official academic division. Full programs in the liberal arts began in Fall, 1960; and in Fall, 1965, the LSA Division became the largest academic unit on the Dearborn Campus, a distinction which continues to the present.

When it became a four-year undergraduate institution in 1971, the Campus was designated the University of Michigan-Dearborn (UM-Dearborn). Two years later, the Regents approved a new set of UM-Dearborn Bylaws, in which the Department of Education became a separate division, and the LSA Division became the College of Arts, Sciences, and Letters (CASL), administered by a Dean. Since then, CASL has evolved to comprise six multidisciplinary departments: Behavioral Sciences; Mathematics and Statistics; Language, Culture and Communication (LCC); Literature, Philosophy and the Arts (LPA); Natural Sciences; and Social Sciences. CASL is also home to ten college wide programs: African and American African Studies (AAAS); American Studies; Arab American Studies; Criminal Justice Studies; General Studies; Law and Society; Liberal Studies; Religious Studies; Science and Technology Studies; and Women and Gender Studies.

Mission of the College

As was true in Paris and Bologna in the fourteenth century and as is true in Cambridge, Ann Arbor, and Dearborn in the twenty-first, liberal arts colleges are the "sine qua non" of universities. The pre-eminence of the College of Literature, Science, and the Arts at Ann Arbor is mirrored in the status of the College of Arts, Sciences, and Letters at Dearborn. The reason for this pre-eminence of liberal arts colleges is not difficult to ascertain. Together, they share an ideal, a goal: the cultivation of students' intellectual abilities, the refining of their sensibilities, and the enlargement and deepening of their awareness and knowledge.

CASL is the intellectual core of the campus. In the College, a distinguished faculty of teacher-scholars aims to cultivate the intellectual abilities of a diverse and talented student body and to enlarge, refine, and deepen their awareness and knowledge. Through traditional degrees and such distinctive programs as cooperative education, undergraduate research and interdisciplinary honors, the College emphasizes both the practical and the intellectual side of the liberal arts. In collaboration with the professional schools, it prepares students for the professions while helping them toward an understanding of human values and ethics. In partnership with the broader academic community, its faculty contribute significantly to the creation, application, and dissemination of knowledge. In addition, it provides significant service to the University and the wider community.

In mathematics and the natural sciences, emphasis is placed on rational, analytical, conceptual thinking and on mastery of precise methods of inquiry, especially experimentation, that produces results that may be replicated.

In the humanities, methodology is equally important, but it is less exclusively rational, because the study of art, literature, and music depends on the manner – partly emotional, partly imaginative – in which these are experienced.

The social and behavioral sciences offer a political, social, economic, psychological, and cultural storehouse from which students can draw in order to understand the past, cope with the present, and design the future.

In CASL, emphasis is not placed exclusively on specific preparation for a narrow career track, but rather on providing a broad-based liberal arts background which offers an ethical and moral foundation from which graduates may grow. Basic core knowledge will aid graduates in their vocational career choices, but facts in many occupations may have a life of less than a decade. By contrast, values endure for a lifetime.

Organization of the College

Among the three liberal arts colleges on the University of Michigan campuses (Ann Arbor, Dearborn and Flint), our College stands out because it is organized in a unique manner. Instead of being fragmented into many traditional single-discipline departments, the College is mainly organized into six multidisciplinary departments: Behavioral Sciences; Mathematics and Statistics; Language, Culture and Communication; Literature, Philosophy and the Arts; Natural Sciences; and Social Sciences.

The Behavioral Sciences Department houses and offers degree programs in three disciplines: anthropology, psychology, and
sociology. The Department also offers interdisciplinary degree programs in behavioral sciences and health policy studies and a graduate program in Health Psychology. The office of the Behavioral Sciences Department is located in Room 4012, CB.

The Language, Culture and Communication (LCC) Department houses six disciplines: Comparative Literature, Composition and Rhetoric, Journalism and Screen Studies, Linguistics, Modern and Classical Languages (including Arabic, French, German and Spanish), and Public Communication and Culture Studies (including Speech). It offers degree programs in French Studies, Communication, and Hispanic Studies. It also offers an interdisciplinary degree in International Studies. In addition, the Department offers minors in Arabic Studies, Comparative Literature, Film Studies, German, and Linguistics. To support its programs in Modern languages, the Department houses the Kochoff Foreign Language Media Laboratory (3065 CB) with extensive resources for language learning such as audio and video course materials, foreign language writing assistant programs, and foreign language TV programs via satellite. To support its programs in Communications, the department houses a TV studio, an audio lab, and video editing facilities with state-of-the-art software, as well as a dedicated computer classroom (3034 CB) with 24 workstations. The office of the Language, Culture and Communication department is located in Room 3016, CB. The phone number is (313)593-4778.

The Literature, Philosophy, and the Arts Department (LPA) houses degree programs in three disciplines: art history, English literature, and philosophy. It offers an interdisciplinary degree program in humanities, a minor in medieval and renaissance studies, as well as courses in applied art, applied music, and music history. The Literature, Philosophy, and the Arts Visual Resources and Music Collections (VRMC) supports the instructional needs of the department, especially art history, applied art (studio art), and English literature. The collection contains over 95,000 analog slides, 1500 compact discs and phonograph records, 200 videocassettes and other instructional materials. Digital images from the VRMC collection are available from the Image Collections supported and maintained by Digital Library Production Service (DLPS) at quod.lib.umich.edu. The office of the Language, Culture and Communication department is located in Room 3016, CB. The phone number is (313)593-4778.

The Mathematics and Statistics Department offers a degree program in the discipline of mathematics, with an emphasis on either pure or applied mathematics. In addition, the Department offers minors in Applied Statistics, Computer and Computational Mathematics, and Mathematics. The Mathematics Placement Exam and the Mathematics Learning Center are both administered by the Department. The office of the Mathematics and Statistics Department is located in Room 3011, CB.

The Mathematics and Statistics Department offers a degree program in the discipline of mathematics, with an emphasis on either pure or applied mathematics. In addition, the Department offers minors in Applied Statistics, Computer and Computational Mathematics, and Mathematics. The Mathematics Placement Exam and the Mathematics Learning Center are both administered by the Department. The office of the Mathematics and Statistics Department is located in Room 3011, CB.

The Mathematics and Statistics Department offers a degree program in the discipline of mathematics, with an emphasis on either pure or applied mathematics. In addition, the Department offers minors in Applied Statistics, Computer and Computational Mathematics, and Mathematics. The Mathematics Placement Exam and the Mathematics Learning Center are both administered by the Department. The office of the Mathematics and Statistics Department is located in Room 3011, CB.

The Natural Sciences Department houses and offers degree programs in three disciplines: biological sciences, chemistry, and physics. The Department also offers interdisciplinary degree programs in biochemistry, chemistry instruction, earth sciences, environmental science, environmental studies, integrated science, and microbiology; geology and astronomy are available as minors. Also available are the GIS and MEDS certificate programs, The Science Learning Center, the greenhouse, and the observatory are administered by the Department. The office of the Natural Sciences Department is located in Room 125, Science Building.

The Social Sciences Department houses and offers degree programs in Economics, Geography, History, Political Science, Social Studies and Urban and Regional Studies, as well as graduate degrees in Public Policy and Public Administration. The office of the Social Sciences Department is located in Room 2140 Social Sciences Building.

The College supports several interdepartmental programs, some administered directly by the College and some administered by departments. These include degree programs in American Studies, Criminal Justice Studies, General Studies, Health Policy Studies, Liberal Studies, and Women’s and Gender Studies, and minors in African and African American Studies, Law and Society, Leadership and Communication in Organizations, Medieval/Renaissance Studies, Organizational Change in a Global Environment, Religious Studies, Science and Technology Studies, Social Science Research Methodology, and Society and Technological Change. The College also supports the Honors Program, coursework in Arab and Arab American Studies, a program for study in Japan, and the Cooperative Education Program.

Degrees Offered

Students may obtain a Bachelor of Arts (AB), Bachelor of Science (BS), or Bachelor of General Studies (BGS) from CASL. The BGS degree, reserved for students transferring from a community college with an associate degree, is discussed under Degree Requirements.

A liberal arts degree program affords a student both breadth and depth of learning. The course requirements for a degree may be divided into types: courses that give a broad, general education, those that provide depth in a specialization, and those that offer the tools needed for success in college and life.

Distribution

Distribution requirements are divided into Skills and Competencies, and Areas of Inquiry. Courses included under Skills and Competencies are intended to give students tools they will need in English Composition, Foreign Language, and Mathematics. Areas of Inquiry courses give students experience across the breadth of the liberal arts: Arts, Behavioral and Social Analysis, Biological and Physical Sciences, History, and Letters. Liberal Studies (LIBS) courses which appear in distribution areas are first year seminars, are generally taught only in Fall semester, and open only to newly admitted freshmen.

A student seeking a degree from CASL must fulfill the coursework specified below. All of these courses, except as noted, are at the 100 and 200 level. They should generally be completed during the freshman and sophomore years. These requirements, adopted in 1987, apply to newly admitted freshmen, transfer students, and readmitted students alike.

SKILLS AND COMPETENCIES

English Composition (6 hrs)

| COMP 105 | Writing & Rhetoric I |
| COMP 106 | Writing & Rhetoric II |

Each incoming student will take the UM-Dearborn Composition Placement Examination (CPAS). Excellent performance on the examination may result in a determination that learning outcomes for COMP 105 and/or COMP 106 have been fulfilled. If a student without transfer credit for either COMP 105 or 106 performs below the minimum acceptable level he or she will be required to take and pass COMP 099, which does not count toward a degree. A transfer student with COMP 105 and 106
equivalency who is placed into COMP 099 will be required to take and pass COMP 227. Students completing COMP 105, 106, 270, or 280 at UM-Dearborn must pass these courses with a minimum C- grade. Students who earn a grade lower than a C- will be given an NC (No Credit), and will be required to repeat the course.

Note: Students enrolled in the Honors Program will take COMP 110 and 220 in place of 105 and 106.

Foreign Language (8 hrs)
A two-course sequence from:
- ARBC 101 & 102 Arabic
- FREN 101 & 102 French
- GER 101 & 102 German
- LAT 101 & 102 Latin
- MCL 111 & 112 Armenian
- MCL 105 & 106 Greek
- SPAN 101 & 102 Spanish

The foreign language distribution requirement can be met by:
- Successfully completing a two-semester beginning language sequence at UM-Dearborn, or
- Transferring the equivalent of 8 semester hours of a beginning language sequence from another college or university, or
- Successfully completing a 3- or 4-semester hour foreign language course (this course cannot be taught in English) at the 102 level or higher, or
- Having completed at least 3 years (in the same language) of foreign language in high school with a grade of C or better in the final course, or
- Having completed the equivalent of a high school diploma at a school that used a language other than English for instruction. (Appropriate documentation attesting to the language of instruction and graduation from the high school program is necessary, and official English translations of foreign transcripts must be provided), or
- Passing an oral and written proficiency exam.

A student with prior knowledge of Arabic, French, German or Spanish should take a placement examination before registering for a course in that language. Placement/proficiency exams in French, German, and Spanish are administered by the Office of Admissions and Orientation; call (313) 593-5293 for more information and to see if a tester is available. A student wishing to waive the foreign language requirement must officially submit a request in writing via a petition form. Please note that when the requirement is waived, or proficiency is demonstrated by exam, credit will not be awarded for courses not taken.

Mathematics (3-4 hrs)
Suitable distribution courses for most non-Math, non-Science majors: LIBS 111, 127; MATH 131, 363
Pre-Calculus and Calculus I courses:
- MATH 104, 105, 113.

Note: MATH 080 and 090 do not count toward degree however, math placement must be followed. A C- or higher grade is required to advance to the next level of mathematics required for degree.

AREAS OF INQUIRY

Arts (3 credit hours)
- ARTH 101, 102, 103, 104, 106
- JASS 240, 248
- MHIS 100, 120, 130, 340, 333

Behavioral and Social Analysis (9 hrs)
A student must elect at least one course from Group A and one from Group B.

Group A
- ANTH 101, 202
- LIBS 112, 116, 117, 118, 123, 126, 128
- PSYC 170, 171
- SOC 200, 201

Group B
- ECON 2001, 201, 202
- LIBS 112, 114, 116
- POL 101, 201, 205, 250, 260

Biological and Physical Sciences (7-8 hrs)
At least one 4 credit hour lecture and lab is required.

Non-science major options:
- ASTR 130 or 130+131
- BIOL 100
- CHEM 100
- ESCI 275
- NSCI 120, 121
- PHYS 100

Science major options:
- BIOL 103 & 105
- CHEM 124, 136, 144, 146
- GEOL 118, 218
- LIBS 117, 123
- PHYS 125, 126, 150, 151

Courses with a “+” provide an optional laboratory component. The first number is the lecture course, which may be taken separately. The second number is the optional lab course, which requires prior completion or concurrent enrollment in the lecture. BIOL 100, ESCI 275, PHYS 100 are lecture only; there is no associated laboratory course. Although BIOL 103 and BIOL 105 may be elected separately, they must be taken together to meet the requirement. NSCI 120 and BIOL 100 (or 103+105) may not be used together to meet the requirement. NSCI 231, 232, 233, normally taken by elementary education students, have a prerequisite of EXPS 220 Exploratory Studies. Students who take these courses and ultimately transfer to CASL may use them toward CASL distribution as follows: one course from NSCI 231, 232, 233 would fulfill the non-laboratory course requirement; two courses would fulfill the laboratory requirement; three courses would completely satisfy the biological and physical sciences requirement.

History (3 hrs)
Any HIST course offered except HIST 300, 398, 399, 485, 497, 498, or 499
- LIBS 112, 113, 116, 119, 120, 121, 132

Letters (3 hrs)
- COML/HUM 221, 222, 223
- ENGL 200, 230, 231, 232, 233, 235, 236, 237, 238, 239
- RELS 201
- LIBS 112, 114, 115, 122, 123, 124, 125, 129, 130, 131, 133, 134, 135
- PHIL 100, 120, 200, 240
Diversity Requirement

Students who enroll after September 1, 2004, must satisfy a three-credit hour diversity course requirement. Students will choose from a list of approved courses on global issues, national issues, or both. Diversity is defined here to include cultural diversity, racial as well as ethnic diversity, religious diversity, social class, gender, sexual orientation, age, and ability/disability status. Some courses may be “shared” to also satisfy a distribution requirement or a requirement for a major or minor.

The list of approved courses is available in the CASL Advising and Records Office, 1039 CB, (313) 593-5293, and is posted on the CASL Advising and Records Office website.

Majors

WHAT IS A MAJOR?

A college degree experience includes depth as well as breadth. Each student in an AB or BS degree program must choose a field in which to specialize, which is called a major.* A major is a program of specialized study that normally consists of a minimum of 30 credit hours of work at the upper-level level (courses numbered 300 through 499 and 3000-4999) taken mainly during the student's final two years. A major allows a student to develop independence and discrimination of thought and judgment and to learn to appreciate, assimilate, and apply a coherent body of knowledge.

The College offers the following majors that normally lead to the degree (AB, BGS, or BS) listed.

American Studies .................................................. AB
Anthropology .......................................................... AB
Art History .............................................................. AB
Behavioral Sciences ................................................. AB
Biochemistry ............................................................ BS
Biological Sciences .................................................. BS
Chemistry (ACS Certified) ......................................... BS
Chemistry/Instructional ............................................. BS
Communication ......................................................... AB
Criminal Justice Studies .......................................... AB
Earth Science ............................................................ BS
Economics ............................................................... AB
English ................................................................ AB
Environmental Science ............................................. BS
Environmental Studies ............................................. AB
French Studies ........................................................ AB
General Studies ....................................................... BGS
Health Policy Studies .............................................. AB
Hispanic Studies ....................................................... AB
History ................................................................ AB
Humanities .............................................................. AB
International Studies ................................................ AB
Journalism and Screen Studies .................................. AB
Liberal Studies ......................................................... AB, BS
Mathematics ............................................................ AB, BS
Microbiology ........................................................... BS
Philosophy ............................................................... AB
Physics .................................................................. BS
Political Science ....................................................... AB

Psychology ................................................................. AB
Social Sciences .......................................................... AB
Sociology ................................................................. AB
Urban and Regional Studies ....................................... AB
Women’s and Gender Studies .................................... AB

*Liberal Studies offers the student an opportunity to design an AB or BS degree program from three 12 or 15 credit hour fields of study called Areas of Focus.

MAJOR REQUIREMENTS

Certain introductory courses, designated prerequisites, are designed to give students the knowledge and skills needed in the advanced courses. Undecided students will find these courses helpful in making a decision about majoring in the field.

A program of study in a major should be planned in consultation with the faculty program advisor. The advisor must approve the content of the major and can help the student achieve a sound and harmonious program.

The following rules apply to most majors:
1. Generally in most single discipline majors, at least 30 upper-level credit hours are required. At least 24 credit hours must be taken in the field of the major and at least 6 credit hours of cognate courses are required. A cognate course is in a related field.
2. The courses used to fulfill the 30 or more upper-level credit hours must be numbered 300-499 or 3000-4999. Note that courses taken at community colleges and lower division courses taken at other four-year institutions may not be used to fulfill this requirement.
3. Courses taken as major prerequisites may not be counted in the major.
4. Courses used to satisfy distribution requirements (with the exception of the diversity requirement) may not be used to satisfy major requirements.
5. A minimum grade point average (GPA) of 2.00 must be achieved in both major courses and cognate courses.
6. At the minimum, students must complete between 12 and 15 of the 30 credit hours at UM-Dearborn. Students transferring upper-level credits from other institutions should check with their major advisor for specifics of this residency requirement.
7. Students who have been off campus for one full year must complete the degree requirements in effect when they return.
8. Courses used in the major cannot dually be used in a minor.
9. Courses used in the major cannot be taken P/F (Pass/Fail)

DOUBLE MAJOR (OPTIONAL)

Students who want a double major must meet all requirements in both fields and must officially declare, and be approved for, both majors, in the CASL Office of Advising and Student Records, Room 1039 CB. Courses that satisfy major and/or cognate requirements for more than one field can be applied simultaneously to both fields.

AREAS OF FOCUS

Instead of a traditional major, students in the General Studies or Liberal Studies degree programs elect three Areas of Focus which can be in single disciplinary areas or in multi-disciplinary areas. A single disciplinary focus requires 12 hours at the 300 level or above. Multi-disciplinary areas of focus require 15 hours. At least two areas of focus must be within CASL. One area of focus may be in Business or CIS. Students interested in these programs should contact CASL Advising and Records in 1039 CB or call (313) 593-5293 for additional information.
RECOGNITION OF A MINOR (OPTIONAL)

A student in an AB or BS degree program (other than Liberal Studies) may apply for recognition of a minor. A student may declare a minor (completed or not) by filing the appropriate form at the CASL Office of Advising and Student Records. A final audit will be conducted at the time of graduation. Any posted minor that has not been successfully completed will be deleted from the student’s transcript.

A minor generally consists of a minimum of 12 or 15 credit hours of upper-level (300-499 and 3000-4999) coursework in a particular field of study. A minimum grade point average (GPA) of 2.00 is required in the courses applied to a minor. For minors offered by CASL, the grades (including E’s) in all upper-level courses in the discipline of the minor will be reflected in the minor GPA. Courses elected pass/fail (P/F) cannot be used in a minor.

Courses used in a minor cannot dually be used in a major.

Courses in the discipline of the minor will be reflected in the minor.

A single disciplinary minor requires a minimum of 12 credit hours of upper-level coursework. No more than three credit hours of transfer credit, field placements, internships, seminars, S/E-graded courses, and independent study/research may be applied to any 12 credit hour minor. Note that a few interdisciplinary majors do not offer minors. A minor may be obtained in the following fields of study even though there is no major offered: Applied Statistics; Arabic Studies; Astronomy, Comparative Literature; Computer and Computational Mathematics; Geology; German; Linguistics; and Music. In these fields, 12 credit hours of upper-level coursework are required.

An interdisciplinary minor consists of a minimum of 15 credit hours of upper-level coursework. Interdisciplinary minors are available in African and African American Studies; Arab American Studies; Communication; Environmental Studies; Film Studies; Geography; Global Cultures; Health Policy Studies; Journalism and Screen Studies; Law and Society, Leadership and Communication in Organizations; Medieval and Renaissance Studies; Organizational Change in a Global Environment; Religious Studies; Science and Technology Studies; Social Science Research Methodology; Society and Technological Change; Urban and Regional Studies and Women’s and Gender Studies.

There is no minor in International Studies, American Studies, Behavioral Sciences, General Studies, Liberal Studies, Chemistry/Instructional Track, or Social Studies.

In addition, there are several non-CASL minors available – Computer and Information Science (CIS), CIS-Game Design Option, Accounting, Finance, Information Technology Management, Management, and Marketing. The GPA for the CIS minor is based on CIS 150, 200, 275, and all upper-level CIS coursework. The GPA for the Business minors is based on ACC 298, ACC 299 (if taken), and all upper-level courses offered by the College of Business. Students who are not in the College of Business cannot elect or transfer more than 30 credit hours in courses offered by the College of Business. A maximum of six credit hours of transfer credit, field placement, internships, seminars, S/E-graded courses, and independent study/research may be applied to any interdisciplinary or non-CASL minor.

Other Requirements

TOTAL CREDIT HOURS

A minimum of 120 credit hours with an overall average of C (2.00) or better is required for graduation.

UPPER-LEVEL COURSEWORK

A minimum of 48 hours of upper-level (courses numbered 300-499 and 3000-4999) coursework must be completed by each student.

SENIOR RESIDENCY

Students must normally complete the last 30 credit hours required for graduation with coursework taken at UM-Dearborn. Students who have earned at least 30 hours of credit required for graduation at UM-Dearborn prior to the beginning of their senior year may, with the prior written approval of the advisor, 1) elect the last 30 credit hours at another campus of the University of Michigan, or 2) elect six credit hours at an institution other than a campus of the University of Michigan, subject to the CASL policy regarding coursework at other institutions.

CREDIT HOUR LIMITATION

There are maximum credit hours in any one discipline which may be applied toward the 120 credit hours needed for graduation. See major requirements for specific rules.

Degree Requirements: Summary

BACHELOR OF ARTS (AB)

To be recommended for the AB degree a student must have satisfied the CASL requirements previously listed in distribution, residency, credit hours, grade point average, and upper-level work. For all programs except Liberal Studies, the student must also complete the requirements for the major. The AB degree in Liberal Studies does not involve a major, but three fields of study called Areas of Focus. Minors are not available in Liberal Studies.

BACHELOR OF SCIENCE (BS)

To be recommended for the BS degree a student must have satisfied all the requirements for the AB degree and must have majored in one of the following programs: biochemistry, biological sciences, chemistry (ACS certified), chemistry/instructional, earth science, environmental science, microbiology, or physics. Alternatively, a student who earns 60 or more credit hours (at least 20 credit hours of which are in upper division courses 300 or above) in mathematics (including CCM and CIS courses 150 and above, and statistics courses) and/or the physical and biological sciences may, upon petition to the CASL Office of Advising and Student Records, Room 1039 CB, be granted the BS degree.

BACHELOR OF GENERAL STUDIES: TWO PLUS TWO (BGS) REQUIREMENTS

The Bachelor of General Studies degree is designed and ordinarily reserved for students who have earned an associate degree from a community college that has a "two-plus-two" articulation agreement with UM-Dearborn. Students with associate degrees from other appropriately accredited institutions may be considered for this "two-plus-two" option.

To be recommended for this degree, a student must have completed:

1. one course in mathematics; one course in the natural sciences; two courses in the behavioral and/or social sciences; two courses in the humanities; courses equivalent to two semesters of English Composition 105 and 106
2. 12-15 upper division (300 or above) credit hours in each of
three areas of focus with a GPA of at least 2.00 (exception: the GPA for the CIS area of focus is based on CIS 150, 200, 275 and all upper-level CIS courses)
3. one approved diversity course
4. a minimum of 48 upper division credit hours
5. a minimum of 120 credit hours with an overall GPA of at least 2.00.

Note: No more than 30 credit hours of upper-level coursework in any one discipline or area of focus can count in the 120 hours required for graduation. Students not in the BBA program of the College of Business cannot elect more than 30 credit hours in courses offered by the College of Business.

Only one area of focus may be outside CASL. At least 30 upper-level credit hours must be in courses taken in CASL. All courses used to satisfy area of focus requirements must be upper-level. No credit hours transferred from a community college or lower-division courses taken in a four-year institution may be included. Courses used to satisfy distribution requirements (with the exception of the diversity requirement) may not also be used to satisfy area of focus requirements. Courses elected on a Pass/Fail (P/F) basis may not be used to fulfill the 12-15 credit hour requirement in an area of focus. No more than three hours in a 12-hour area of focus, or six hours in a 15-hour area of focus, may be transfer, independent study/research, internship, or S/E graded. Students should be aware that upper-level courses, particularly in the sciences, mathematics, and CCM, may have substantial prerequisite requirements. Minors are not available with the BGS degree.

Students should consult with a professional staff advisor in the CASL Office of Advising and Student Records, Room 1039 CB, to discuss areas of focus and to develop a rationale for their individualized BGS curriculum.

Other Degree Options

SECOND BACHELOR DEGREE

A student who has already earned a bachelor degree from UM-Dearborn or any other accredited collegiate institution may apply to pursue a second bachelor degree through the Admissions Office (1145 University Center). If accepted, the student must complete at UM-Dearborn at least an additional 30 credit hours (regardless of the number of credit hours completed for the first degree), if the first degree was earned at UM-Dearborn; or 45 credit hours, if the first degree was earned elsewhere; and must satisfy all the requirements for the second degree program. The GPA for the second degree will be based on the cumulative academic records of all courses taken at UM-Dearborn. For further information, contact the CASL Office of Advising and Student Records, Room 1039 CB.

DUAL DEGREES

Students may apply for two or more degrees either within CASL or in CASL and another unit at UM-Dearborn. To earn both degrees, students must meet the degree requirements for each degree. Generally, distribution courses taken within CASL may be used to satisfy both degrees. Students should expect to elect at least 30 more credits to earn both degrees. Students are advised to contact a representative from each program to learn the specific requirements that must be met.

Some degrees, such as the degrees in Engineering Mathematics or CIS Mathematics, are only available as concurrent degrees and must be paired with a primary degree in either engineering or CIS. Students interested in dual degrees should see an advisor.

JOINT DEGREES

Students can get an early start in the graduate degree programs of the University's Ann Arbor Campus Dental School, Medical School, or School of Natural Resources and still be awarded a liberal arts degree from UM-Dearborn. Students must have a GPA of at least 3.00 and have completed the requirements for graduation except for the senior residency requirement. A maximum of 15 credit hours of appropriate required courses in the first two years of the graduate/professional degree program may count toward both the bachelor and the graduate degrees. At least 45 of the remaining 105 credit hours must be in residence at UM-Dearborn. For more information, contact the CASL Office of Advising and Student Records, Room 1039 CB.

CONCURRENT UNDERGRADUATE / GRADUATE STUDY (CUGS)

An exceptional student who has virtually completed an undergraduate program in three and one-half years with an outstanding record and who, in the judgment of both graduate and undergraduate faculty, is ready to enter a graduate program, is eligible to apply for early admission to the Horace H. Rackham School of Graduate Studies at the University's Ann Arbor campus. A maximum of 15 credit hours earned in courses elected in this early admission program count toward both the bachelor and the graduate degree. The bachelor degree is conferred at the next commencement upon the student's satisfactory completion of the prescribed course work and receipt by UM-Dearborn of the official transcript and diploma application.

Admission to CUGS requires: 1) a minimum 3.70 GPA, 2) completion of all requirements for the bachelor degree except in the concentration and in independent study or its equivalent. The student must have at least six courses in the field of concentration and one independent study experience. 3) During the junior year, the student should discuss the possibility of participating in the CUGS program with his/her program advisor and departmental chair. If the student's academic record and other qualities are judged exceptional, the chair brings them to the attention of the chair of the proposed graduate program at the Ann Arbor campus. 4) If the Ann Arbor graduate program chair agrees that an application should be submitted, the student contacts:
Office of Student Services
Room 120 Rackham Building
Horace H. Rackham School of Graduate Studies
University of Michigan
Ann Arbor, MI 48109
(734) 734-0171

Requirements for Transfer Students

ADMISSION REQUIREMENTS

A student who applies to UM-Dearborn with 24 or more semester hours of transferable credit (excluding advanced placement credit) is considered a transfer student. Students with fewer hours of college credit are considered freshmen for admission purposes. For freshman admission requirements, see the General Information section of this Undergraduate Catalog.
Admission to the College as a transfer student is based on the quality and content of both the high school and the college academic records. Standards of evaluation are designed to ensure that each student admitted has the intellectual capacity and the preparation to pursue advanced undergraduate work successfully. Admission criteria are not based on race, sex, color, religion, national origin or ancestry, age, marital status, handicap or veteran status.

The process of determining equivalent UM-Dearborn course and appropriate credit hours for a course taken at another institution is called credit certification. A student who believes that a course was not certified correctly should immediately contact the CASL Office of Advising and Student Records, Room 1039 CB. Any request for re-evaluation of credit must be petitioned in writing within six months.

Courses will not be transferable if completed with a grade lower than C. The College reserves the right to place students on registration hold if they have not provided an official transcript of their studies taken at another institution.

GENERAL REQUIREMENTS

Students entering the College with junior status will be expected to have completed most of the distribution requirements and, if applicable, major prerequisites. Deficiencies in either of these areas must be made up with all deliberate speed. Check with your major advisor for limits on the number of transfer credits that will be accepted toward degree requirements. Courses taken at other four-year institutions may be used in some cases to satisfy upper-level requirements in the major. Courses transferring from community colleges or other two-year institutions will be considered lower level or general elective credit only. They will not be considered upper level in the College of Arts, Sciences, and Letters.

Reminder: All students are required to declare a major when they reach 60 credit hours. Students transferring 62 hours or more are not required to declare a major before admission, but must do so during their first term at UM-Dearborn.

RESIDENCY REQUIREMENTS

Transfer students must complete at UM-Dearborn the last 30 to 58 credit hours before graduation. The precise number depends on the previously attended institution(s) and the maximum number of transferable credits. Institutions are classified into three categories: (2Y) includes all two-year institutions, (4Y) includes all four-year institutions other than the schools and colleges of the University of Michigan, (UM) includes only the schools and colleges of the University of Michigan. The table below gives the maximum transferable credits and minimum residency requirements.

Notes:
6. The transferable credit hours listed below are maximums. The exact number of transferable hours is determined upon official evaluation and may vary depending on the student’s program.
7. Advanced Placement, International Baccalaureate and A level coursework is treated the same as coursework from a four-year institution.
8. A maximum of 12 credit hours of applied art, applied music and music theory coursework may transfer and count toward graduation.

<table>
<thead>
<tr>
<th>Previously Attended Institutions</th>
<th>Maximum Transferable Credit</th>
<th>UM-Dearborn Residency Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Y (only)</td>
<td>62</td>
<td>58</td>
</tr>
<tr>
<td>4Y (only)</td>
<td>75</td>
<td>45</td>
</tr>
<tr>
<td>2Y &amp; 4Y</td>
<td>75 (62 from 2Y, 75 total)</td>
<td>45</td>
</tr>
<tr>
<td>UM (only)</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>2Y &amp; UM</td>
<td>90 (62 from 2Y, 90 total)</td>
<td>30</td>
</tr>
<tr>
<td>4Y &amp; UM</td>
<td>90 (75 from 4Y, 90 total)</td>
<td>30</td>
</tr>
<tr>
<td>2Y, 4Y, &amp; UM</td>
<td>90 (62 from 2Y, 75 from 2Y + 4Y, 90 total)</td>
<td>30</td>
</tr>
</tbody>
</table>

(not necessarily in this sequence)

Other Programs

GRADUATE PROGRAMS

The College offers a Master of Arts in Liberal Studies, a Master of Public Administration, a Master of Science in Applied and Computational Mathematics, a Master of Science in Environmental Science, a Master of Science in Psychology with tracks in Health Psychology and Clinical Health Psychology, and a Master of Public Policy. See the UM-Dearborn Graduate Catalog for admission requirements, complete program descriptions and a listing of graduate courses.

CERTIFICATES

The College offers six certificates: African and African American Studies (AAAS), Geographic Information Systems (GIS), Medical Sciences (MEDS), Public Relations (PR), Women’s and Gender Studies (WGST), and Writing (WRIT). Consult the program description in this Catalog for additional information and requirements.

Special Programs

HONORS PROGRAM

The College offers an Honors Program for students from all units of the campus who are highly motivated and qualified academically. The program provides them with an opportunity to broaden and enrich their undergraduate education by offering an alternate route for satisfying the course distribution requirements while retaining the concentration requirements. The program emphasizes general education grounded in the traditional liberal arts. It includes special honors courses, a tutorial and seminar, reduced class size, close student-professor relationships, and interaction with other honors students.

Students in the Honors Program participate in an interdisciplinary curriculum of the most stimulating courses on campus in a relaxed, intimate learning environment geared to heightening their perceptions and deepening their knowledge. The curriculum is organized to produce a cumulative effect: students who reach their junior year in the program share a common core of literature, language, and methodology upon which they can build. By their senior year, honors students have gained the skills needed for rigorous, independent critical thinking.

The Honors Program is a repository of "quality" education. This implies commitment from teachers, advisors, and students, a coherent and unified curriculum that moves toward specific goals, and a carefully monitored series of courses. It is understood that the curriculum is demanding, and that the program makes as few compromises as possible in order to maintain its integrity.
Special features of the Honors Program include:

1. A freshman seminar which focuses on a particular topic but emphasizes examination of method: critical analysis of both primary and secondary texts; historical, interpretive approaches; research techniques and comparison of how different disciplines pose questions of a wide variety of texts.

2. Four lower-division interdisciplinary honors courses, at least one per term during the first two years. Each course deals with the evolution and content of Western culture from the vantage points of several academic disciplines: anthropology, art, economics, history, literature, music, political science, psychology, sociology, and the sciences. The four courses provide honors students with a common body of knowledge, language, and literature. They foster critical thinking, help students gain a perspective on the traditions and problems of Western civilization, and equip them with a well-rounded background so that they may more intelligently construct their lives in the modern world. Honors students are also required to take six hours in non-Western culture chosen from a wide variety of courses.

3. The tutorial, a crucial part of the Honors Program, is one of its main features. Tutorials enroll between five and ten students. They create a sense of collegiality that is frequently lacking on a commuter campus. The tutorials provide an opportunity for intensive concentration, study, and discussion. In most cases a major writing assignment will be required.

Students are automatically qualified to apply to the Honors Program if they have a 3.5 high school GPA, have an ACT composite score of 25 or higher, score in the 90th percentile or higher in PSAT scores, or achieve a combined SAT score of at least 1150. Other incoming freshmen, transfer students, and students who did not take the Placement Examination at other universities. UM-Dearborn does not accept hours earned in composition courses at other institutions of higher education will be placed in an appropriate composition course based on their transfer credit and performance on the Composition Placement Examination, as determined by the Director of the Writing Program. Only courses judged equivalent to COMP 105 and 106 may be substituted for the required courses. Students are urged to take their composition courses at UM-Dearborn.

For information, contact the Honors Program Office at (313) 593-5183.

WRITING PROGRAM

The Writing Program offers introductory and intermediate courses and other academic support to all UM-Dearborn students in CASL, COB, CEHHS and CECS. The Writing Program oversees the UM-Dearborn Writing Center, the campus Writing Awards competition, and the Composition Placement Examination. One important aspect of the Program’s work is supporting innovative teaching approaches across the disciplines for improving students’ abilities with writing and research.

Writing Program courses include the first-year writing sequence, with special sections devoted to multi-media, community-based and cross-cultural writing, and intermediate courses focused on creative and expository writing and writing in professional settings. First-year writing courses at UM-Dearborn provide a basis for both upper-level writing classes and also the writing students will need to complete to fulfill requirements in other courses. Courses therefore support students as they learn to write effectively, think critically, and develop rhetorical awareness about print, visual, and digital texts, and to write for academic, civic and workplace audiences. Writing Program courses stress inquiry-based research, critical reflection, revision, collaboration, and active learning.

PLACEMENT INTO INTRODUCTORY WRITING COURSES

All UM-Dearborn students are required to complete six hours of composition in order to graduate. Most students fulfill this requirement by taking COMP 105 and 106 (Writing & Rhetoric I & II). Each entering student should make every effort to complete the composition sequence during his or her first year on campus, since it is designed to acquaint students with expectations and strategies of university writing. Placement in the appropriate introductory course is determined by the Composition Placement Examination (CPAS). No student may enroll in an introductory composition course before taking the Composition Placement Examination.

All students – first-time as well as transfers – must take the Composition Placement Examination, preferably at the time of enrollment or during the student’s first semester on campus. Transfer students who score below the COMP 105 level will be required to take COMP 227 (which carries degree credit) even if their previous composition courses have been accepted for transfer credit. Students who did not take the Placement Examination during the orientation session should contact the Orientation Office or Writing Program Office to schedule an examination.

Based on the results of the Placement Examination, students will be placed either into COMP 099, COMP 105 or COMP 106. Students taking COMP 099, which carries additive degree credit and does not satisfy any part of the six-hour composition requirement, must pass the course with a grade of C of better before enrolling in COMP 105. Students may submit a portfolio of written work to appeal a placement decision, but no degree credit is given for courses exempted via portfolio.

Students in the Honors Program fulfill their six-hour composition requirement by taking COMP 110 and COMP 220 (Honors Writing & Rhetoric I & II). Engineering students substitute COMP 270 (Technical Writing for Engineers) for COMP 106, taking the course during the second semester of their sophomore year. College of Business students take COMP 280 (Business Writing & Rhetoric) in place of COMP 106. Transfer students admitted with credit in composition from other institutions of higher education will be placed in an appropriate composition course based on their transfer credit and performance on the Composition Placement Examination, as determined by the Director of the Writing Program. Only courses judged equivalent to COMP 105 and 106 may be substituted for the required courses. Students are urged to take their composition courses at UM-Dearborn.

UM-Dearborn does not accept hours earned in composition through placement examinations at other universities.

For more information, contact the Writing Program office at (313) 593-5238.

FIRST YEAR SEMINARS

First Year Seminars are special classes designed for entering first-year students to ease the transition from high school to college. These are small, welcoming classes developed by dedicated UM-Dearborn faculty who have made a special commitment to helping students master important college skills. In a First Year Seminar, students find it much easier to get acquainted with college life and explore the university’s academic resources.

Each First Year Seminar benefits new students in the following ways:
• Exposure to exciting ideas on a special topic
• Linkage between the First Year Seminar and a related Composition course
• Special attention to college-level reading, writing, discussion and research skills
• Extra-curricular activities and opportunities, such as field trips, tours and projects
• Extra mentoring and support
• A ready-made peer group

For many students (especially in CASL), the First Year Seminar experience automatically fulfills two requirements: a required Composition course and a distribution requirement.

A few of the many seminar topics that have been developed include the following:

• “Car Culture”: the history of the automobile in American life and imagination
• “Fast Food Nation”: a look at the fast food industry through various lenses (economics, anthropology, sociology, environmental studies, politics, history and more)
• “To Infinity and Beyond”: an exploration of the concept of infinity using very creative learning techniques
• “Shakespeare on Stage, Page, & Screen”: this seminar incorporates films, texts and a trip to the Shakespeare Festival in Stratford, Ontario, to explore variations on Shakespeare plays based on different media, cultural contexts, and different artistic and ideological agendas.

All First Year Seminars are listed as Liberal Studies (LIBS) courses under “College-Wide Offerings” in the Schedule. For further information, contact the CASL Dean’s Office, 2002 CB, or view the First Year Seminar page on the CASL website: umd.umich.edu/673401.

COOPERATIVE EDUCATION PROGRAM

Cooperative Education in CASL is an academic program founded on UM-Dearborn’s commitment to “excellence in teaching and learning.” It promotes liberal arts learning and career/personal development through student participation in paid, professional employment. Expected learning outcomes include clarification of values, development of problem-solving and career-related skills, and enhancement of academic knowledge.

Students work one or more terms in part-time or full-time positions paying $8-15.00/hour. They also earn upper-level academic credit for their co-op experiences and attend a co-op seminar. To be eligible for the co-op program, students must be admitted to an undergraduate major in the college and must have completed 30 credit hours with a minimum 2.25 GPA. Transfer students must complete 12 credit hours at UM-Dearborn before they are eligible.

Students compete for open co-op positions offered by area employers. After being hired by a co-op employer, students register for co-op and are required to submit academic learning objectives and a critical evaluation essay for approval by the Faculty Director, who determines the awarding of credit. The Co-op Office reviews requests for student-arranged co-ops. Contact the Co-op Office in Room 1038 CB for more information.

CASL ONLINE: Online and Blended Courses

Regular credit-bearing courses are offered via online and blended formats to UM-Dearborn students (and guest students) who can benefit from the flexibility and convenience of online course delivery. Students who want to pursue a university education but have special constraints such as job demands, childcare or eldercare responsibilities, pregnancy or medical limitations may also find that online learning helps them stay on track. Online learning classes are taught by UM-Dearborn’s distinguished faculty and are equivalent in academic depth and rigor to face-to-face versions taught in the traditional classroom. New courses are added to the OL repertoire each year. A few courses are in blended format; that is, the classes meet on campus for one or two class periods and online for the remainder.

Regularly enrolled students may elect online learning courses as part of the registration process. Guest students must submit the Michigan Uniform Guest Application, available in our Admissions/Registrar’s offices or in the Registrar’s office of the student’s home institution, and complete the admissions process before registering for classes.

Online Learning courses usually require regular participation in online discussion groups established for the class. Required materials may be made available in various formats, including conventional textbooks and online resources, including video and/or audio recordings. Some online courses may require attendance on campus at an orientation session and/or for exams, though special proctoring arrangements can be made, especially for non-local students. CASL Online also offers the ONLINE Bachelor of General Studies (BGS) degree program. This program is designed exclusively for transfer students with associate degrees in any field from community colleges that have “Two plus Two” articulation agreements with UM-Dearborn. UM-Dearborn offers the upper-level component of the BGS degree for these students. In addition, some lower-division courses that fulfill UM-Dearborn distribution requirements or serve as prerequisites are also available via online learning.

For further information about the CASL Online program, the Online BGS, and currently offered courses, consult the program website: casl.umd.umich.edu/caslonline/ or the OL staff. The CASL Online program office is located in 1150 Social Sciences Building, (313) 593-1392, email caslonline@umd.umich.edu. The Director and the OL staff are available for program information, and general student support in online education.

INTERNSHIPS AND FIELD EXPERIENCES

In addition to the paid work experience offered in the cooperative education program, non-paying off-campus educational opportunities for academic credit are offered by various departments in the College. For specifics, see the course description for each discipline’s offering in Programs and Courses beginning on page 70.

Criminal Justice Studies Internship

Criminal justice internships are available through the disciplines of political science, psychology, sociology, and women’s and gender studies. Internships provide students with practical experience in law enforcement-related placements at the state, local, and federal levels of government and also in the non-profit sector. Placements are available through the Departments of Social and Behavioral Sciences. Internships vary from three credit hour programs to six credit hours. Students may elect CRJ 478 Social Work/Criminal Justice Internship; CRJ 479 Women’s Studies Internship; CRJ 485 Psychology Internship; or CRJ 494-495 Political Science Internship. For more information about internships, contact the Director of Criminal Justice Studies in the Department of Behavioral Sciences, (313) 593-5520; email: criminal_justice@umd.umich.edu
Economics Internship
The economics internship offers students field experiences with businesses, non-profit organizations and government agencies. The placement allows students to get hands-on experience applying the tools of economic analysis to specific job and project assignments. Student interns spend either eight or 16 hours per week in unpaid work at their placement site, for which they earn either three or six academic credits. Only three credit hours may be used to satisfy the concentration requirements in economics. All interns are assigned to an economics faculty advisor. This program is open to all declared economics majors, who, by the start of the internship, have completed at least two upper-level economics courses in addition to two of the following core courses: ECON 301, 302 and 305. Permission of the Internship Coordinator is required. To inquire, call the Economics Internship Faculty Coordinator in the Department of Natural Sciences at (313) 593-5277.

Environmental Studies Internship
The environmental studies internship, which is required of all environmental studies concentrators, involves students in a wide variety of positions with government organizations (Department of Environmental Quality, departments of health, city and county agencies), consulting firms, and non-governmental organizations as field assistants and researchers. Students work a prescribed number of hours per week as arranged by the advisor and employer, typically earning three credit hours. Written permission of instructor is required to participate. To inquire, contact the Department of Natural Sciences at (313) 593-5277.

Health Policies Studies Internship
In the health policies studies internship, students volunteer eight hours a week for a semester in a health care delivery setting, to develop an understanding of health care system issues and problems. An internship paper describes the setting and discusses the student's project and its relationship to an organizational or health system issue. Students may enroll for one semester or for two consecutive semesters. Permission of program director and senior standing are required to participate. To inquire, contact the Department of Behavioral Sciences at (313) 593-5520.

History and Humanities Internship
The history and humanities internship offers practical experience to students in art history, communication, English, foreign languages, history, humanities, music, and philosophy. Students develop job-entry experiences in humanities and history-related careers. The internship includes a required seminar. Although, in general, the internship is offered for elective credit, it may be used to satisfy the following concentration requirements: Three credit hours may be applied towards a Communication major/minor or toward an Art History/Museum Studies degree and six credit hours may be applied towards a Journalism concentration. For students with a foreign language focus, three credit hours may be used within the International Studies Support Studies component or toward the cognate requirement of the French or Hispanic Studies concentrations. Prerequisites are junior or senior standing. Students earn three to six credit hours per semester. The maximum total credit hours are 12. To inquire, contact the History/Humanities Internship Office, 3028 CB, (313) 593-5136.

Psychology Internship
Psychology internship placements offer work experiences in a wide variety of human services organizations. These include programs related to child abuse, criminal rehabilitation, crisis intervention, geriatrics, human resources, mental illness, organizational development, special education, substance abuse, and women's issues. Students spend six or 12 hours per week at their field placement and attend a weekly seminar involving training in listening and helping skills. Students may register for three or six credits. Prerequisites are PSYC 171 and permission of instructor. To inquire, contact the Department of Behavioral Sciences at (313) 593-5520.

Public Affairs Internship
The public affairs internship program allows students to participate in the political process through placements in a variety of governmental offices. Students in the local internship program work for state and local elected officials, law firms, and interest groups. Students in the Washington, D.C. program have worked in the White House, the Pentagon, and for Members of Congress. Students in the Ottawa, Canada program work in a Member of Parliament’s office for a period of five weeks. Admission is reserved primarily for qualified juniors and seniors of all majors. Six upper-level credits are granted for successful completion of either program. Scholarships are available. To inquire, contact the Department of Social Sciences at (313) 593-5096.

Sociology/Social Work Internship
The sociology/social work internship offers students the opportunity to work in social welfare agencies and/or human services organizations such as domestic violence shelters, criminal justice agencies, head start programs, substance abuse rehabilitation, gerontology, hospice, human resources, health care, urban planning, and so on. The emphasis in the field experience is on the social problems that bring clients to agencies and on the social contexts within which agencies deliver services. Students spend six to eight hours per week on site and two hours in a classroom seminar. Prerequisites are SOC 200 or SOC 201 and permission of instructor. Students may enroll for three to six credit hours. To inquire, contact the Department of Behavioral Sciences at (313) 593-5520.

Women's and Gender Studies Internship
The WGST internship offers students an opportunity to work in a variety of fields that address gender inequities and/or serve the needs of women and girls. These include, but are not limited to, adolescent services, domestic violence shelters, legal clinics, human resources, health care settings, advocacy organizations, and residential counseling settings. Students spent six to eight hours per week on-site and two hours in a classroom seminar. Prerequisites are WGST 303 or permission of instructor. To inquire, contact the WGST office, 2040 CB, (313) 593-1391.

WOMEN IN LEARNING AND LEADERSHIP (WILL)
The Women in Learning and Leadership (WILL) program is designed to develop the analytical abilities and skills of undergraduates and promote their will to be community leaders for gender equity. WILL allows students to connect knowledge gained in the classroom with learning experiences in the community by combining courses in Women’s and Gender Studies, co-curricular programming, a student leadership organization, and internship and co-op opportunities. The following are the main goals of the program:

- To encourage critical thinking, intellectual curiosity and active learning opportunities that empower women as leaders during and beyond college;
- to increase awareness of obstacles created by gender, ethnic and social class stratification, with attention to what those obstacles mean for students living in metropolitan Detroit, and to develop awareness of individual and collective strategies to address these obstacles;
to promote self-confidence, assertiveness, a realistic sense of efficacy and willingness to lead;
• to provide opportunities for students to explore their career and life choices, and to build a multicultural and co-generational community on campus that supports this learning and exploring;
• to develop ongoing networks of collaboration between community organizations, leaders, and students.

Requirements for WILL
Students accepted into WILL complete 4 courses in Women's and Gender Studies and an internship or co-op experience in a field of their choice. There are two required courses for the program: Introduction to Women’s and Gender Studies, and a Women, Leadership and Social Change class. For their two electives, students may choose from the wide variety of courses offered by the Women’s and Gender Studies program. In addition to fulfilling these curricular requirements, WILL students spend a minimum of 15 hours per semester engaged in co-curricular activities related to gender equity and community building. Among their other activities, the WILL student group engages in volunteer opportunities with social service agencies in metropolitan Detroit. In addition, they have the opportunity to meet with locally and nationally known gender equity leaders for casual “fireside chats” and are offered annual training seminars by local women leaders. They organize speaker and film series on topics such as leadership for global gender justice, eating disorders and body image, and violence awareness on campus. They also run an innovative and successful mentoring program for middle school girls in Southwest Detroit. WILL students’ internship placements have allowed them to work with women in the criminal justice system, in programs for at-risk youth, in an oral history project interviewing Arab-American women, and in a variety of positions in legal, medical, business and education fields with women leaders as mentors.

The program recruits in April every academic year for acceptance into the program the following Fall term. Students accepted into the program have a minimum of a 3.0 grade point average, demonstrated leadership ability, and an interest in fostering gender equity.

For more information, contact the Director of WILL at (313) 593-1391 or visit 2040 CB.

JAPAN CENTER FOR MICHIGAN UNIVERSITIES
Since 1989, the fifteen Michigan public universities have operated a unique program in Japanese language and culture in our sister state in Japan, the Shiga prefecture. The Japan Center for Michigan Universities is in Hikone, a beautiful, medium-sized, non-westernized city in central Japan. The $15 million facility, built by the Shiga government, includes classrooms, offices, and apartments with cooking facilities for student occupancy; home stays, of varying duration, may also be arranged. The full academic program runs from September through the end of April; students may also select a one-semester program, or the Summer Intensive Program in the Japanese language. UM-Dearborn students receive 26 hours of credit for UM-Dearborn courses in Japanese language (see course descriptions under Japanese in this Catalog for the following: JPN 128-129, 178-225, or 228-229), Japanese Culture and Society (JPN 395, 396), and two other courses taught by visiting professors. These have included Japanese art and painting, Japanese technology and business, energy and environment in Japan, modern Japanese history, and mass media.

For current information on program fees and housing, visit the website: isp.msu.edu/JCMU/. Applicants need not know Japanese, but they should have studied another foreign language and have had some foreign travel experience. They must have sophomore standing by the end of Winter term and a 2.5 or higher GPA. Students should contact the International Office, 2136 UC, (313) 593-6600, for further information.

STUDY ABROAD
Students interested in other study abroad programs should consult faculty in Modern and Classical Languages, or their major advisor, or the International Office in 2136 UC for additional information.

Special Centers, Facilities and Services

OFFICE OF ADVISING AND STUDENT RECORDS
The Office of Advising and Student Records helps students make informed decisions about their course of study and the liberal arts. To provide this help, the Office offers students current and accurate information regarding CASL academic policies and procedures, coordinates academic advising between students and faculty advisors, provides necessary College forms and materials, and reviews students’ academic progress and performance at specified intervals.

The Office offers a systematic program of guidance and advising that attempts to support students from registration through graduation. Advising occurs in many forms and at various levels. For new students, an orientation program is available for academic testing and advising. The initial advising is done by professional staff and faculty who work through the Office.

The Office also provides expert academic help of a general nature. Its staff is specifically trained to work with the undecided student. It also oversees the AB and BS degree programs in Liberal Studies and the BGS degree program. Traditional majors also have faculty advisors. A list of these advisors is available in the Office, 1039 CB, (313) 593-5293, and online at casl-advising@umich.edu.

UNIVERSITY OF MICHIGAN-DEARBORN WRITING CENTER
The University Writing Center, staffed by experienced student peer consultants under the supervision of full-time faculty in composition, provides support for all UM-Dearborn students wishing to improve their writing. Students needing regular one-on-one help in developing basic writing skills, as well as more advanced students wishing to improve their writing, will find the Writing Center useful.

The Writing Center is open five days a week during Fall and Winter terms and on a more limited basis during the summer term. It is strongly recommended that students make an appointment should they wish to work with a peer consultant. The center is equipped with personal computers and software for student use including word processing software, grammar programs and Internet access and research. For further information, contact the Writing Program Office, 3018 CB, or telephone (313) 593-5238. The center is located in 3035 CB with smaller satellite locations around campus. The center tries to accommodate walk-ins but prefers students make appointments online at http://casl.umd.umich.edu/writ_center/.
CENTER FOR ARAB AMERICAN STUDIES
The Center for Arab American Studies focuses on scholarship, research, and engagement with the Arab-American community in Dearborn and Metropolitan Detroit. Faculty in Arab American Studies are actively engaged in research and scholarship on current issues facing Arab Americans as well as Arab American history and culture. As teachers, they seek to help all students understand the role of Arabs in American society, the role of America in Arab society, and the vibrant interplay between them. For additional information contact the Center in Room 1080 SSB or call (313) 593-5293.

CENTER FOR ARMENIAN RESEARCH
The Armenian Research Center (ARC) was established for the documentation and the publication of materials in the field of Armenian studies and affairs. The ARC accomplishes this work in a variety of ways. It provides access to a computerized database of books, periodical articles, audiovisual material, and other items concerning Armenians. This database is gradually also becoming accessible through the on line catalog of the Mardigian Library. The ARC also regularly publishes scholarly books on Armenian topics. It supports both academic and public outreach by participating in forums, sponsoring conferences, exhibitions, public lectures and answering questions from scholars, students and the public media. Finally, the ARC sponsors and supports the teaching of Armenian language instruction courses on the University of Michigan, Dearborn campus. For additional information call (313)-593-5181.

CENTER FOR MATHEMATICS EDUCATION
The Center for Mathematics Education is dedicated to improving the quality of teacher preparation for prospective teachers and to making continuous professional development available for current teachers. The goal is to strengthen the teaching of mathematics and improve student learning. The professional development programs offered by the Center seek to deepen teachers’ understanding of the mathematics they teach and emphasize best teaching practices through the study and use of current research and standards-based curriculum resources. These professional development activities are offered at school district sites and at regional intermediate school districts, and carry at least 3 SB-CEU credits. It is also possible for classroom teachers to enroll for graduate credit. These credits can be applied towards the degree requirements for the Specialty in Middle Grades Mathematics program that is part of the College of Education, Health, and Human Services’ Master of Arts in Education degree. Additional information can be obtained at umd.umich.edu/casl/math/MathEd.

CENTER FOR THE STUDY OF RELIGION AND SOCIETY
Established in 2001, the Center for the Study of Religion and Society (CSRS) provides a focus for interdisciplinary scholarly research and teaching on religion and its relationship to American society. It is home to four interrelated programs: the interdisciplinary minor in Religious Studies; the Worldviews Seminar; the Pluralism Project at UM-Dearborn; and the Metropolitan Detroit Digital Music Archive of religious music, chant, and recitation. The Center sponsors lectures and colloquia on campus and is a link between the university and area religious centers and inter-religious organizations. CSRS is located in Room 2038 CB. Contact the Center staff at (313) 583-6329 or csrs_ra@umich.edu.

MATHEMATICS LEARNING CENTER (MLC)
The Department of Mathematics and Statistics supports a peer tutoring program for UM-Dearborn students needing assistance with their work in pre-calculus, calculus, differential equations, linear algebra, statistics, and mathematics education courses. Peer tutors, who are carefully vetted, trained, and supervised by the Director of the Center, are available during posted hours throughout the week. Computer tutorials and videos are also available to assist students in their preparation for the Mathematics Placement Exam and in certain mathematics courses. Please call the MLC (313) 583-6351 or visit our website at umd.umich.edu/casl/math for a current list of programs available for student support. The MLC is located in Room 2076 CB. The department provides auxiliary tutorial support for developmental algebra courses (MATH 080 and 090). Instructors for these courses will have information for students regarding the tutoring hours and location at the beginning of each semester.

SCIENCE LEARNING CENTER
The Department of Natural Sciences operates a Science Learning Center (SLC) for students enrolled in a variety of science courses. The SLC program ensures that all science students have adequate preparation for high achievement in science by providing self-paced, individualized instruction in essential mathematical, conceptual, and laboratory skills. Instructional modules are presented in one of several formats, including printed material and digital or multimedia tutorials that may be accompanied by specific laboratory instruments. All instructional modules are available online at casl.umich.edu/index.php?id=685031. Mastery of the subject matter is assessed by a short post test that is administered in the SLC. Students are encouraged to make advance reservations for post tests for instrument-based modules. Signup sheets are available in the SLC which is located in Room 1126 CW. It is open Monday through Friday during all academic terms. Current hours of operation are listed on the SLC website.

SLC staff also manage a Supplemental Instruction (SI) Program for students in the natural sciences. Supplemental instruction is an academic assistance program that utilizes peer-assisted study sessions. The SI sessions are regularly-scheduled informal review sessions in which students compare their class notes, discuss assigned readings, practice problem solving, develop organizational tools, and predict test items. The participants learn how to integrate course content and study skills while working together. The sessions are facilitated by “SI leaders”, students who have previously taken the courses and done well in them. The SI leaders also attend all the lectures, take notes, and are model students. The main purpose of this program is to improve students’ grades and increase student retention and graduation rates.

Policies And Procedures
For complete information on current policies and procedures, contact the Office of Advising and Student Records, Room 1039 CB, (313) 593-5293.

Academic Procedures

DECLARING A MAJOR
Students are required to declare a major formally and officially by the time they have earned 60 credit hours. A student who does not comply with this policy is placed on registration hold.
As a result, the student will not be allowed to register for the next term until a major has been declared.

**SENIOR DEGREE AUDITS**

A senior audit gives the student a list of requirements remaining to be fulfilled for graduation. During the term in which a student will complete 85 credit hours, an email will be sent from the Office of Advising and Student Records that a senior audit is about to be prepared. The student will be asked to confirm his or her major and respond to the email for the audit to be completed. When it is done, the student will be notified and instructed to schedule an advising appointment, during which the audit will be reviewed. If a student fails to respond to the email, the senior audit may be requested at a later date. A final audit will be conducted automatically for students who have applied for graduation and are on the Degree Candidate List.

**DROPPING AND ADDING COURSES**

Changes in course elections, including dropping or adding a course, and substituting another course for one already elected, may be made during the official "drop/add period." To make a change in course election, a student may change open courses on line via UM-Dearborn Connect during regular registration periods and during the first two weeks of a full term or the first week of a half-term.

Students also have the option of obtaining an Add/Drop Form from the CASL Office of Advising and Student Records, Room 1039 CB, with faculty signatures, if required, and submit it to the Enrollment Services Counter (1169 UC) by the established Add or Drop deadline. A limited number of classes require faculy permission to add after one week in a full-term and two days in a half-term.

Courses may be selectively (drop one or more course, but stay enrolled in at least one course) dropped through the ninth week of a full term or the fourth week of a half-term, but a W notation will be entered on the transcript. A student may completely withdraw from any semester through the official last day of classes for that particular semester. Consult Enrollment Services (1169 UC; 313-583-6500) for more information about exact dates, signature requirements, and fee assessments.

**ELECTING MORE THAN 18 CREDIT HOURS**

Students must have written permission from the Office of Advising and Student Records to elect more than 18 credit hours a term. Students whose GPA is below 3.00 are not allowed to elect more than the normal maximum of 18 hours.

**COURSEWORK AT OTHER INSTITUTIONS**

After a student first enrolls in a degree program at UM-Dearborn, he or she may not ordinarily transfer credits from a course taken at another college or university to apply to the requirements of the UM-Dearborn degree. Exceptions to this policy require written permission from the CASL Office of Advising and Student Records prior to registration for the course. Permission for transfer of credit from a non-UM-Dearborn institution is granted only for demonstrably extraordinary and urgent circumstances. Courses that are in progress at the time of admission and are so reported in writing to the Office of Admissions and Orientation may be transferred.

CASL students are encouraged to study abroad. In order for the credit earned overseas to be transferred back, the student must 1) receive a pre-approval of coursework from the CASL Office of Advising and Student Records before departing for the program, and 2) bring back an official transcript from an accredited institution for the work completed. In general, the pre-approval of coursework can only grant the transferrable credit be counted as either lower level or upper level elective credit. In order for the credit to be counted toward a major/minor, the student needs to bring back a course syllabus and all graded written work for a full assessment by the corresponding discipline representative.

**CREDIT FOR CO-OP, INDEPENDENT STUDY AND OTHER EXPERIENTIAL COURSES**

In addition to the Cooperative Education Program with its paid work experience, independent studies, independent research, internships, and field experience courses are offered by various departments.

No more than 18 hours of credit may be counted toward graduation for cooperative education, independent/directed research, independent/directed studies, internships, and field experiences. There may be more specific limits on the number of independent study, reading, and research courses that may be applied to a major; see the faculty advisor in the major area for more specifics on this matter. Credit for laboratory/off-campus experiences must be arranged prior to the experiences; credits may not be arranged retroactively, after the experiences are completed.

**REGISTERING AFTER WITHDRAWALS**

A CASL student who first registers and then totally withdraws from two consecutive terms may be placed on academic probation and may not register without the explicit written permission of the Associate Dean or the Associate Dean's representative.

A student who is required to withdraw from one academic unit may not be admitted to another UM-Dearborn academic unit within the same term that the withdrawal action was taken.

**PETITIONS**

A petition is an official written request by the student to review information related to the student's academic record or to ask for approval of exceptions to policies or procedures. Petition forms are available in the CASL Office of Advising and Student Records, and must be filed in that office.

**Grading System**

**CASL LETTER GRADES AND QUALITY POINTS**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.00</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.70</td>
</tr>
<tr>
<td>B+</td>
<td>3.40</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.70</td>
</tr>
<tr>
<td>C+</td>
<td>2.40</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.70</td>
</tr>
<tr>
<td>D+</td>
<td>1.40</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>0.70</td>
</tr>
</tbody>
</table>

(Minimum passing grade)
Grade Notations

The following notations may appear on a transcript to describe special situations in regard to a course.

NC No Credit. No honor points. Not computed in the grade point average. Used only in specially approved courses that are graded A, B, C, No Credit.

I Incomplete. No honor points. A student who cannot complete the work of a course before the end of the term must request permission to receive an incomplete grade. A contract form, obtained from the CASL Office of Advising and Student Records, Room 1039 CB, must be discussed with and approved by the instructor before the end of the term. If the work is not completed within either four months, or an earlier deadline specified by the instructor, the grade will be converted to an E. Incompletes may not be completed after graduation. An I notation will remain on the transcript, followed by the letter grade earned. In cases where an I is granted, but no contract is submitted, an IE will appear on the transcript.

X Absent from Final Examination. No honor points. An instructor may assign an X if a student has completed all the required coursework except for the final examination. The final exam must be taken within five weeks of the end of the term. If the exam is not completed in the required time frame, an E grade will be recorded. The X notation will remain on the transcript, followed by the letter grade earned. A course with a X mark may not be completed after graduation.

Y Course extended beyond term end. No credit. No honor points. Used only for courses that have been specially designed and approved to extend beyond the end of one term. A course with a Y mark may not be completed after graduation. If such a course is not completed, the Y will be converted to an E upon graduation.

NR Grade Not Reported. No honor points. Student should consult the Registrar immediately.

W Official Withdrawal. No credit. No honor points. Not computed in the grade point average. Students who selectively drop a course or withdraw from all courses for a term prior to the deadline for selective drops and/or withdrawals will receive for these courses the W notation. This notation may not be removed from the transcript.

S/E. Used only for specially approved courses. If a student passes, an S (satisfactory) is awarded. It is not computed into the grade point average. If a student does not pass, an E is awarded. If a student stops attending, without officially dropping, a UE is awarded. Both the E and the UE are computed in the GPA as failing grades.

P/F Pass/Fail Option. No honor points. A student must elect to take a course under the Pass/Fail option. The instructor reports a letter grade (A through E), except in courses where the notation No Credit is acceptable. Enrollment Services converts the student’s letter grade according to the following procedure:

1. Grades A through C are posted on a transcript as P (Pass); counts toward residency requirement and credit hours toward graduation.
2. Grades D+ through E are posted on a transcript as F (Fail); no degree credit is earned.
3. A grade of UE is not converted to an F and is computed in the GPA the same as an E.

Neither a P nor an F is computed in the grade point average. This grading option applies only to courses offered by CASL. Students enrolled in degree programs in other units should check the pass/fail regulations in those units. The option is subject to the following conditions:

The pass/fail option is open only to students who are not on academic probation.

Courses taken under the pass/fail option may not be used to fulfill requirements for majors, minors, areas of focus, cognates, and/or teacher certification.

Students in the Honors Program must take all Honors Program requirements (including distribution) for a grade.

Courses taken under the pass/fail option must be specified on the registration form or added as such within the usual add period. Such courses may be dropped within the usual drop period.

1. Changing from the pass/fail option to a letter grade or vice versa is not permitted after the first two weeks of a full term or after the first week of a half term.
2. A student is limited to, at most, four courses taken under the pass/fail option. Courses specifically designated as "S/E only" are not counted in this limitation.

UE Unearned Fail. This grade is assigned to any student who has never attended, or stopped attending class during the semester and did not officially drop. It is computed in the GPA the same as an E.

VI Visitor-Official Audit. No credit. No honor points. Not computed into the grade point average. An official audit, or visitor status, allows a student to attend a course but not elect it for credit. The VI notation appears on the transcript. Regular tuition fees are assessed.

CHANGING GRADES

The grade that an instructor records on the final grade sheet which appears on the student’s subsequent transcript based on the instructor’s official evaluation of all of a student’s performance and work completed by the end of the term is considered final. Recognizing grading mistakes is permitted. However, an instructor is only allowed to change a grade within the four month period after the end of the term in which the course was taken. CASL instructors must complete a Supplementary Grade Report form and submit it to the CASL Office of Advising and Student Records, Room 1039 CB. A grade change after the four-month period in which the course was taken is not permitted except for extenuating circumstances which requires an approval from the CASL Dean’s Office.

TERM AND CUMULATIVE GRADE POINT AVERAGE (GPA)

The cumulative GPA is determined by dividing the total number of credit hours into the total number of quality points earned. The term GPA is determined by dividing the number of credit hours earned during a term into the number of quality points earned during the same term.

The number of credit hours excludes 1) courses in which a student received an NC; 2) courses taken on a pass/fail basis in which a P or an F is recorded; 3) S/E graded courses in which the student receives an S; 4) additive credit courses.

Grades associated with transferred courses are neither recorded nor used in computing the cumulative GPA. Past grades, however, may be reviewed for admission to specific units within UM-Dearborn.
Effective Fall 2005, for any course repeated in Fall 2005, or thereafter, grades earned in all attempts of a course will appear on the transcript; however, only the most recently earned grade will be reflected in the cumulative GPA. Some restrictions apply. For more details, please see a CASL advisor.

Note: Prior to Fall 2005, grades earned in all attempts of a course appeared on the transcript and were reflected in the cumulative GPA.

### Academic Honors

#### DEAN’S LIST

A student is honored by inclusion in the Dean’s List if he or she meets two conditions: (1) has completed during the term at least 12 credit hours of graded coursework toward degree, and (2) has achieved a 3.50 or better term GPA. The Dean’s List is compiled three times a year, after the Fall, Winter, and Summer terms. Students who have I, X, NC, or Y notations are not eligible to be included. Students with Academic Sanctions against them are not eligible. Upon completion of all courses for the term, eligible students will be contacted via their UM-D email account with an official Dean’s List letter by the CASL Office of Advising and Student Records.

A second Dean’s List is generated for part-time students who have enrolled and completed 12 or more credit hours of graded (A-E) coursework toward degree in the Fall and Winter semesters (of a given academic year) combined, and earned a minimum 3.50 GPA in each term.

Eligibility is based exclusively upon coursework completed at UM-Dearborn. The list is posted prominently in a display case in the CASL Building.

For information about other institution-wide honors and awards, please consult the General Information section in this Catalog.

### Academic Performance

The goal of the College is to assist its students in making satisfactory and expeditious progress toward their degrees. In order to be graduated, the student must achieve not only a cumulative GPA of 2.00 or better, but also a 2.00 or better in his/her major, cognates, minor, or each area of focus. Steady achievement at this level is not always possible. From time to time students might perform at a level below 2.00 and still be permitted to register and thus to continue to make progress toward their degrees. In such cases, the scholastic records of all students are examined at the end of each term during which they took courses.

#### PROBATION

If a student's cumulative GPA should fall below 2.00 at the end of a term, the student will be placed on "probation. If the student's cumulative GPA reaches 2.00 or better at the end of this probationary term, the student is removed from probation. On the other hand, if the cumulative GPA is even lower at the end of the probationary term, the student would normally move to “required to withdraw” (RW) status and would not be allowed to reregister for the duration of at least one year. A student with a cumulative GPA substantially below 2.00 may be required to demonstrate his or her potential for readmission. Finally, if the cumulative GPA should show significant improvement but not yet reach 2.00 at the end of the probationary term, the student may be placed in "probation continued" status for one term.

#### PROBATION CONTINUED

A student in "probation continued" status has an academic hold placed on registration. This means that the student may not register again until all grades for the probation continued term have been recorded and reviewed favorably. If the student on probation continued achieves a cumulative GPA of 2.00 or better at the end of this term, the student is removed from the academic hold and from probation. If the student should fail to achieve a cumulative GPA of 2.00 or better, the student would normally be required to withdraw (RW) and would not be permitted to register for the duration of at least one year. A student with a cumulative GPA substantially below 2.00 may be required to demonstrate his or her potential for readmission. Normally, a student may be in the probation-continued category for only one regular term.

Further information may be obtained from the CASL Office of Advising and Student Records, Room 1039 CB.

### Code of Academic Conduct

In order to maintain the high academic standards subscribed to by UM-Dearborn, the College has adopted a Code of Academic Conduct that defines academic misconduct and outlines report and appeals procedures.

The College, like all communities, functions best when its members treat one another with honesty, fairness, respect, and trust. Therefore, an individual should realize that deception for the purpose of individual gain is an offense against the community. Such dishonesty includes:

#### PLAGIARISM

Submitting a piece of work (for example, an essay, research paper, assignment, laboratory report) which in part or in whole is not entirely the student's own work without attributing those same portions to their correct source(s)

#### CHEATING

Using unauthorized notes, or study aids, or information from another student or student's paper on an examination; altering graded work after it has been returned, then submitting the work for re-grading; and allowing another person to do one's work and to submit the work under one's own name.

#### FABRICATION

Presenting data in a piece of work which were not gathered in accordance with the guidelines defining the appropriate methods for collecting or generating data and failing to include a substantially accurate account of the method by which the data were gathered or collected.

#### AIDING AND ABETTING DISHONESTY

Altering documents affecting academic records; forging signatures of authorization or falsifying information on an official document, election form, grade report, letter of permission, petition, or any document designed to meet or exempt a student from an established CASL or University academic regulation.
A faculty member has the responsibility to inform the students that academic dishonesty is not acceptable. Students are responsible for discovering the sort of conduct that would be viewed as unacceptable by reviewing the Code of Academic Conduct and by asking individual instructors for the standards of their respective disciplines.

REPORT

Upon detecting a violation of academic integrity, a CASL faculty member is required to report it under all circumstances. The reports help CASL and the other units on campus to track repeat offenders of academic integrity who should be punished according to guidelines approved in each unit.

To file a report of a violation involving a CASL course, the faculty member needs to fill out a CASL Academic Integrity Violation Report Form (the "Report") and files it with the CASL Associate Dean for Curriculum and Enrollment Management. The faculty member is also required to give a copy of the Report to the involved student.

RIGHTS OF PARTIES

A faculty member shall have the right to assign penalties, including lowered grades for coursework or an entire course, for any violation of the CASL Code of Academic Conduct.

Upon receiving a copy of the Report, the student has seven business days to make a decision on whether to appeal it or not. If the student decides to appeal, he or she should notify the CASL Associate Dean for Curriculum and Enrollment Management within seven business days after receiving a copy of the Report.

APPEAL

After receiving an official notification for an appeal to a Report, the CASL Associate Dean for Curriculum and Enrollment Management works with the student to follow CASL approved and established appeal procedures to conduct the appeal.

Policy Changes

All policies, procedures, and requirements are subject to change. These changes do not always coincide with the printing of a new Catalog. The most current information regarding CASL programs may be obtained from the CASL Office of Advising and Student Records, Room 1039 CB.

Programs and Course Offerings

Directory

CASL offers 32 degree programs and about a thousand courses. To help the reader find the program or course of interest, a directory is provided below. The following symbols are used to indicate the program type: C denotes a Certificate Program; Ma denotes a Major; Mi denotes a Minor and an area of focus; and NM denotes Not a Major or Minor. Changes may occur in the status of a program. Please check with the Office of Advising and Student Records, Room 1039 CB, or the relevant department office.
Journalism and Screen NM Language, Culture, and Studies Communication
Latin NM Language, Culture, and Communication
Law and Society Mi College wide Studies
Liberal Studies Ma College wide Leadership and Communication in Organizations
Linguistics Mi Language, Culture, and Communication
Mathematics Ma, Mi College wide Languages: Armenian, Greek, Swedish
Medieval and Renaissance Mi Mathematics Studies
Microbiology Ma, Mi Natural Sciences
Modern and Classical NM Language, Culture, and Languages: Armenian, Greek, Swedish Communication
Music Mi Literature, Philosophy, and the Arts
Music, Applied NM Literature, Philosophy, and the Arts
Music History NM Literature, Philosophy, and the Arts
Music Theory NM Literature, Philosophy, and the Arts
Natural Sciences NM Natural Sciences
Organizational Change Mi Literature, Philosophy, and the Arts Philosophy
Physics Ma, Mi Natural Sciences Political Science Ma, Mi Social Sciences
Psychology Ma, Mi Behavioral Sciences Public Relations C Language, Culture, and Communication
Religious Studies Mi College wide Science and Technology Studies
Mi College wide
Social Science Research Mi College wide Methodology
Social Studies Ma Social Sciences Society and Technological Change
Sociology Ma, Mi Behavioral Sciences
Spanish (see Hispanic NM Language, Culture, and Studies) Communication
Speech NM Language, Culture, and Communication
Swedish NM Language, Culture, and Communication
Urban and regional Studies Ma, Mi Social Sciences Women's and Gender Studies
Ma, Mi College wide
Writing C Language, Culture, and Communication

Discipline and Course Number. Courses are numbered in accordance with a University-wide numbering system: courses numbered 100 to 199 and 1000 to 1999 are introductory, courses 200 to 299 and 2000 to 2999 are intermediate, and courses 300 to 499 and 3000 to 4999 are advanced (upper-level)

Course Title. The bold face course title follows the course number.

Credit Hours. The number of credit hours will appear below the course title.

Prerequisites. Prerequisites to the course appear after the credit hours. They should be completed before the course is elected. An asterisk (*) denotes that course may be taken concurrently.

Programs and Courses

African and African American Studies

African and American Studies (AAAS) is an interdisciplinary program housed in the College of Arts, Sciences, and Letters at the UM-Dearborn. The program offers a flexible, challenging and stimulating course of studies for students who wish to pursue a major that will allow them to:

- Acquire knowledge of the history and cultural legacies of Africans and African Americans throughout the Diaspora.
- Ground themselves in the intellectual contributions of major African and African American scholars, political leaders, and artists.
- Gain informed perspectives on crucial issues confronting African and American communities throughout the world.
- Refine their skills in analysis, discourse, and writing.
- Apply their university learning as knowledgeable, engaged members of their home communities.

The Bachelor’s Degree in African and American Studies offers students a working knowledge of the history of African Americans in the United States, the cultural continuities in philosophy, religion and the arts linking African Americans to the African continent, as well as the critical social, political and developmental issues facing African communities on the continent and throughout the diaspora. Students will have a grasp of the critical movements for change in African and American history, as well as the contributions of outstanding political leaders, intellectuals and artists. Knowledge of the struggle of African and African descendants throughout the diaspora for greater human rights and a higher quality of life is a central feature of the major. These pedagogical objectives are facilitated by a commitment to interdisciplinary scholarship and approaches that emphasize the value of an internationalist perspective. The major will consist of 30 credit hours, 24 of which must be at the upper level. This course of study prepares students to pursue a wide spectrum of professional studies, including law, social work, K-12 education, and civic leadership, or to pursue the doctorate degree for a career in college level teaching and research.

Many of the courses offered in the African and American Studies Program are cross listed with other disciplines, such as Anthropology, Communications, Economics, English, History, Political Science, Psychology and Sociology.

MAJOR REQUIREMENTS
Please see the Program Director for information regarding requirements for the major.
MINOR OR BGS/LIBS AREA OF FOCUS REQUIREMENTS

To fulfill a minor or BGS/LIBS area of focus in African and African American Studies, a student must complete 18 credit hours of coursework in the program as outlined below.

Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAAS 275</td>
<td>Introduction to Africana Studies</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 239</td>
<td>Intro to Lit: African American</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 316</td>
<td>African American History</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 320</td>
<td>African-American Music History</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 315</td>
<td>African American Studies</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 333</td>
<td>African American Studies</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 371</td>
<td>African American Studies</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 385</td>
<td>African American Studies</td>
<td>3 hrs</td>
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<tr>
<td>AAAS 389</td>
<td>African American Studies</td>
<td>3 hrs</td>
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<td>AAAS 449</td>
<td>African American Studies</td>
<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 469</td>
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<td>3 hrs</td>
</tr>
<tr>
<td>AAAS 470</td>
<td>African American Studies</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

*Note: The thesis is optional and can be used to fulfill 3 hrs of the 300/400; 3000/4000 level course requirement.

Each term, AAAS offers a wide variety of 300/3000 and 400/4000 level courses that are designed to fulfill the core requirements of the AAAS minor. See the listing of AAAS course offerings below. Successful completion of the program requires that a student complete at least six of the required 15 credit hours in courses that are exclusively African and African-American in content (AAAS 305, 316, 333, 345, 368, 371, 385, 389, 449, 469, 470).

Students pursuing a minor or focus area in AAAS may choose to complete their coursework with a final thesis project (AAAS 498) that reflects particular interests developed during their course of study. The thesis option can be used to fulfill three hours of the required 15 hours of upper-level coursework. The AAAS thesis project will be completed under the direction of a faculty member whose scholarly interests are compatible with the research interests of the student.

Courses from Other Disciplines

Occasionally, other disciplines may offer courses relevant to the AAAS minor. In recent years, such courses have included: ENGL 390 Post-Colonial Literature, HIST 390 New World Cultures, and the SOC 391 Black Church Experience. With the approval of the AAAS advisor, such upper-level courses may be accepted as credit toward the AAAS minor.

For more information about the African and African American Studies program, please contact the CASL College Wide Programs Coordinator in 2036 CB, 313-593-4925.

CERTIFICATE IN AFRICAN AND AFRICAN AMERICAN STUDIES

Students completing the requirements for the minor may also obtain a certificate in AAAS, which provides students with evidence of specialization that can serve to complement other career or personal goals. Students who already have a bachelor’s degree may also earn a certificate to complement their undergraduate training. For additional information, contact the Office of the Dean, 2002 CB, (313) 593-5490.
A study of African American Music History from its African origins through the present. An understanding of the broad cultural, political, social, economic and media forces that have affected African Americans, their music and history- and in turn, the many important ways that African American music has influenced culture. Course examines multiple genre of music including classical, spiritual, jazz, blues and rap.

**AAAS 322  Psychology of Prejudice**  
3.000 Credits  
Prerequisites: PSYC 170 or 171  

A consideration of ethnic (including racial, sexual, and religious) prejudice from the psychological point of view, focusing on the mind of both the oppressor and the oppressed. (AY).

**AAAS 325  Econ of Poverty/Discrimination**  
3.000 Credits  
Prerequisites: ECON 201 and ECON 202  

An analysis of the economic aspects of poverty and discrimination. Emphasis on the theoretical economic causes of poverty and the economic bases for discriminating behavior, the impact of poverty and discrimination on individuals and society, and the effect of reform policies on the two problems. (AY).

**AAAS 333  Intro to Gospel Music**  
3.000 Credits  

This course explores the history and aesthetics of Black sacred music within cultural context. Major figures (Thomas A. Dorsey, Mahalia Jackson, The Winans Family, Kirk Franklin), periods (slavery, Great Migration, Civil Rights movement), and styles (folk and arranged Negro spirituals, congregational songs, and gospel songs - traditional to contemporary) will be studied through recordings, videos, films, and at least one field experience. Underlying the course is the theory (Mellonee Burnim and Pearl Williams-Jones) that gospel music is an expression of African American culture that fuses both African and European elements into a unique whole. (OC).

**AAAS 340  Race and Evolution**  
3.000 Credits  
Prerequisites: ANTH 101  

An evolutionary survey of the biological differences among human populations in response to such factors as climate, culture, disease, nutrition and urbanization. The meaning of racial variation is discussed in terms of adaptation to environmental stress. "Race" is rejected, racism is discussed. (YR).

**AAAS 345  West Africa Since 1800**  
3.000 Credits  

A history of the West African peoples since 1800, which focuses on their unique cultural heritage. Themes include: West Africa before the advent of alien domination, the European Conquest, West Africa under the Colonial regimes, and the liquidation of colonial rule and the reassertion of West African independence. (AY).

**AAAS 3634  History of Islam in the US**  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  

This course traces the long history of Islam and of Muslims in the United States (1730s-present), paying careful attention to the interaction among Muslims across the dividing lines of race, gender, immigrant generations, sect, political orientation, and class, and between Muslims and other Americans.

**AAAS 368  Black Exp in U.S.-1865-Present**  
3.000 Credits  

The history of Blacks in America is traced from the Reconstruction era and the rise of Jim Crow segregation to the Civil Rights movement of the 1960's and the current period. Special attention is paid to the migration of blacks to the north and the social-economic situation which they encountered there. Specific topics to be addressed include formation of the NAACP. (AY).

**AAAS 369  Civil Rights Movement in Amer**  
3.000 Credits  

A survey of race relations and civil rights activities from late 19th century to the present. The principal focus, however, is on the period since World War II, especially on the mass-based civil rights movement (1955-1965) and the various policy debates and initiatives of the past thirty years, most notably affirmative action and busing. We also examine critiques of non-violence and integrationism. (AY).

**AAAS 371  African Exper in the Americas**  
3.000 Credits  

The course is a survey of African populations and cultures from 1500 to the present throughout the Americas. The focus of the course is on the Caribbean and Latin American contexts of these populations, but comparisons to North America will be made. Topics include the slavery, the relationship between Africans and indigenous populations, religions, politics, music, and questions of race and ethnicity. Readings will include ethnographic description, history, biography and fiction. (YR).

**AAAS 385  Black Cinema**  
3.000 Credits  

The course will examine selected films from African American and African film traditions in order to analyze how their cultural production is responsive to the conditions of social oppression, economic under-development, and neo-colonialism. How film traditions define "Black aesthetics" will also be discussed. (AY).

**AAAS 388  W. African Music: Trad.&Glob.**  
3.000 Credits  
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or AAAS 106 or AAAS 275 or HUM 100 or HUM 270  

West African popular music contains a unique mixture of African, Cuban, European and American influences. With the advent of radio and recording, music that was once locally based is now part of a national and international popular music industry. This course offers an overview of modern West African music, both traditional and popular. The course begins with an introduction to traditional West African instruments and musical genres. Next, there is an exploration of the fusion of traditional African styles with European, Cuban and American styles during and after the colonial era. The course culminates
with an examination of the contributions of West African musicians to the World Music scene, focusing on issues of representation and Fair Trade.

**AAAS 389  Odyssey of Black Men in Amer**

3.000 Credits  
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

This course will examine the struggle of African American men for personal, political, and creative expression. This course incorporates several literary genres (narrative, fiction, essay, drama, and poetry) and the literary voices of black men who range from professional writers to politicians, from athletes to actors. Students will be required to critically read, discuss, analyze, and write their own responses to the literature found in the texts. (YR).

**AAAS 390  Topics in Af & Af Am Studies**

3.000 Credits  
Must be enrolled in one of the following Levels:  
Professional Development

This course examines problems and issues in selected areas of African and African American Studies. The specific title of the course will change in the Schedule of Classes according to content. Course may be repeated for credit when specific topic differs. (OC).

**AAAS 403  Minority Groups**

3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: SOC 200 or 201

The status of racial and ethnic minorities in the United States with particular reference to the social dynamics involved with regard to majority-minority relations. Topics of study include inequality, segregation, pluralism, the nature and causes of prejudice and discrimination and the impact that such patterns have upon American life. Students cannot receive credit for both AAAS 403 and AAAS 503. (YR).

**AAAS 404  Dissed: Differ, Power, Discrim**

3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior

Have you ever been dissed? Why are some people targets of disrespect? This class examines the unequal distribution of power - social, economic, and political - in the United States and other countries that results in favor for privileged groups. We will examine a variety of institutional practices and individual beliefs that contribute to disrespect. We'll look at ways that beliefs and practices, like viewing inequality as consequence of a 'natural order', obscure the processes that create and sustain social discrimination. We will engage in the intellectual examination of systems, behaviors, and ideologies that maintain discrimination and the unequal distribution of power and resources. Students will not receive credit for both AAAS 404 and AAAS 504.

**AAAS 440  Seminar: African Diaspora**

3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Sophomore  
Freshman  
Prerequisites: HIST 300 or AAAS 2755 or HIST 345 or AAAS 345

Research seminar on the history of the African Diaspora in the Atlantic World. This course covers examples of classic texts in the field, as well as significant new scholarship, with an emphasis on critical reading, analysis, and the development of an independent research project. Students gain a deeper understanding of the significance of the African Diaspora in the New World, derived from lectures and discussions providing an overview of this subject, as well as the micro views gleaned from sharing classroom presentation about students' individual research topics. The graduate version of this course includes weightier readings and assignments, with a research paper for potential publication.

**AAAS 449  Black Family in Contemp Amer**

3.000 Credits  
Prerequisites: SOC 200 or 201

The African-American family is examined in relationship to the historical and contemporary forces that have shaped its characteristic patterns of family life. These forces include the influence of slavery, urbanization, racial discrimination and urban poverty. The patterns of family life include parental roles, family structure, kinship relations, and gender roles. (YR).

**AAAS 469  Contemporary African Amer Lit**

3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

An intensive study of major 20th-century African-American writers. Fiction, poetry, autobiography, and drama will be examined but one genre will be stressed in any given term, e.g., the novel. Lectures will provide historical and biographical context for analysis and discussion of the works. Students cannot receive credit for both AAAS 469 and AAAS 569. (YR).

**AAAS 470  Black Women / Lit, Film, Music**

3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Arts, Sciences&Letters  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: FILM 240 or FILM 248 or FILM 385 or AAAS 239 or AAAS 275 or WST 275 or WGST 275 or WST 370 or WGST 370 or HUM 221 or HUM 222 or HUM 223 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 237 or ENGL 239 or ENGL 248 or ENGL 200 or WGST 303 or HUM 303 or ANTH 303 or PSYC 303 or SOC 303 or WGST 303
This course will examine works produced by Black women authors, activists, filmmakers and musical performers in order to determine the methods they have incorporated in order to challenge and eradicate the prevailing stereotypes about Black women while advancing their own personal and racial agendas. It will also focus on the extent to which race, gender and class have shaped the creative work of Black women. Students will be required to read, discuss, analyze and write their own responses to the works of such firebrands as author Zora Neale Hurston, activist Ida B. Wells, filmmaker Julie Dash, and singer Billie Holliday.

**AAAS 473 Race, Crime, and Justice**
3.000 Credits
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: SOC 200 or 201

This course is an analysis of race and its relation to crime in the criminal justice system. Students will analyze and interpret the perceived connection between race and crime, while exploring the dynamics of race, crime, and justice in the United States. This course is designed to familiarize students with current research and theories of racial discrimination within America's criminal justice system.

**AAAS 477 African American English**
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: LING 280 or LING 281 or LING 480

An examination of the structure, history and use of African-American English. Topics will include the pronunciation, grammar and vocabulary of African-American English, theories of origin, linguistic repertoire and code-switching in African-American communities, the Ebonics controversy, and the role of this variety in education and identity formation. Student cannot receive credit for both AAAS 477 and AAAS 577.

**AAAS 491 Topics in African Diaspora**
3.000 Credits

This course deals with African Diasporan history from the 19th century to the present. The method is by definition cross-cultural and comparative, requiring that the works or figures under study represent a diversity of Diasporan nationalities and/or cultures. The course may focus on a wide range of topics. Students cannot receive credit for AAAS 491 and AAAS 591 when the topic title is the same.

**AAAS 498 Thesis**
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: AAAS 275 or AAAS 239 or ENGL 239 or HIST 106 or AAAS 106

Students pursuing the AAAS minor or an area of focus in African and African American Studies may choose to complete their coursework with a final thesis project that reflects research interests developed during their course of study. This thesis, which can be used to fulfill three (3) hours of the required upper-division course work, will be written under the direction of a faculty member whose scholarly expertise is compatible with the research field(s) of the student. (OC).

**AAAS 499 Independent Study**
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: AAAS 275 or AAAS 239 or ENGL 239 or AAAS 106 or HIST 106

Students pursuing the AAAS minor as well as those interested in focusing on some particular area in African and African American Studies may wish to do research on a topic not covered in the regular AAAS curriculum. This course provides an opportunity for students to conduct such research under the direction of a qualified faculty member. The project must be defined in advance in writing. (OC).

**American Studies**

American Studies is a field of study which examines the core values and ideas that define American culture, while at the same time emphasizing the diversity of its expressions in past and contemporary times. This scholarly inquiry draws upon the content of several disciplines and capitalizes also on the interdisciplinary content already common in courses offered on campus under English, History, Political Science, Sociology, Anthropology and other disciplines. Students in American Studies will not only come to a deeper understanding of their own culture, but will gain an appreciation for the challenges involved in the understanding of any culture. This course of study thus provides a thorough training in the liberal arts and is an excellent preparation for the job market or graduate study in a variety of fields.

**PREREQUISITES TO THE MAJOR**

For the American Studies major, students are required to complete 4 prerequisite courses for a total of 12 credit hours from the following:

- AAAS 275 Intro to Africana Studies
- AAST 3671 Intro to Arab American Studies
- COMM 220 Survey of Mass Communication
- ENGL 239 Intro to African American Literature
- ENGL 313 American Lit: Colonial to 1900
- HIST 111 American Past I
- HIST 112 American Past II
- POL 101 Intro to American Government
- WGST 303 Introduction to Women’s Studies

**MAJOR REQUIREMENTS**

**Upper Level**

At the upper level, students must complete 9 courses (a total of 27 credit hours), beginning with AMST 300, the gateway course, which provides an introduction to the subject matter and methods of American Studies.

The remaining 8 courses must be chosen from the tracks listed below. An American Studies advisor will provide guidance to students in their choice of courses, as there are other courses that may be relevant to the American Studies major. Students may be able to count these courses in the major with approval of the faculty advisor by petition. Students are also strongly encouraged to take an internship or independent study course in their senior year.
Track 1. Comparative American Identities
One of the distinctive features of American culture is the multiplicity of subcultures it includes. This makes the process of finding a personal and social identity more complex than in other more homogeneous societies. A number of courses can give a further understanding of the historical development and intersection of the variety of racial, ethnic, gender, or class identities in American life. Some representative courses for this track are:

- SOC 423 American Social Classes
- ENGL 445 20th / 21st Century Women Authors
- ENGL 4705 Black Women in Lit, Film, Music
- HIST 368 Black Experience in US 1865-present
- HIST 370 American Women’s History
- HIST 384 Immigration to America

Track 2. Work, Technology and Globalization
This track encourages an understanding of American Studies through the world of work and technological innovation. Students will study how work and technology define and shape American culture – both in historic and in contemporary contexts. Students will explore how technology in America shapes both work identities and work environments. They will also consider how the American workforce is affected by the globalization of labor and other resources. Some representative courses for this track are:

- STS 300 Introduction to Science and Technology
- ECON 321 Labor in the American Economy
- WGST 481 Gender and Globalization
- SOC 460 America in Global Society

Track 3. Literature, Arts and Culture
This track provides an interdisciplinary approach to the study of literature, music, the visual and performing arts, popular culture, architecture and the environment, with the objective of understanding the arts in relation to major issues and themes in American social, political and historical development. This track, exploration of the arts offers opportunities to further engage questions central to the American Studies field, such as, what is “American” about this novel, this school of painting, this music? What has been the role of the arts in the evolution of an American national identity? How has art inspired or reflected various American identities? The courses offered under this rubric feature a variety of historical periods as well as a diversity of gender, race and ethnic special interests. Some representative courses for this track are:

- ARTH 361 American Art
- ARTH 375 Urban Design Perspectives
- ENGL 452 Major 20th/21st Century American Authors
- ENGL 469 20th Century Afr. Amer. Lit
- JASS 457 American Cinema
- MHIS 331 Music of America
- MHIS 120 History of Jazz
- SOC 304 Detroit Culture

Track 4. Society, Religion and Politics
This track examines the ways in which both personal and national identity are shaped through a dynamic process of interaction between American citizens and the broad array of civic, religious, and cultural institutions in American society. Within this framework, students will study competing ideas of citizenship and nationhood as they operate in a variety of historical and contemporary contexts. In addition, this same perspective affords students the opportunity to explore regional topics of interest such as Detroit culture, the history and sociology of the auto industry, and the diversity of religious experience in Southeastern Michigan. Some representative courses for this track are:

- SOC 441 Sociology of the Auto Industry
- HIST 363 Religion in American History 1607-1865
- HIST 3695 The American City
- POL 304 American Political Thought
- POL 360 American Policy Process

NOTES:
1. At least 15 of the 27 upper level hours in the American Studies major must be elected at UM-Dearborn.
2. Some upper level courses may require additional prerequisites.
3. Other courses may be relevant to the American Studies major. Students may be able to count these courses in the major with approval of the faculty advisor by petition.

Advising
American Studies majors are required to consult with an American Studies advisor. To inquire, contact the CASL College-Wide Programs office, 2036 CB, (313) 593-4925.

American Studies (AMST)

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Advising
American Studies majors are required to consult with an American Studies advisor. To inquire, contact the CASL College-Wide Programs office, 2036 CB, (313) 593-4925.
The independent study is designed for American Studies majors to provide an opportunity for pursuing a significant scholarly project that explores a topic of interest in American Studies while synthesizing insights gained from prior coursework in American Studies. The course can be repeated for up to 6 credits.

**Anthropology**

Anthropology, the comparative study of humanity and culture, seeks to explain both diversity and similarity in human behavior around the world. It is an academic discipline that integrates a number of specialized fields, including Biological and Physical Anthropology, Archaeology, Social and Cultural Anthropology, Linguistic Anthropology, and Applied Studies of human problems.

The University of Michigan-Dearborn program emphasizes anthropology's unique concern with the inter-dependence of human biology and culture. Anthropology at UM-Dearborn provides the foundation for a broad understanding of human behavior and values for students interested in a truly liberal education.

Anthropology is excellent preparation for all careers dealing with human beings. The holistic approach to culture and biology is especially useful for careers in the medical sciences, while the cross-cultural exposure is essential preparation for students going into professions such as education, business, human services or international development.

An advanced degree in anthropology or archaeology (usually a Ph.D.) ordinarily leads to a career as a university anthropologist or archaeologist. Increasingly, though, professional anthropologists work as independent consultants.

**MAJOR REQUIREMENTS**

Required courses
- ANTH 101 Introduction to Anthropology .......... 3 hrs
- ANTH 202 World Cultures ...................................... 3 hrs

An additional 24 credit hours of anthropology courses numbered 300 or above.* .......................................................... 24 hrs

*Three courses emphasizing the interaction of culture and biology (325, 331, 336, 340, 341, 345, 406, 409, 415, 430, 435, 459 and 482) must be included among these 24 hours. Students are encouraged to take ANTH 331 prior to enrolling in the courses with the strongest biological emphasis (i.e., 336, 340, 341, and 409)

**Mentor Program**

The anthropology program sponsors a mentor program in which junior and senior majors assist faculty in guiding introductory classes. They help students use the library, guide them through written assignments and exam preparation, and sometimes lecture or do demonstrations before the class. Participants regularly count this among the high points of their undergraduate experience.

**Field School**

Summer field schools in anthropology provide excellent training and experience for students interested in furthering their anthropological background and understanding. Field schools provide students with training in anthropological methods in archaeology, human paleontology, linguistics, primatology, and socio-cultural anthropology. Students have attended summer field schools in Australia, Jordan, Kenya, Peru, Guatemala, Costa Rica, Mexico, Ireland, the United States and elsewhere. Limited scholarship funds are available to students to help subsidize the cost of attending one of these programs. The scholarship program is competitive, and preference is given to students majoring or minoring in anthropology.

**Cognates** .......................................................... 6 hrs

Students will elect six hours in upper-level courses from the following disciplines: geography, psychology, sociology, linguistics, biology, economics, philosophy, history, English, art history, and music history. Courses from other disciplines may be considered by petition.

**NOTES:**

1. At least 15 of the 24 upper level hours in ANTH must be elected at UM-Dearborn.
2. No more than 6 hours of independent study and no more than 6 hours of independent readings within the Behavioral Sciences may be counted in the 120 hours required for graduation.

**MINOR OR BGS/LIBS AREA OF FOCUS**

A minor or area of focus consists of ANTH 101 and 12 credit hours of upper-level credit in anthropology.

**Anthropology (ANTH) COURSE OFFERINGS**

**ANTH 101 Introduction to Anthropology**
3.000 Credits

A survey of anthropology which introduces the fundamental concepts and perspectives of the field. (F,W).

**ANTH 202 World Cultures**
3.000 Credits

A comparative study of politics, economics, family and religion in selected cultures—foraging, tribal, peasant, and industrial. Provides a survey of theoretical concepts in social and cultural anthropology through the comparison of ethnographic case studies. ANTH 101 recommended. (YR).

**ANTH 303 Intro To Women's & Gender Stud**
3.000 Credits

Limited scholarship funds are available to students to help support a project that explores a topic of interest in American Studies. The course can be repeated for up to 6 credits.

**ANTH 315 Body Image and Culture**
3.000 Credits

Prerequisites: ANTH 101 or WST 275 or WGST 275 or WGST 303 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or PSYC 303 or SOC 303 or ANTH 303 or HUM 275

This course provides an interdisciplinary overview of the key theories and topics in Women's and Gender Studies. Special attention is given to how gender intersects with class, race, nationality, religion and sexuality to structure women's and men's lives. Students are also introduced to methods of gender analysis and will begin to apply these methods to topics such as women and health, gender roles in the family, violence against women, and gendered images in the mass media.
This course examines the biological and sociocultural construction of body image in both men and women. We explore such cultural and social practices as nudity, tattooing, piercing, scarification, dietary habits, physical activity and sports performance and their associated myths and realities. We explore how the human body is a terrain of contested meaning within society. The course provides an examination of the causes and consequences of women's poor body image, contemporary and historically. Course materials include case studies from North America, Europe, Africa, Asia and the Pacific.

ANTH 320  Culture and Int'l Business  
3.000 Credits

Lectures, exercises and case studies explore anthropological concepts needed by managers in multinational and multi-ethnic work environments. Topics include the world economy in anthropological perspective, national culture and business culture, implicit values about work and time, and cross-cultural communication. Special emphasis is given to Japan and the Third World. ANTH 101 or SOC 200 recommended. (AY).

ANTH 325  Anth of Health and Environment  
3.000 Credits

Cultural conflicts over pollution, disease etiology, development and natural resources often originate and are played out in local ecosystems. Anthropologists are increasingly becoming involved as researchers, developers, and activists in these cultural strifes. This course reviews the work of environmental and medical anthropologists as well as other critical scholars who unravel the values, meanings and ideologies associated with ecological issues in given localities. Drawing on theoretical advances in critical medical anthropology, environmental anthropology and applied anthropology the course seeks to improve the knowledge and abilities of student anthropologists in their environmental health work.

ANTH 331  Human Evolution  
3.000 Credits

A survey of biological anthropology. This course is a prerequisite for all other upper-division bioanthropology courses. Topics include the human place in nature, primate biology and behavior, evolution theory, genetics, the fossil evidence for human evolution, human growth, and biocultural adaptation to the environment. (YR).

ANTH 336  Introduction to Primates  
3.000 Credits

Introduction to the fundamentals of primate paleontology, evolution, morphology, and behavior with an emphasis on understanding the evolution of primate and human social behavior. (YR).

ANTH 340  Race and Evolution  
3.000 Credits

An evolutionary survey of the biological differences among human populations in response to such factors as climate, culture, disease, nutrition, and urbanization. The meaning of racial variation is discussed in terms of adaptation to environmental stress. "Race" is rejected; racism is discussed. (AY).

ANTH 341  Human Paleontology  
3.000 Credits

A survey of the evolutionary history of life through the study of fossils and collaborative field and laboratory material. The evolution of humans and the primate order of mammals is emphasized. (AY).

ANTH 345  Cultural Ecology and Evolution  
3.000 Credits

An introduction to the study of human ecology. This course employs the case-study method to develop an evolutionary and biocultural perspective on the relationship between human beings and their environments. (YR).

ANTH 350  Prehistoric Archaeology  
3.000 Credits

Must be enrolled in one of the following classes: 
Sophomore  
Senior  
Junior

An account of the methods and findings of modern archaeological science in the Old and New World. Methods considered typically include paleontology, dating techniques, stratigraphy, etc. Sophomore standing; ANTH 101 highly recommended. (YR).

ANTH 360  Myth, Magic, and Mind  
3.000 Credits

Must be enrolled in one of the following classes: 
Sophomore  
Senior  
Junior

A broadly based introduction to the range of human mythical and magical traditions. Sophomore standing; ANTH 101 highly recommended. (YR).

ANTH 370  Indians of North America  
3.000 Credits

Must be enrolled in one of the following classes: 
Sophomore  
Senior  
Junior

The origin and development of cultures north of Mexico. A study of various culture areas and representative tribes at contact, and a political-economic analysis of the fate of American Indians since contact. The perspectives of Native American peoples are taken into account through books, novels, and poetry. Sophomore standing; ANTH 101 highly recommended. (YR).

ANTH 371  African Exper in the Americas  
3.000 Credits

This course is a survey of African populations and cultures from 1500 to the present throughout the Americas. The focus is on Caribbean and Latin American contexts of these populations, but comparisons to North America will be made. Topics include slavery, the relationship between Africans and indigenous populations, religions, politics, music, and questions of race and ethnicity. Readings will include ethnographic description, history, biography and fiction. (YR).
ANTH 372  Anthropology of Latin America  
3.000 Credits  
The course is a survey of Latin American people and cultures from the conquest to the present. It will focus on culture change and sources of conflict by analyzing topics that include the economy, kinship, ethnicity, social stratification, gender, politics, religion, and the arts. Readings will include ethnographic description, history, biography, contemporary fiction. (YR).

ANTH 373  Anth Persp on the Middle East  
3.000 Credits  
This course examines Middle Eastern society from a cultural perspective. Topics discussed include kinship, gender, popular and orthodox Islam, nationalism, mass media, urbanization, and historical relations with the West. The course ends with an examination of the Arab immigrant experience in Metro Detroit. (AY).

ANTH 374  Anthropology of Europe  
3.000 Credits  
Introduces anthropological approaches to European culture, emphasizing ethnographies and community studies as well as social history from the classical and medieval to the present. Will include cultural implications of industrialism and urbanization. May focus on Western or Eastern Europe during a given semester. (AY).

ANTH 376  Power & Privilege in SE Mich  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Freshman  
An examination of the social and cultural systems that lead to power, privilege, and inequality in American culture. This course takes a local perspective, analyzing systems of inequality as related to such factors as race, ethnicity, gender, social class and sexual orientations. Field trips to local sites are included. (YR).

ANTH 390  Topics in Anthropology  
3.000 Credits  
Prerequisites: ANTH 101  
Examination of problems and issues in selected areas of anthropology. Title in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

ANTH 391  Topics in Anthropology  
3.000 Credits  
Examination of problems and issues in selected areas of anthropology. Title in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. Junior standing required. (OC).

ANTH 397  Honors Tutorial  
3.000 Credits  
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior  
Advanced seminar on selected topics offered through honors program. (OC).

ANTH 398  Independent Studies in Anthr  
1.000 TO 6.000 Credits  
Readings or analytical assignments in anthropology in accordance with the needs and interests of those enrolled and agreed upon by the student and instructor. Permission of instructor required. (F,W).

ANTH 399  Independent Studies in Anthr  
1.000 TO 6.000 Credits  
Prerequisites: ANTH 101  
Readings or analytical assignments in anthropology in accordance with the needs and interest of those enrolled and agreed upon by the student and instructor. (F,W).

ANTH 406  Culture and Sexuality  
3.000 Credits  
Prerequisites: ANTH 101 or WST 275 or WGST 275 or WGST 303 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303  
The study of women, men, children, socialization practices, and the genesis of sex roles cross-culturally. Students cannot receive credit for both ANTH 406 and ANTH 506. ANTH 101 recommended. (YR).

ANTH 407  Sexual Praxis and Theory  
3.000 Credits  
Prerequisites: WST 275 or WGST 275 or SOC 443 or PSYC 405 or ANTH 406 or ANTH 101 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275  
This course will offer an overview of sexual differences including: the socio-cultural construction of gender, sexual behavior, and orientation; sex and sexualities in language and literature; and diversity by race, class, and cultural heritage. These topics will enable students to understand human sexuality within and across a continuum removing notions of duality, or polarity, in sexual behaviors and orientations. Examples both from within Western society and from non-Western societies may be used to further this position. Theoretical perspectives may encompass sociological and anthropological work, literary theory and criticism, queer theory, and multi-disciplinary discussions/discourse. Texts may include: Sex and the Machine: Readings in Culture, Gender and Technology, The Anatomy of Love, The Lesbian and Gay Studies Reader, Second Skins: The Body Narratives of Transsexuality, and Lesbian and Gay Marriage.

ANTH 409  Human Body, Growth & Health  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
This course provides an advanced undergraduate introduction to the topic of human growth and shows how human growth can be a reliable measure of the psychological, social, economic and moral conditions of a society. A major theme will be the interplay of biology and culture in shaping the patterns of human growth and, consequently, the health of populations and individuals.
ANTH 412 Men and Masculinities
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: SOC 200 or SOC 201 or ANTH 101 or WST 275 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

This course addresses the question, "What is a man?", in various historical, cross-cultural, and contemporary contexts. A major focus on the social and cultural factors that underlie and shape conceptions of manhood and masculinity in America as well as in a variety of societies around the globe. (AY).

ANTH 415 Nutrition and Health
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior

The influence of nutrition on physical and mental development from conception to adulthood. Topics include: 1) the definition and function of the essential nutrients for people, 2) basic principles of human growth and development, 3) the causes and consequences of under- and overnutrition, 4) feeding practices for infants and children and the development of food habits, 5) nutrient and food problems in the local region and in global perspective. Students cannot receive credit for both ANTH 415 and ANTH 515. (YR).

ANTH 420 Kinship and Marriage
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: ANTH 101 or ANTH 201

A study of the diversity of kinship and marriage systems, and of the history of kinship theory which has played a seminal role in the development of general anthropological theory. Students cannot receive credit for both ANTH 420 and ANTH 520. (OC).

ANTH 421 Education and Culture
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

How and where do people learn? Why are there schools, and how is schooling culturally organized? Why do school experiences tend to vary by "race", social class, and gender? What insights does anthropology bring to practical problems of learning and teaching? Students cannot receive credit for both ANTH 421 and ANTH 521. ANTH 101 or SOC 200 recommended. (AY).

ANTH 422 Narrative Anthropology
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior

A consideration of alternative approaches to gaining ethnographic understandings by reading anthropological novels (Bohannan, LeQuin), fiction and poetry by non-western authors (Silko, Achebe), and travel writing (Chatwin, O'Hanlon). Junior standing; ANTH 101 highly recommended. (YR).

ANTH 425 Language and Society
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

An examination of the social functions of speech through readings and exercises, emphasizing schools and other applied settings. Topics include ethnic and social class dialects, codeswitching, and the organization of conversation. Students cannot receive credit for both ANTH 425 and ANTH 525. (OC).

ANTH 430 Medical Anthropology
3.000 Credits
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior

A comprehensive examination of how culture mediates processes of illness and healing. Comparative materials are examined which provide a context for an anthropological analysis of modern biomedicine. Sophomore standing; ANTH 101 highly recommended. (YR).

ANTH 435 Human Genetics
3.000 Credits

An analysis of human genetic variation in terms of the theory of population genetics considers such polymorphisms as blood groups and variant hemoglobins as well as morphological characters like stature, skin color, and so on. Emphasis is on the genetics of human populations and particular attention is drawn to cultural factors affecting human biology. (OC).

ANTH 440 Religion and Culture
3.000 Credits

An introduction to the comparative study of religious systems. Explores religious beliefs and practices in non-Western cultures; surveys theoretical approaches to the study of religion; and discusses how religions grow, develop, and change. ANTH 101 recommended. (YR).

ANTH 444 Political Anthropology
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior

A consideration of some of the major anthropological views of politics, focusing on the relations of power to kinship, stratification, and religion in both states and stateless societies. Sophomore standing; ANTH 101 highly recommended. (OC).

ANTH 450 Anthropological Theory
3.000 Credits
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior
An historical account of the development of anthropological theory, emphasizing the continuity between consecutive styles of explanation. Substantial consideration of recent theoretical developments in structuralism and ecological analysis. Sophomore standing; ANTH 101 highly recommended. (OC).

**ANTH 455 Immigrant Cultures and Gender**  
3.000 Credits  
Must be enrolled in one of the following classes:  
   - Senior  
   - Junior

The history and culture of immigration since 1850, including: (1) formation and perseverance of immigrant communities and interethic boundaries; (2) relations between the homeland and the immigrant; and (3) impact of migration on family life and gender roles. Students cannot receive credit for both ANTH 455 and ANTH 555. ANTH 101 recommended. (OC).

**ANTH 459 Human Osteology**  
3.000 Credits  
May not be enrolled in one of the following Classes:  
   - Sophomore  
   - Freshman

Prerequisites: ANTH 331 or BIOL 130

An introduction to the methods and theory of human osteology, bone history, pathology, biomechanics and taphonomy. Osteology lecture topics include age, sex, stature and ancestry estimation, the problems of commingling and differential disease diagnosis. The lab component provides hands-on skills. The course investigates how the forensic anthropologist can apply skills to human rights and police investigations and the nuances distinguishing theoretical approaches of forensic anthropology and bioarchaeology.

**ANTH 460 Economic Anthropology**  
3.000 Credits  
Must be enrolled in one of the following classes:  
   - Senior  
   - Junior

A comparative examination of the basis of political economy. Economic problems (the production and distribution of goods and services) will be considered in ecological, evolutionary, and political terms. The primary emphasis will be on traditional economies, on production and exchange at the household level, and on the effect of modern market systems on indigenous cultures. (OC).

**ANTH 470 Doing Anthropology**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
   - Undergraduate

A practicum of anthropological theory and method, including ethnographic interview and participant observation. Students will conduct field research and evaluate results with the help of classmates. Students cannot receive credit for both ANTH 470 and ANTH 570. ANTH 101 or SOC 200 highly recommended. (YR).

**ANTH 477 Ethnographic Film**  
3.000 Credits

Prerequisites: FILM 248 or HUM 248 or ANTH 101 or ENGL 248 or JASS 248

This course will analyze ethnographic films as a medium for the construction of meaning in and across cultures. It will teach students to understand how the putatively "real" content of documentary film creates a mixture of fantasy, news and "science." Covering texts as varied as National Geographic photographic layouts, traditional ethnographic films made by anthropologists, and auto-ethnographies of cultural groups such as Native Americans and the Trobriand Islanders of Papua, New Guinea, the course will aim to deconstruct such oppositions as indigene vs. alien, us vs. them, and self-vs. other. Students cannot receive credit for both ANTH 477 and ANTH 577. (AY).

**ANTH 481 Gender and Globalization**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
   - Undergraduate

Must be enrolled in one of the following Colleges:  
   - Coll of Arts, Sciences&Letters

May not be enrolled in one of the following Classes:  
   - Sophomore  
   - Freshman

Prerequisites: ANTH 303 or HUM 303 or SOC 303 or PSYC 303 or WGST 303

Mass media, politics, and academia are full of references to globalization, and a future "world without borders." This interdisciplinary course considers the implication of globalization for women's lives, gender relations, and feminism. Topics covered include the global factory, cross-cultural consumption, human rights, global communications, economic restructuring, nationalism, and environmental challenges. Rather than survey international women's movements, this course explores how globalization reformulates identities and locations and the political possibilities they create. (AY).

**ANTH 482 Psychological Anthropology**  
3.000 Credits

Cross-cultural comparison of theories of human nature, including psychoanalytic anthropology, culture-and-personality, and other theories from Western science, as well as non-Western theories about such concepts as the person, emotions and mental illness. Students cannot receive credit for both ANTH 482 and ANTH 582. ANTH 101 and PSYC 170 or 171 highly recommended. (YR).

**ANTH 498 Independent Study**  
1.00 TO 6.000 Credits

Readings or analytical assignments in anthropology in accordance with the interests and needs of students enrolled and agreed upon by the instructor and student. Written permission of instructor required.

**ANTH 499 Readings in Anthropology**  
1.00 TO 3.000 Credits

For students desiring study not available in the regular course offerings. Students cannot receive credit for both ANTH 499 and ANTH 599. (F,W)
Applied Arts (ART)
COURSE OFFERINGS

ART 201  Beginning Painting
3.000 Credits
Lectures on the fundamentals of painting along with work in the studio. Basic ideas of structure, composition, and color are explored through individual and group instruction. Students work from still-life and from the model. This is a broad introductory painting course designed for the student unfamiliar with fundamentals of design and color. Material: acrylics. (YR).

ART 202  Beginning Drawing
3.000 Credits
Lectures alternate with studio work in the investigation of drawing fundamentals. Students receive individual and group instruction as they work from still life setups, nature, and from the model. Emphasis is placed on the development of critical skills and perceptual drawing techniques for students with little or no studio experience. Pastel, charcoal, conte, pencil, and inks will be used. (YR).

ART 204  Beginning Watercolor
3.000 Credits
Through lectures and studio work, students will explore the fundamentals of watercolor painting. To demonstrate the dynamics of the medium, a variety of approaches and techniques will be used, including realistic, abstract, and experimental painting. Subject matter includes still life, the figure, possible outdoor sketching and painting from the imagination. All levels of students are given individual guidance. (YR).

ART 206  Basic Design-Color
3.000 Credits
Students will be introduced to the complex and diverse subject of color. The areas of study include principles and theories of color, practical application and technique, and the phenomenon of color interaction. The art elements (line, shape, value, space, form, and texture) and design principles will be applied within specific assignments. Compositional concerns and creative problem solving will be emphasized. (YR).

ART 220  Intro to Digital Photography
3.000 Credits
This course focuses on the creative use of digital imaging software and hardware. Students are exposed to contemporary artists and professionals working in traditional and digital photography. Students also consider critical issues surrounding the aesthetic, ethical and theoretical aspects of digital imaging technology and current photographic practice. Application of these approaches, processes and concepts are discussed in terms of their relevance within and beyond art practices, including art as personal expression and as a professional field. Each assignment engages students’ critical thinking as they explore the artistic possibilities of digital photography while expanding their technological and aesthetic knowledge. During project critiques, students practice articulating their thought processes in relation to their own work and the work of their peers.

ART 306  Intermediate Design-Color
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: ART 206
The design emphasis will be on line and movement, positive/negative space, push/pull dynamics and a study of the nature of grids. The color emphasis will focus on tertiary colors, the effect of variations in color intensity and tonal contrast. There will also be a study of various twentieth century design movements such as the Russian Avant Garde, Constructivism and the Bauhaus, with some assignments modeled on these styles.

ART 321  Intermediate Painting
3.000 Credits
Prerequisites: ART 201
Various painting approaches, styles and concepts are explored beyond the basic level through lectures and studio work. Students are encouraged to develop their own personal style as they master new techniques and types of subject matter. This course is repeatable once in order for students to develop their skills. When repeating, the content and assignments are determined in consultation with instructor.

ART 322  Intermediate Drawing
3.000 Credits
Prerequisites: ART 202
The fundamentals of drawing are refined beyond the basic level in a variety of media through lectures and studio work. Students are encouraged to develop their own personal style as they master new techniques and types of subject matter. This course is repeatable once in order for students to develop their skills. When repeating, the content and assignments are determined in consultation with instructor.

ART 323  Figure Drawing
3.000 Credits
Prerequisites: ART 202
This course is designed to teach each student about the complex human form through the act of observation, drawing, and memorization of specific anatomical terms. Emphasis will be on proportion, anatomy, composition, and expression. Students will draw from a live model.

ART 324  Intermediate Watercolor
3.000 Credits
Prerequisites: ART 204
Various watercolor painting approaches, styles and concepts are explored beyond the basic level through lectures and studio work. Students are encouraged to develop their own personal style as they master new techniques and types of subject matter (still life, the figure, landscape and painting from the imagination). This course is repeatable once in order for students to develop their skills. When repeating, the content and assignments are determined in consultation with instructor.

ART 332  Creating the Graphic Novel
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
Prerequisites: ART 202 or ART 206
This course focuses on the creation of an original graphic novel from inception to fully developed story. Students work on character, plot development, dialogue, drawing style, and layout planning, and are encouraged to introduce any cross-disciplinary techniques such as digital applications when appropriate. Lectures and readings consider contemporary media. This course is repeatable once in order for students to develop their skills. When repeating, the content and assignments are determined in consultation with instructor.

**ART 360 Introduction to Printmaking**
3.000 Credits
Prerequisites: ART 201 or ART 202 or ART 204 or ART 206

This studio course is an introduction to the fundamentals of printmaking. The basic techniques of intaglio, lino-cut, chine collé, lithography and monotype printing methods are utilized in projects. As a deeply interdisciplinary practice, printmaking engages with other artistic media of drawing, painting, and collage. Each student is encouraged to incorporate other materials based on her/his major, interests or expertise.

**ART 390 Topics in Applied Art**
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate

Study of various media and techniques in selected areas of applied art. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when the topics differ.

**ART 399 Independent Studies in App Art**
1.000 TO 3.000 Credits

Readings or analytical assignments in applied art in accordance with the needs and interests of those enrolled and agreed upon by the student and the instructor. (F, W).

**Applied Music (MAPP) COURSE OFFERINGS**

**MAPP 120 Private Instruct in App Music**
1.000 Credits

For students who desire credit for private lessons on a musical instrument of voice. The lessons are taken outside the University from an instructor approved by the music faculty of the University. Interested students should contact the music faculty at the beginning of the term to arrange for a teacher. 8 hours of instruction over 16 weeks are required for 1 hour of credit. This course may be repeated for up to 8 hours of credit. The student pays the instructor's fee and also tuition for university credit. (F, W)

**MAPP 125 Class Piano I**
2.000 Credits

Development of skills at the keyboard in harmonization, improvisation, sight reading, accompanying, repertoire, and technique. Emphasis on group learning for beginners. (OC).

**MAPP 126 Class Piano II**
2.000 Credits

Enhancement of skills at the keyboard in harmonization, improvisation, sight reading, accompanying, repertoire, and technique. Emphasis on group learning for beginners. (OC).

**MAPP 135 Class Guitar I**
2.000 Credits

Development of skills in reading chord tablature, playing basic accompaniments to folk songs using various strumming and fingerpicking techniques, basic theory, reading, playing rhythms and notes. Emphasis on group learning for beginners. (OC).

**MAPP 136 Class Guitar II**
2.000 Credits

Enhancement of skills in reading chord tablature, playing basic accompaniments to folk songs using various strumming and fingerpicking techniques, basic theory, reading, playing rhythms and notes. Emphasis on group learning for beginners. (OC).

**MAPP 138 Symphonic Band**
1.000 Credits

Credit may be earned by students who are regular members of approved symphonic bands.

**MAPP 145 Choir**
1.000 Credits

One hour of credit per semester may be earned by students who are members of the UM-Dearborn choral ensemble. There will be a concert performance every semester which will be open to the general public. (F, W).

**MAPP 299 Independent St in Appl Music**
1.000 TO 2.000 Credits
Prerequisites: MAPP 126 or MAPP 136

This course assumes a sound knowledge of basic technique and music theory, as covered in MAPP 126 or MAPP 136. Material covered in the course is selected in accordance with the needs and interests of those enrolled and agreed upon by the instructor and the student.

**MAPP 320 Adv Private Instr in App Music**
1.000 TO 2.000 Credits

For advanced students in applied music. The lessons are taken outside the University from an instructor approved by the music faculty of the University. Interested students should contact the music faculty at the beginning of the term to arrange for a teacher. 8 hours of instruction over 16 weeks are required for 1 hour of credit. This course may be repeated for up to 8 hours of credit. Each student is required to pass a jury exam or perform publicly during each semester. The student pays the instructor's fee and also pays tuition for university credit.

**MAPP 399 Independent St in Appl Music**
1.000 TO 2.000 Credits
Prerequisites: MAPP 299

This course is intended for those students who have taken MAPP 299, or students at an advanced level who have previously studied piano or guitar formally for several years. Material covered in the course is selected in accordance with the needs and interests of those enrolled and agreed upon by the instructor and the student.
Applied Statistics

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

A minor consists of 12 hours of upper-division credit or graduate credit (300 or above level courses) in Applied Statistics. Only one of STAT 301, STAT 325 and STAT 363 can be used to satisfy this requirement. Students with majors in mathematics, the natural sciences, or the social sciences may find the minor in Applied Statistics to be a valuable supplement to their major.

Applied Statistics (STAT)
COURSE OFFERINGS

STAT 301 Biostatistics I
3.000 Credits
Prerequisites: MATH 113 or MATH 115

Samples and populations, quantitative vs. categorical data; clinical vs. epidemiological studies; comparative displays and analysis; linear regression. Estimation of effect size is emphasized along with the P-value for a statistical test: difference of means in simple comparative data together with a confidence interval and t-test; relative risk for appropriate categorical data; slope of a regression line together with a confidence interval and t-test. Study design is emphasized: clinical trials in experimental settings; case-control and cohort studies in epidemiological settings. Students are expected to make presentations interpreting and reporting the results of research from the literature. Students can receive credit for only one of MATH 301, MATH 363, STAT 301, CRJ 383, SOC 383, STAT 325.

STAT 325 Applied Statistics I
3.000 Credits
Prerequisites: MATH 113 or MATH 115 or MPLS 116

A study of the fundamental concepts and methods of probability and statistics. Topics include counting problems, discrete probability, random variables and probability distributions, special distributions, sampling distributions, the central limit theorem, introduction to hypothesis testing, and the use of statistical computer packages for data analysis. Students can receive credit for only one of MATH 363, STAT 363, STAT 325, CRJ 383, SOC 383, and STAT 325. (F,W).

STAT 363 Introduction to Statistics
3.000 Credits
Prerequisites: MATH 113 or MATH 115

Frequency distribution and descriptive measures. Populations, sampling and statistical inference. Elementary probability and linear regression. Use of statistical computer packages to analyze data. Students can receive credit for only one of STAT 325, STAT 363, MATH 363, and SOC 383. Students intending to elect this course should have had at least one year of high school algebra. (F,W,S).

STAT 390 Topics in Applied Statistics
3.000 Credits
Prerequisites: MATH 113 or MATH 115

A course designed to offer selected topics in applied statistics. The specific topic or topics will be announced together with the prerequisites when offered. Course may be repeated for credit when specific topics differ. (OC)

STAT 425 Applied Statistics II
3.000 Credits
Prerequisites: STAT 325 or STAT 363 or MATH 363 or SOC 383

A continuation of STAT 325. This course treats both the principles and applications of statistics. Elementary theory of estimation and hypothesis testing, the use of the normal, chi-square, F and t distributions in statistics problems will be covered. Other topics are selected from regression and correlation, the design of experiments, analysis of variance, analysis of categorized data, nonparametric inference, and sample surveys. (W).

STAT 430 Applied Regression Analysis
3.000 Credits
Prerequisites: STAT 425

Topics include single variable linear regression, multiple linear regression and polynomial regression. Model checking techniques based on analysis of residuals will be emphasized. Remedies to model inadequacies such as transformations will be covered. Basic time series analysis and forecasting using moving averages and autoregressive models with prediction errors are covered. Statistical packages will be used. Students cannot receive credit for both STAT 430 and STAT 530.

STAT 440 Design and Analysis of Experiments
3.000 Credits
Prerequisites: STAT 425

An introduction to the basic methods of designed experimentation. Fixed and random effects models together with the analysis of variance techniques will be developed. Specialized designs including randomized blocks, latin squares, nested, full and fractional factorials will be studied. A statistical computer package will be used. (W).

Arab American Studies

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

Dearborn and its neighbors are home to one of the largest-- and most diverse-- communities of people of Arab descent outside of the Middle East. The Center for Arab American Studies at UM-Dearborn encourages students to develop a coherent understanding of the unique circumstances surrounding the incorporation of Arab immigrants into American society; the broad range of diversity found within Arab American communities; how the Arab American experience is shaped by local, national and international conditions; and the contributions of Arab Americans to American culture and history.

A minor or area of focus requires 15 credit hours of upper level coursework including AAST 3150 and 12 additional credits of any 300/400; 3000/4000 level AAST courses. Other disciplines offer courses relevant to the AAST minor. Students will be able to count one such course toward the minor with approval of the AAST faculty advisor by petition.
**Arab American Studies (AAST) COURSE OFFERINGS**

**AAST 238 Intro to Lit: Arab American**  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40

This course in an introduction to Arab American literature, its historical and cultural contexts and contemporary relevance. Topics will include the literary and cultural productions of Arab immigrants, their transnational vision, and explorations of such concepts as home, memory and identity; the literary, dramatic and poetic responses of Arab American writers to 9/11 and the ongoing war on terror; the role Arab American literature in offering different versions of Arab and Arab American lives and experiences from the one circulated in mainstream media, Hollywood cinema and culture.

**AAST 267 Arab & Arab American Workshop**  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40

The Arab and Arab American Writers Workshop is a creative writing workshop focusing on poetry and fiction. Students will explore Arab American literature, writers, and themes. Students are expected to work on their own manuscripts as well as critique outside readings. The workshop will be conducted under the guidance of Arab and Arab American faculty and is open to all students.

**AAST 3150 Intro to Arab American Studies**  
3.000 Credits  
Must be enrolled in one of the following classes:  
- Senior  
- Sophomore  
- Freshman  
- Junior

This course explores the local, national, and global conditions through which Arab American identity and its alternatives take shape. It introduces students to humanities and social science approaches to the field of Arab American Studies.

**AAST 3634 History of Islam in the US**  
3.000 Credits  
Must be enrolled in one of the following classes:  
- Senior  
- Sophomore  
- Freshman  
- Junior

This course traces the long history of Islam and of Muslims in the United States (1730s-present), paying careful attention to the interaction among Muslims across the dividing lines of race, gender, immigrant generations, sect, political orientation, and class, and between Muslims and other Americans.

**AAST 3676 Arab Americans Since 1890**  
3.000 Credits

This is a survey of immigration from the Arab Middle East from 1890 to the present. Readings from available scholarship, discussions, and reports facilitate exploring the Arabic-speaking immigrants early and recent experiences as art of U.S. society, including settlement, work, worship, military service, leisure, intellectual life, and primary and formal affiliations across the U.S.

**AAST 381 Intro to Postcolonial Studies**  
3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240 or ENGL 250

This course offers a general introduction to Postcolonial Studies - a field of cultural inquiry that questions how personal identity (specifically race, language, and ethnicity) shapes, and is shaped by, the politics of colonization and nationalism. Students will clarify the subject of Postcolonial Studies by examining a variety of cultural and linguistic objects (literature, film, TV-journalism, slave- and middle-passage-narrative, and political manifesto) from a variety of cultural perspectives (Arab American, Anglo-Indian, West African, and Caribbean).

**AAST 390 Topics in Arab American Study**  
3.000 Credits

Examination of various topics dealing with Arab American Studies. Titles will change according to content and schedule of classes. Course may be repeated for credit when specific topic differs. (OC).

**AAST 4677 Arab American Identity**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
- Undergraduate  
Prerequisites: HIST 300

Extensive discussions and critical analysis of the main markers of Arab American identity formation from late nineteenth century to present. This seminar provides in-depth assessments of immigrant narratives from various sources and disciplinary approaches on specific racial, ethnic, and gender experiences within the larger U.S. context. Additional assignments distinguish the graduate version of this course from the undergraduate version.

**AAST 4678 Middle Eastern Diasporas**  
3.000 Credits  
Prerequisites: AAST 3150 or HIST 300

This course explores the diasporas of Arabs, Turks, Assyrians, and Iranians living in Europe and the Americas that have occurred since the 1880s. It pays careful attention to how "aspects of diaspora" shape, mimic, transect, and undermine the political and economic regimes of which they are part. The reception of Middle Eastern communities in different national contexts and historical periods receive special attention as do their adaptive strategies as religious, ethnic, gendered, and racialized minorities. Those enrolled in the graduate level of the course pursue additional readings and assignments.

**AAST 4679 Arab American Women Writers**  
3.000 Credits  
May not be enrolled in one of the following Classes:  
- Sophomore  
- Freshman  
Prerequisites: AAST 3150 or HIST 300

This course explores the diasporas of Arabs, Turks, Assyrians, and Iranians living in Europe and the Americas that have occurred since the 1880s. It pays careful attention to how "aspects of diaspora" shape, mimic, transect, and undermine the political and economic regimes of which they are part. The reception of Middle Eastern communities in different national contexts and historical periods receive special attention as do their adaptive strategies as religious, ethnic, gendered, and racialized minorities. Those enrolled in the graduate level of the course pursue additional readings and assignments.
This course examines the literary and cultural contributions of Arab and Arab American women novelists, poets, filmmakers and artists to the development and consolidation of cultures of understanding and coexistence; explores the relations between, among others, citizenship and belonging, race and national security, gender and geographical mobility, and ethnic minorities and mainstream consciousness; stresses how literary and artistic productions of Arab and Arab American women writers and artists fosters alternative visions of socio-cultural coexistence, dialogue, and hospitality by means of technical and stylistic experimental and renovation. For graduate credit take AAST 573. Students cannot receive credit for both AAST 473 and AAST 573.

AAST 490  Topics in Arab Amer Studies  
3.000 Credits

The content of this course will vary. All courses which will run under this number will cover Arab American issues.

Arabic Studies

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

A minor consists of 12 hours of upper-level credit (four courses at the 300/3000; 400/4000 level) in Arabic (ARBC) (excluding ARBC 350).

Prerequisites to the Minor

Non-native speakers of Arabic must successfully complete Arabic 202: Intermediate Arabic II (at or outside UM-Dearborn) or demonstrate equivalent Arabic Proficiency Exam offered by LCC Department.

Arabic (ARBC)

COURSE OFFERINGS

ARBC 101  Beginning Arabic I  
4.000 Credits

First course in the two-course elementary Arabic sequence. Listening comprehension, speaking, reading, writing, and culture are emphasized. Course materials promote the use of language to communicate with others and function in Arabic culture. (F,W,S).

ARBC 102  Beginning Arabic II  
4.000 Credits

Prerequisites: ARBC 101 or MCL 101 or APL 102 or APL 201 or APL 301 or APL 302

Second course in the two-course elementary sequence. Continued emphasis on culture and the four skills of listening, speaking, reading, and writing. (F,W,S).

ARBC 201  Intermediate Arabic I  
4.000 Credits

Prerequisites: ARBC 102 or MCL 102 or APL 201 or APL 202 or APL 301 or APL 302

An intermediate-level course designed to increase proficiency in listening, speaking, reading, and writing in a cultural context. Emphasis is placed on acquiring new vocabulary and expanding the use of grammar structures. (YR).

ARBC 202  Intermediate Arabic II  
4.000 Credits

Prerequisites: ARBC 201 or MCL 201 or APL 202 or APL 301 or APL 302

Second course in the two-course intermediate Arabic sequence. Continued emphasis on the development of the four skills of listening, speaking, reading, and writing.

ARBC 301  Higher Intermediate Arabic I  
3.000 Credits

Prerequisites: ARBC 202 or APL 300 or APL 302

This course is designed for students who have already had the equivalent of four semesters of Arabic instruction. The course emphasizes the four language skills with specific attention to the productive skills, oral and written. The course introduces authentic reading materials drawn from different disciplines such as religion, literature, history, and politics, reflecting different styles of Arabic and different periods. (F)

ARBC 302  Higher Intermediate Arabic II  
3.000 Credits

Prerequisites: ARBC 301 or APL 301 or APL 302

A continuation of ARBC 301. It continues to develop the four language skills with specific attention to the productive skills, oral and written. The course introduces authentic reading materials drawn from different disciplines such as religion, literature, science, politics, reflecting different styles of Arabic and different periods. (W, YR)

ARBC 303  Advanced Arabic  
3.000 Credits

Must be enrolled in one of the following Classes:

- Senior
- Sophomore
- Freshman
- Junior

Prerequisites: ARBC 302

This course is an introduction to narrative traditions in Arabic through the close readings of a variety of essays. It is designed to give students experience in reading specialized short texts including modern Arabic literature and the social sciences. Each session will be organized around a particular author, genre, theme, or period, including the novel, political essay, the short story, historical prose, drama, and film, with special emphasis on the Arabic literature of Egypt and the Levant.

ARBC 305  Language of Business  
3.000 Credits

Prerequisites: ARBC 301

An introduction to the language and cultural practices of the Arab world of business. Particular emphasis will be placed on learning the terminology used in typical business correspondence and documents related to the world of finance, investment, import, and export, and commerce. A variety of businesses will be examined and opportunities for practice in reading and composing business letters will be provided. (W, AY)

ARBC 331  Survey of Arabic Literature  
3.000 Credits

Prerequisites: ARBC 301

Arabic 331 surveys selections from writings in Arabic prose literature (maqama, novel, short story) and poetry that reflect the intellectual, literary and cultural development of the Arabs from pre-Islamic times, up to the present. The course will also explore the social, political, and cultural changes in the Middle East and the development of modern Arabic literary forms.
ARBC 332  Arabic Cinema  
3.000 Credits  
Prerequisites: ARBC 301

The course examines the development of Arabic cinema in its socio-cultural contexts through a range of selected films. It covers the different cinematic genres, prevalent themes and diverse trends and schools across the spectrum of Arab countries including Egypt, Tunisia, Lebanon, Morocco, and Palestine. The course elaborates on the careers of film directors and their approaches to film making and to the cultural issues of their time. The course will be conducted in Arabic.

ARBC 335  Arabic Civilization  
3.000 Credits  
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior  
Prerequisites: ARBC 302

This course gives students an appreciation of Arabic civilization through the study of excerpts from the masterworks of the literary and intellectual Arabic heritage. It provides practice in reading pre-modern and modern classical Arabic texts drawn from a variety of intellectual disciplines.

ARBC 350  Arabic Literature and Culture  
3.000 Credits

An introduction to the literature and other art forms of the modern Arab world in cultural and historical context. Topics include the Arab world-view, religious attitudes and self-expression, and ethnicity and gender. The course assumes no prior knowledge of the region. All readings will be English translation. (YR).

ARBC 351  Contemporary Arabic Literature  
3.000 Credits  
Prerequisites: ARBC 301

This course will explore the literary works of contemporary Arab writers from countries such as Iraq, Lebanon, Palestine, Algeria, France, and the U.S. Although the course covers a variety of literary genres such as the short story, memoirs, and poetry, it puts special emphasis on the Arab contemporary novel. It also provides an in-depth critical analysis of major themes dealt with by authors in their works such as identity, minority, gender, nationality, war, family, ethnicity, religion, homeland and home, politics, society and culture. Major historical, political, social, cultural, artistic and literary factors shaping and driving contemporary Arabic literary writings today also will be thoroughly examined. The course will feature films and documentaries in addition to internet-based activities.

ARBC 390  Topics in Arabic  
3.000 Credits

Examination of problems and issues in selected areas of Arabic. Title as listed in Schedule of Classes will change according to content. Course may be repeated when specific topics differ. (OC).

Art, Applied  
(not a major or field of concentration, see Applied Art)

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**Art History**

Art History may be elected as a major program within the Department of Literature, Philosophy, and the Arts. The art history program offers the student practical, critical, and historical studies in architecture, sculpture, painting, the decorative arts, printmaking, and photography. Each art is considered a creative process which, like language, has developed as an expression of human ideas, emotions, and life conditions. The history of these arts is presented as a visual record of the evolution of human societies, which can give the student a valuable introduction to the various world civilizations.

Students may elect one of two major tracks in Art History: Track A – Art History, or Track B – Museum Studies. The major programs offer the student a broad humanistic education within the context of an undergraduate degree and prepare the student for graduate work in academic, museum, or commercial fields.

**PREREQUISITES TO THE MAJOR............................. 9 hrs**

Students majoring in Art History (Track A) or Museum Studies (Track B) are required to take the following prerequisites:

ARTH 101  Western Art to 1400  
ARTH 102  Western Art since 1400  
ARTH 103  Arts of Asia

**MAJOR REQUIREMENTS ...................................... 27 hrs**

**Track A: Art History required courses .................... 27 hrs**

One course from each of the following areas.............. 15 hrs.

Asian/Non-Western (ARTH 311, 312, 313, 315, 384, 385, 416)  
Ancient/Classical (ARTH 319, 321, 322, 327, 425, 426, 427, 428)  
Medieval (331, 332, 333, 334, 335)  
Renaissance/Baroque (341, 342, 343, 344 351, 352, 434, 454)  
Modern (360, 361, 362, 363, 364, 365, 366, 367, 368, 375, 469)

Also required......................................................... 6 hrs  
ARTH 400  Senior Seminar  
ARTH 410  Museum Practice Seminar

**Art History Electives....................................... 6 hrs**

Any two upper-level Art History courses (except ARTH 398 and 399)

**Cognates....................................................... 6 hrs**

One studio art course (ARTH 201, 202, 204, 206, 306, 321, 322, 323, 324, 332, 360) and one upper-level course from the following disciplines: ARBC, ART, COMM, ENGL, FREN, GER, GLOC, HIST, HUM, JASS, LING, MCL, MHIS, PHIL, POL, SPAN, SPEE, WGST (excluding courses that cross list with ARTH and POL 494, 495, 496, 497).

**Track B: Museum Studies required courses .......... 27 hrs**

One course from each of the following four areas.......... 12 hrs.

Asian/Non-Western (ARTH 310, 311, 313, 315, 370, 384, 416)  
Medieval/Classical (ARTH 319, 321, 322, 327, 331, 332, 333, 334, 335, 425, 426, 427, 428)  
Renaissance/Baroque (ARTH 341, 342, 343, 344, 346, 351, 352, 434, 454)  
Modern (ARTH 360, 361, 362, 363, 364, 365, 366, 367, 368, 375, 469)
Also required ................................................................. 9 hrs
ARTH 400  Methods Seminar
ARTH 410  Museum Practice Seminar I
ARTH 411  Museum Practice Seminar II

Art History Electives .................................................. 6 hrs
Any two upper-level Art History courses. (except ARTH 398 and 399)

Cognates ................................................................. 6 hrs
HUM 485 Internship .................................................... 3 hrs

AND
One upper-level course selected from the following............. 3 hrs
OB 354  Behavior in Organizations
JASS 330  Feature Writing
COMM 360  Social Media for Public Relations
COMM 420  Critical Media Studies
COMM 440  Writing for the Organization
COMM 460  Public Relations Campaigns
PSYC 4305  Organizational Psychology

Portfolio Requirement: A portfolio is required for Art History
(Track A) or Museum Studies (Track B). The portfolio must be
approved by the faculty advisor and will consist of one paper
from ARTH 400, one paper from ARTH 410, and one additional
paper from another upper level ARTH course taken at UM-
Dearborn. There is also an exit interview questionnaire. See the
faculty advisor for more details.

Foreign Languages
Although competency in a foreign language is not required for
the major, a reading proficiency in French and/or German is
extremely important for anyone planning to pursue the study of
Art History. Most graduate programs in Art History require at
least two foreign languages.

NOTES:
1. A maximum of 44 hrs. in ARTH courses may count in
the 120 credits required for graduation.
2. At least 15 of the 27 upper level hours in ARTH must
be elected at UM-Dearborn.
3. ARTH 398 and 399 cannot be used in the major.

MINOR OR BGS/LIBS AREA OF FOCUS
A minor or area of focus consists of 12 hours of upper-
level credit in art history.

Art History (ARTH)
COURSE OFFERINGS

ARTH 101  Western Art to 1400
3.000 Credits
An introduction to the history of art from the prehistoric era to
the end of the middle ages. Using a broadly chronological
structure, the course surveys changes in the style and substance
of western (European) art in this period. The course also
explores the connection between art and culture, and notes the
many interrelationships between the cultures that have formed
the western tradition. (F,W).

ARTH 102  Western Art from 1400
3.000 Credits
A historical survey of western painting and sculpture from the
Renaissance through the twentieth century. (F,W).

ARTH 103  Arts of Asia
3.000 Credits
An introduction to the visual arts of three Asian civilizations:
India, China, and Japan. Since this is a survey, the focus will be
placed on major monuments that are characteristic of these
artistic traditions. In order to better understand the works of art,
the cultural milieu including religion, philosophy, and parallel
arts will be considered. (YR).

ARTH 104  Arts of the Middle East
3.000 Credits
From the eighth century, a new religious community with no
developed artistic heritage spread rapidly over the ancient
empires of the near and middle east and as far west as Spain and
Hungary. Appropriating established forms and traditions,
Muslim cultures created a brilliant system of religious and
secular art that reveals national diversity and an underlying unity
of purpose. This course provides an introduction to the visual
traditions of Muslim cultures. (YR).

ARTH 105  Creation of Art
2.000 Credits
An art appreciation course based on videotapes. Great art does not
completely yield its secrets. The course helps the student to
understand the subject, the message or content of the creation and
the method that the artist used in making it. This course does not
fulfill the Art History concentration requirement. (F,W).

ARTH 106  History of Western Architect
3.000 Credits
An introduction to the place of architecture in western culture.
The course treats architecture as the "mother of the arts" and
explores how buildings are perceived today and in the past, and
why enormous amounts of money and time were spent on them.
Structure and aesthetics will also be discussed, both in relation
to individual buildings and to their broader urban context. (YR).

ARTH 107  Detroit Study
3.000 Credits
This course is an attempt to define a modern cultural history of
Detroit. Taught by two faculty members, the emphasis of the
course will vary but the following aspects of the city's cultural
history will be covered Some detail: its literature, arts, music
and architecture; its social conditions and broader American
cultural context.

ARTH 311  Art of China
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or
ARTH 104 or ARTH 106
An introduction to representative works of art produced in China
from the Neolithic era down to modern times. Examination of
the artifact's cultural context will be emphasized, including the
study of philosophy (Confucianism and Daoism) and religion
(Buddhism).

ARTH 312  Art of Japan
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or
ARTH 104 or ARTH 106
An introduction to representative works of art produced in Japan
from the Neolithic era down to modern times. The artifact's
cultural context will be examined including religious practice
(Shinto and Buddhism), influence from abroad, and other artistic
developments in literature, music, and theatre.
ARTH 313  Chinese Painting  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course is a survey of the painting of China from the earliest examples found in tombs through works influenced by the West during the modern period. The course focuses on selected artists who serve as representatives of major traditions of China's cultural and artistic heritage. Students will be introduced to Chinese philosophy and relevant literary genres that provide a context for the development of Chinese painting.

ARTH 315  Early Chinese Art and Archaeol  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

An examination of the art and architecture of early China (Neolithic through Eastern Han). Recent excavations that have significantly changed our view of the early period will be given emphasis. Students will analyze relevant literary and philosophical texts in translation to enhance understanding of the cultural context. (OC).

ARTH 319  Egyptian Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

The art of the Ancient world is examined through an intensive review of the visual traditions of Egypt: its monumental architecture, sculpture, painting and decorative artifacts. (AY).

ARTH 321  Greek Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course surveys the history and art of Crete, the Cyclades, and Greece from the third millennium through the first century B.C. In the prehistoric period, the course will focus on both architectural and ceramic developments, as well as on the trade and economic contacts between Asia Minor and Greece. In the historic period, the course considers the major artistic developments in architecture, sculpture, and painting, focusing on how social, political or historical events caused these art forms to evolve and change over the centuries. (AY).

ARTH 322  Roman Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course surveys the major art forms produced by both the Romans and Etruscans. The course begins with the Roman Republic (late sixth century B.C.) and concludes with the rule of Constantine in the fourth century A.D.). We will discuss the development of the urban, government complex (the Roman Forum), the evolution of domestic architecture, and the major artistic achievements in sculpture, painting, and the minor arts. We will focus on how social, economic, religious, political and/or historical events caused these art forms to evolve and change over the centuries. (AY).

ARTH 327  Myth & Ritual in Classical Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 105

Polytheistic, multicultural religious practices shaped Greek and Roman culture and society. This course examines the main deities, myths, rituals and sanctuaries of the ancient Mediterranean through the study of art, architecture, texts and archaeology. Freestanding sculptures, relief sculptures, vase paintings, wall paintings, mosaics, coinage, altars and temples will be analyzed.

ARTH 331  Early Christian Byzan Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

Borrowing its formal language from late antiquity and its symbolism from other mystery cults, the art of early Christianity emerged from the Roman catacombs to monumental expression under emperors Constantine and Justinian. (AY).

ARTH 332  Early Med and Romanesque Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A study of the dynamic interplay between barbarian, Christian and classical Mediterranean influences in the early Medieval period with a consideration of the art and architecture of the pilgrimage routes to Santiago de Compostela and of the crusader kingdoms in the Holy Land. (AY).

ARTH 333  Gothic Art and Architecture  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A survey of the architecture, sculpture and stained glass of the great cathedrals of Europe, focusing on Chartres, Amiens, Reims, and Bourges. A study of the patrons, builders, the new technology they employed and the cities in which they worked as well as an analysis of the emergence of naturalism in medieval manuscript illumination and panel painting. (AY).

ARTH 334  The 14th Century  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This is a course that examines the art and architecture of Europe in the 14th century: one of the great transitional periods in the history of western art. Beginning with the new developments in 13th-century Italian art by such artists as Giovanni Pisano and Giotto, the course charts the pattern of these developments in northern European countries as well. (OC).

ARTH 335  Women in Medieval Art  
3.000 Credits  
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

Women have often been regarded as the second sex of the middle ages due to the misogynistic attitudes of that era. Recent scholarship, however, has unearthed a significantly more complex picture. Through a study of visual representations of women in medieval art, this course will examine women's roles in the creation and patronage of art and literature, economic and family issues, and women's participation in new and innovative forms of religious piety.
ARTH 341  Art&Arch in Early Ren Florence
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103

This course examines the city of Florence as a work of art, as well as masterpieces of Florentine sculpture, painting and architecture of the Early Renaissance (fifteenth century). Among the masters studied are the sculptors Nanni di Banco, Donatello, Ghiberti, Luca della Robbia, Pollaiuolo, and Verrocchio; the painters Masaccio, Fra Angelico, Fra Filippo Lippi, and Botticelli; and the architects Brunelleschi, and Alberti. Statuary, reliefs and tombs; altarpieces, fresco cycles and mythological pictures; churches and palaces are all studied within the context of the technical, philosophical, political and cultural developments of the quattrocento. The ideals of the Florentine Republic, Humanism, Neo-Platonism, and Millenarianism provide the historical and intellectual background for the study of these works of art and architecture. Issues of patronage, placement, restoration, art criticism, women's roles in society and reception will also be explored. (OC).

ARTH 342  High Renaissance and Mannerism
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106


ARTH 343  Northern Renaissance Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A survey of the art which arose amid the conflicts of late medieval mysticism and Renaissance humanism in 15th- and 16th-century Germany and the Netherlands with emphasis on the works of Van Eyck, Durer, Grunewald, Bosch, and Bruegel. (AY).

ARTH 344  Italian Renaissance Sculpture
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A study of freestanding and relief sculpture during the Italian Renaissance, with particular attention to major artistic centers like Florence, Rome, and Venice in the 15th and 16th centuries. By examining such forms as colossal statuary, equestrian sculpture, tomb monuments, garden sculpture, and portrait busts, the course will address the function of art within the public sphere, the relationship between civic sculpture and political ideology, the elevation of sculpture from a mechanical art to a liberal art, and the role artistic individuality and technical proficiency. Artists addressed will include Donatello, Ghiberti, Verrocchio, Antico, Riccio, Bertoldo, Michelangelo, Cellini, and Giambologna.

ARTH 351  Southern Baroque Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A study of the art of the seventeenth century in Italy and Spain, focusing upon Caravaggio, Annibale Carracci, Guercino, Reni, Cortona, Gaulli, Murillo, Zurbaran, and Velasquez, among others. (OC).

ARTH 352  Northern Baroque Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

Study of the art of the seventeenth century in France, Flanders and Holland, with emphasis on Poussin, Georges de la Tour, the Le Nain brothers, Lebrun, Rubens, Van Dyck, Van Ruisdael, Vermeer, and Rembrandt. (OC).

ARTH 360  Art of Glass
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course focuses on glass as a medium and an art form. From Roman times to the present day, the unique qualities of glass have excited artists and craftsmen to make vessels, sculptures, and architectural ornamentation. The course traces the form and function of glassworks, focusing particularly on the historical trajectory of glass from ancient vessels and medieval stained glass, to the development of "art glass" in the nineteenth century, to contemporary objects. The course is based on lectures, discussion, and readings. Students are required to attend several fieldtrips for "hands-on" work with objects. Enrollment is limited to 15 students.

ARTH 361  American Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A study of American painting, sculpture, and architecture from the colonial period to the present. In this survey of an arts tradition that has greatly depended upon developments in Europe, efforts will be made to identify what is American about American art. (AY).

ARTH 362  Impressionism and Post-Impress
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

An examination of the origins of modern painting and sculpture in the art of the major Impressionists (Manet, Monet, Degas, Renoir) and Post-Impressionists (Cezanne, Seurat, Gauguin, Van Gogh). (OC).

ARTH 363  Arts of the Twentieth Century
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A contextual study of twentieth-century art that seeks to define the relationships between western art and society. In addition to a consideration of painting, sculpture, and architecture, the emergence of new media- including altered and fabricated photography, video, and installation art - will be examined. Although a broad survey of a century rich in artistic achievements, the course will emphasize the dominance and influence of Pablo Picasso, Henri Matisse, and Frank Lloyd Wright. (AY).

ARTH 364  Picasso
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106
A critical examination of Pablo Picasso's art that chronicles the artist's achievements as a painter, sculptor, draftsman, printmaker, and ceramist. Lectures and readings are directed to positioning Picasso's masterworks in relationship to his art as a whole and in the context of twentieth-century art. (AY).

**ARTH 365 Modern Architecture**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A survey of European and American architecture from the Chicago School to Post-Modernism. The course will trace the stylistic history of modern architecture while considering parallel issues of theory, social context, and building technology. Major architects studied will be Sullivan, Wright, Mies van der Rohe, Le Corbusier, and Johnson. (AY).

**ARTH 366 The Modern Print**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

A history of western printmaking from Post-Impressionism to the present. The course will examine the relationship of printmaking to major movements of the day, the impact of modern technology on traditional print processes, and the developing notion of printmaking as an integral form of expression for the modern painter and sculptor. Special emphasis will be placed on the contributions of Gauguin, Munch, Picasso, Johns, and Stella. (OC).

**ARTH 367 Contemporary Art**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

An examination of the most recent developments in modern art. In addition to painting and sculpture, consideration will be given to related forms of expression in performance art, photography, and video. (OC).

**ARTH 368 American Photography**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course explores the history of photography, its aesthetics, and social functions in the United States, beginning with the medium's emergence in the 1830s and concluding with contemporary practices. Lectures and discussions will attend to several threads of inquiry: the history and theory of the medium and its interpretation; the diverse functions of photographs in American society; the relationship between photography and American identity formation; and the status of the photograph in a post-photographic, digital age.

**ARTH 375 Urban Design Perspectives**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course explores the ways in which urban design both creates and reflects past and present urban conditions, cultures, and spatial relationships. The course will look at the built environment architecturally, aesthetically, and anthropologically in order to highlight the ever changing complexities of urban spheres. The placement and design of buildings and public spaces, and the resulting human interactions in those spaces, will be explored in comparative contexts.

**ARTH 384 Islamic Architecture**
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 105

This course is a comprehensive study of history and development of Islamic architecture from its birth in the seventh century to the present time. The course is designed to explain major characteristics of Islamic architecture through the study and analysis of major monumental buildings both religious and secular: Mosques, Madrasas (schools), Mausoleums, Palaces, and other buildings. Detailed analysis also will be applied to different types of art associated with these buildings, such as wall painting, stucco work, wood carving, sculpture, mosaic, and calligraphy.

**ARTH 385 Islamic Decorative Arts**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or RELS 201

This course in an in-depth investigation of the decorative arts of the Islamic Middle East from the seventh through the eighteenth century including the lands of Islamic Spain and North Africa and extending east to Afghanistan. The course traces the development of decorative styles in objects of daily and courtly life, particularly ceramics, metal work, glass, wood and ivory carving, textiles and rugs. The central role played by calligraphy in all of the arts is emphasized as well as in manuscript production and the Arts of the Book. As a religion, but also a way of life, Islam fostered a distinctive artistic production reflected in these decorative arts.

**ARTH 390 Topics in Art History**
3.000 Credits
Examination of problems and issues in selected areas of art history. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when topics differ. (OC).

**ARTH 399 Independent Studies**
1.000 TO 3.000 Credits
Readings and research assignments in history of art selected in accordance with the special needs and interests of art history concentrators. May be repeated for a maximum of 6 credit hours. (F,W).

**ARTH 400 Senior Seminar**
3.000 Credits
Prerequisites: ( ARTH 304 or ARTH 305 or ARTH 310 or ARTH 311 or ARTH 312 or ARTH 313 or ARTH 315 or ARTH 319 or ARTH 321 or ARTH 322 or ARTH 331 or ARTH 332 or ARTH 333 or ARTH 334 or ARTH 342 or ARTH 343 or ARTH 346 or ARTH 351 or ARTH 352 or ARTH 361 or ARTH 362 or ARTH 363 or ARTH 364 or ARTH 365 or ARTH 366 or ARTH 367 or ARTH 370 or ARTH 390 or ARTH 392 or ARTH 393 or ARTH 410 or ARTH 411 or ARTH 416 or ARTH 425 or ARTH 426 or ARTH 454 ) and ( ARTH 304 or ARTH 305 or ARTH 310 or ARTH 311 or ARTH 312 or ARTH 313 or ARTH 315 or ARTH 319 or ARTH 321 or ARTH 322 or ARTH 331 or ARTH 332 or ARTH 333 or ARTH 334 or ARTH 342 or ARTH 343 or ARTH 346 or ARTH 351 or ARTH 352 or ARTH 361 or ARTH 362 or ARTH 363 or ARTH 364 or ARTH 365 or ARTH 366 or ARTH 367 or ARTH 370 or ARTH 390 or ARTH 392 or ARTH 410 or ARTH 411 or ARTH 416 or ARTH 425 or ARTH 426 or ARTH 454 )
An introduction to art-historical research methods. The art historian's central task of interpretation is explored by considering the critical perspectives of connoisseurship, iconography, formal analysis, iconology, and modern literary theory. (OC).

**ARTH 410  Museum Practice Seminar I**
3.000 Credits
Prerequisites: ( ARTH 304 or ARTH 305 or ARTH 310 or ARTH 311 or ARTH 312 or ARTH 313 or ARTH 315 or ARTH 319 or ARTH 321 or ARTH 322 or ARTH 331 or ARTH 332 or ARTH 333 or ARTH 334 or ARTH 342 or ARTH 343 or ARTH 346 or ARTH 351 or ARTH 352 or ARTH 361 or ARTH 362 or ARTH 363 or ARTH 364 or ARTH 365 or ARTH 366 or ARTH 367 or ARTH 370 or ARTH 390 or ARTH 392 or ARTH 400 or ARTH 411 or ARTH 425 ) and ( ARTH 304 or ARTH 305 or ARTH 310 or ARTH 311 or ARTH 312 or ARTH 313 or ARTH 315 or ARTH 319 or ARTH 321 or ARTH 322 or ARTH 331 or ARTH 332 or ARTH 333 or ARTH 334 or ARTH 342 or ARTH 343 or ARTH 346 or ARTH 351 or ARTH 352 or ARTH 361 or ARTH 362 or ARTH 363 or ARTH 364 or ARTH 365 or ARTH 366 or ARTH 367 or ARTH 370 or ARTH 390 or ARTH 392 or ARTH 400 or ARTH 411 or ARTH 425 )

The course explores problems encountered in the field of art administration. Students will attend lectures given by art administrators and curators of local institutions and will be involved in the planning, organization, and presentation of an actual exhibition. (YR).

**ARTH 411  Museum Practice Seminar II**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course is an introduction to museum studies. Students explore the history and missions of museums, and the role of museums in shaping public discourses on art. They also study current issues related to museum practice, including collection development, repatriation of cultural property, conservation, administration, research, exhibition and interpretation. Field trips to area institutions are scheduled so students can meet museum and gallery professionals in order to consider career opportunities available in this context.

**ARTH 416  Earl Mod Jpn Paint&Wood Prnts**
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103

Paintings and woodblock prints of the Edo/Tokugawa (1600-1868) and Meiji (1868-1912) periods are considered in light of competing developments that on the one hand looked to Japan’s classical tradition and on the other to the influence of art and artists from China and the West. Special attention is given to female artists and images of women. Students cannot receive credit for both ARTH 416 and ARTH 516. (OC).

**ARTH 425  Women in Classical Antiquity**
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

This course examines the evidence for the lives of women in Greek, Etruscan and Roman Antiquity, from the Bronze Age through the Imperial Period. Special emphasis will be placed on the archaeological evidence, especially works of art which illustrate women’s lives and their relationships with men. Documents such as dedicatory and funerary inscriptions, the poetry of Sappho and Sulpicia, and selections from the writings of Homer, Hesiod, Aristotle, Pliny, Juvenal, and other ancient authors, will also be examined critically, particularly in relationship to the works of art. Students cannot receive credit for both ARTH 425 and ARTH 525. (YR).

**ARTH 426  City of Ancient Rome**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103

This course will focus on the ancient city of Rome, from its foundation to its precipitous decline in the fifth century AD. It will explore the public art and architecture of the city, emphasizing the different types of evidence available (topography, architecture, sculpture, texts) for understanding the history, politics, religion, and urban development of Rome, as well as the various art historical and archaeological techniques used to analyze the evidence. (OC)

**ARTH 427  Greek Architecture**
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

The architectural vocabulary established during the centuries of classical Greek civilization influences our culture to the present day. This course explores the history and development of this fundamental architectural tradition, focusing on the Greek temple, sanctuaries and holy sites, urban planning and public works, and domestic space. Students discuss the philosophical underpinnings of Greek architectural design, the engineering practices of Greek builders, as well as the cultural and social influences on Greek buildings and cities. This course begins with the emergence of humble mudbrick and timber buildings from the Dark Ages and continues through the height of cosmopolitan urban luxury in the 2nd century AD.

**ARTH 428  Roman Art and Memory**
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

In this course, we examine Roman art closely associated with personal commemoration and cultural memory, including portraiture, funerary monuments, imperial monuments, and public architecture. We explore these objects’ relationship to Roman literary cultures theories of mnemotechnics, and in the social context of the Roman obsession with memory perpetuation. We also examine how art historians apply modern theories of collective and social memory in their scholarship on Roman art, creating new ways of understanding Roman sculpture, painting,
and architecture. Finally, we investigate Roman spectacle and performance as a vehicle of cultural memory. Students cannot earn credit for both ARTH 428 and ARTH/LIBS 528.

ARTH 434 Renaissance and Baroque Rome
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

The return of the papacy in 1420 initiated the reemergence of Rome as a major cultural center. This course examines painting, sculpture, architecture, and urban planning in Rome from the 15th to the 17th century, including the work of Raphael, Michelangelo, Bernini, Borromini, and Caravaggio. Topics to be explored include the birth of Renaissance archaeology and antiquarianism; humanism and the papal curia; urban renewal and conservation; pilgrimage and sacred topography; the myth of Rome; architecture of churches, villas, and palaces; tourism and the city as spectacle. This course is structured as a seminar that is writing and research-intensive.

ARTH 454 Rembrandt
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

Rembrandt's paintings, drawings, and prints are considered in the full historical and cultural context of the Golden Age of the Northern Netherlands, a period of unprecedented wealth and cultural diversity. Special attention will be given to issues of style, iconography, biography, art criticism, gender, patronage and artistic technique. Students cannot receive credit for both ARTH 454 and ARTH 554. (YR).

ARTH 469 Collage, Montage, Assemblage
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

Different conceptions of collage, montage, and assemblage have vitally shaped artistic practice in the twentieth century, perhaps even more so than the advent of modernist abstraction. The modern phenomenon of collecting, mixing, and sampling that permeates the last century up to and including the contemporary moment will be traced in the class across the thresholds of painting, sculpture, architecture, photography, and film. We will discuss a wide range of movements, genres, and styles (Cubism, Futurism, Surrealism, Dada, Weimar and Russian photomontage, Soviet film, found footage film, French decollage, postwar assemblage) and their relation to the ever-changing mass media, the urban, and the modernized – in short, the everyday. The last segment of the class addressed more recent interpretations of the collage paradigm, including installation art and digital applications. Student cannot receive credit for both ARTH 469 and ARTH 569.

Astronomy

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

A minor or area of focus consists of the following: Prerequisite of ASTR 130 and 131 and 12 hours of upper-level credit consisting of PHYS 305 (3 hours) plus 9 hours of upper-level credit in astronomy (ASTR). Up to 3 credit hours in ASTR 495, 498 and/or 499 may be applied to the completion of the minor or area of focus.

Astronomy (ASTR)

COURSE OFFERINGS

ASTR 130 Introduction to Astronomy
3.000 Credits
A one-term introduction for those interested in learning about the present state of knowledge of the Universe, its origin, evolution, organization, and ultimate fate. Exciting new discoveries concerning extrasolar planets, star birth, supermassive black holes, dark matter/dark energy, and cosmology are discussed. Two years of high school math or its equivalent recommended.

ASTR 131 Introductory Astronomy Lab
1.000 Credits
Prerequisites: ASTR 130 * or PHYS 130

An introduction to some of the important observational techniques and analytical methods used by astronomers. Ground-based and satellite data will be used to reveal physical and chemical properties of the moon, planets, stars, and the Milky Way. Outdoor exercises involving telescopic observation of the sun, variable stars, nebulae, and external galaxies are also included. Constellation identification will be taught using off-campus planetarium facilities.

ASTR 330 The Cosmic Distance Scale
3.000 Credits
Prerequisites: (ASTR 130 or PHYS 130) and (PHYS 126 or PHYS 151)

An exploration of the cosmic distance ladder focusing on the systems and techniques that astronomers use in establishing the distances to celestial objects. Direct measures using radar ranging and trigonometric parallax will be discussed for objects in the solar system and for stars within about 3000 light-years of the Sun, respectively. For more remote systems in or just outside the Milky Way, methods based spectroscopic parallax and the period-luminosity relation for various types of variable stars will be introduced. For the extra-galactic objects, use of the Hubble relation and the light curves of Type Ia supernovae will be made to assess the distances. At each rung of the ladder, emphasis will be placed on the astrophysical principles and processes underlying the methodology being applied. 3 hours lecture.

ASTR 361 Observational Techniques
3.000 Credits
Prerequisites: (ASTR 130 or PHYS 130) and (ASTR 131 or PHYS 131) and (PHYS 126 or PHYS 151)

This course is designed to provide students with an understanding of some of the basic observational techniques used by astronomers in gathering and analyzing data from celestial objects. Practical experience in acquiring, displaying, and interpreting optical and radio observations using the University's 0.4-m telescope and 2.3-m radio dish will be emphasized. Topics will include astronomical coordinate system and timekeeping, telescope optics, the design and use of CCD detectors, fundamentals of multi-color photometry, an introduction to astronomical spectroscopy, and radio measurements of the Sun and interstellar hydrogen clouds at 21-cm wavelengths. (2 hours lecture, 3 hours laboratory)
ASTR 390  Topics in Astronomy  
3.000 Credits  
Prerequisites: ASTR 130 or PHYS 130  
A lecture in a topic of current interest in astronomy. Topics vary and are announced in the current Schedule of Classes. Three hours lecture.

ASTR 421  Stellar Astrophysics  
3.000 Credits  
Prerequisites: PHYS 305 and (MATH 205 or MATH 215)  
An application of important physical principles to stars and star clusters. Topics will include gravitational collapse and star formation, radiative transfer and stellar atmospheres, nucleosynthesis and the structure of normal stars, degeneracy and the endpoints of stellar evolution, and general relativistic effects in the vicinity of black holes. 3 hour lecture.

Behavioral Sciences  
The major in Behavioral Sciences is an interdisciplinary program encompassing the disciplines of anthropology, psychology, and sociology. It is designed as a general preparation for a career in human services such as social work, counseling, criminology, or prevention/treatment programs in mental health. The idea for combining the three fields is based on the belief that it is important for an individual who plans to work with people to understand human beings as individuals (psychologically) who function in groups (social psychologically) within a social context (sociologically) which varies across cultures (anthropologically). These disciplinary perspectives offer different but complementary views of people. In order to understand, predict, or influence human behavior, one needs some comprehension of how humans develop, the problems they confront, the organization or structure in which they function, and how and why these go awry. It is also critical to have some exposure to the methods employed by behavioral scientists and some actual experience in the working world of the human services.

To enroll in this program, a student must develop a list of courses which are appropriate for her/his career goals or interests and which satisfy the requirements listed below. This list should be prepared in consultation with, and approved by, the Behavioral Sciences advisor, Roger Loeb. The major encourages specific vocational tracks shaped to the student’s career goals. Specific career and appropriate course selection advice is available as follows: Administrative/Management (McKenna, Radine, Waung), Adulthood and Aging (Aronson, Sethuaram, Whitehead), Children and Families (Aronson, Forsythe-Brown, Sethuaram, Sheldon), Community Organizations (Chatkoff, Hymes, McKenna), Clinical/Counseling (Chatkoff, Leonard, Loeb, Sieiert, Wrobel), Health (Chatkoff, Draus, McAuslan, Martin, Straub), Individual and Society (Draus, Forsythe-Brown, Gruber, Lempert).

PREREQUISITES TO THE MAJOR  
The major requires the student to take introductory-courses in:  

| ANTH 101 | Introduction to Anthropology |
| PSYC 170 | Introduction to Psychology as a Natural Science |
| **OR** | |
| PSYC 171 | Introduction to Psychology as a Social Science |
| SOC 200 | Understanding Society |
| **OR** | |
| SOC 201 | Contemporary Social Problems |

MAJOR REQUIREMENTS  
The major also requires a minimum of 39 upper-level (300/400; 3000/4000 level) credits in the Behavioral Sciences including at least three courses in psychology, three in sociology, and two in anthropology. These courses must also include one course from each of the following categories:

**Methods**  
ANTH 470; PSYC 415, 425, 4445; SOC 410, 411, 413

**Normal/Abnormal Personality**  
ANTH 482; PSYC 440, 441, 442, 450; SOC 436, 465.

**Human Development**  
ANTH 415; PSYC 300, 302, 315, 407, 412; SOC 426, 445.

**Health/Biological**  
ANTH 325, 409, 430, 435, 459; HPS 336, 430; PSYC 446, 455; SOC 440.

**Gender**  
ANTH 303, 412, 481; HPS 336; PSYC 405; SOC 409, 461.

**Social Class/Economics**  
ANTH 376; SOC 350, 423, 435, 450, 477.

**Race/Ethnicity/Culture**  

**Groups and Interpersonal Relationships**  
PSYC 320, 322, 325, 421, 3955; SOC 446, 447, 4045.

**Societal Issues**  
ANTH 421; PSYC 4305; SOC 350, 445, 446, 447, 466, 469.

**Social Structure**  
ANTH 376, 420; CRJ 468; SOC 423, 426, 457, 460, 467, 473, 477, 483.

**Internship**  
PSYC 485; CRJ 478.

Six credits of additional upper level courses from ANTH, PSYC and SOC to complete a total of 39 credit hours for the major.

NOTES:  
1. PSYC 485 or CRJ 478 must be elected at UM-Dearborn.  
2. At least 24 of the 39 upper level hours in ANTH, PSYC, and SOC for the Behavioral Science major must be elected at UM-Dearborn.  
3. Many courses are cross listed between the ANTH, PSYC and SOC disciplines. Be sure to consult the Schedule of Classes for cross listed classes.  
4. Any one course may be used to satisfy only one requirement within the major.  
5. A maximum of 48 credit hours in any one discipline (ANTH, PSYC, SOC) is allowed toward degree.

HONORS PROGRAM IN BEHAVIORAL SCIENCES  
Behavioral Science students are eligible for the Honors Program which provides special opportunities for outstanding students, including a research training seminar, followed by independent research conducted in collaboration with faculty members. Students are accepted into the Honors Program early in their junior year. Prospective students should plan on completing the
statistics and methods requirements by their junior year. Requirements for entrance are 1) GPA of 3.2 or higher in behavioral science courses and overall UM-Dearborn courses, and 2) informal evidence of being a superior student, such as high motivation and ability to work independently. Requirements for graduation with honors in behavioral science are the successful completion of the following:

- fulfillment of all requirements for behavioral sciences major
- PSYC 381 Principles of Statistics and Experimental Design or SOC/MATH/STAT 363 Introduction to Statistics
- PSYC 481 Computers in Psychology, normally taken Fall term, senior year
- PSYC 498 (Honors Seminars) normally taken Winter Term, junior year
- PSYC 499 (Honors Research) normally completed during senior year
- Research Proposal meeting, normally completed early in senior year
- Final Oral Defense, completed at least one month prior to graduation

**Behavioral Sciences (BSCI) COURSE OFFERINGS**

**BSCI 325 Nonviolence and Violence**  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171

A study of the origins and consequences of violent and nonviolent behavior, and the application of violence to personal, social, national and international issues.

**Biochemistry**

Biochemistry bridges the biological sciences and chemistry. This degree program is thus designed to provide the student with an understanding of the structural and functional relationships between the chemical constituents of cells and their role in life processes. The requirements for the major include courses in biological sciences and chemistry, and appropriate courses in mathematics and physics. The degree in biochemistry prepares a student for careers in teaching, medicine, and research in industry or academia.

**PREREQUISITES TO THE MAJOR**

A solid background in mathematics is essential to success in any of the scientific disciplines. Incoming students who intend to choose a major in Biochemistry should have completed at least three years of high school mathematics. First year students should plan to enroll in MATH 105, MATH 115 or MATH 116 based on the results of their math placement tests. The CHEM 134 and CHEM 136 or CHEM 144 and CHEM 146 sequence is a prerequisite to many other courses in the Natural Sciences Department; students should complete this sequence as soon as possible.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 130 and 140</td>
<td>8 hrs</td>
</tr>
<tr>
<td>CHEM 134 and 136 General Chemistry</td>
<td></td>
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<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CHEM 144 and 146 General Chemistry</td>
<td>8 hrs</td>
</tr>
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</table>

**Related sciences**  
Minimum of 7 credit hours in upper level Biochemistry, Biology or Chemistry. At least one credit must be a laboratory (either lecture or lab, stand-alone lab course, or one credit hour of BCHM 495 or 499; or, CHEM 495 or 499)

Computational Skills (minimum of 3 credit hours)  
An upper level course or MATH (excluding MATH 385, 386, 387), STAT or CIS.

**NOTES:**

1. A maximum of 65 hrs. in BCHM, BIOL, CHEM may count towards the 120 hours for degree.
2. At least 12 of the 30 upper level hours must be elected at UM-Dearborn.
3. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

**HONORS DEGREE IN BIOCHEMISTRY**

To qualify for this honor, a student must maintain an overall grade point average of 3.5. The honors degree candidate must take six credit hours of independent study under BCHM 495, 498 or 499. Such a study will culminate in an oral and/or written presentation of the results. The Biochemistry Program Committee will evaluate the student's presentation.

**MINOR OR BGS/LIBS AREA OF FOCUS**

A minor or area of focus consists of 12 hours of upper-level credit in biochemistry.

**Biochemistry (BCHM) COURSE OFFERINGS**

**BCHM 352 Introduction to Toxicology**  
3.000 Credits  
Prerequisites: CHEM 225

An introduction to the principles of toxicology with an emphasis on environmental toxicology. Major topics include toxic agents, toxicological mechanisms, and use of toxicological reference literature. Discussion of chemical carcinogenesis, genetic toxicology, immunotoxicology, teratology, and toxic responses of the skin, eyes, and nervous system. Three hours lecture. (AY).
The techniques of preparative and analytical biochemistry. Preparation and characterization of lipids and carbohydrates. Methods in metabolism. Four hours laboratory. (W).

**BCHM 474 Molecular Biology**
4.000 Credits
Prerequisites: (BCHM 470 or CHEM 470 or BIOL 470) or (BCHM 370 or BIOL 370 or CHEM 370) and CHEM 227
Co-requisites: BCHM 474L

This course will emphasize the molecular biology of eukaryotes, and topics will include genome organization and complexity, chromatin structure and function, gene expression, DNA replication and repair, genetic rearrangements, and the molecular biology of development. The laboratory will emphasize the application of recombinant DNA technology to the study of biological problems. Three hours lecture, four hours laboratory. (W).

**BCHM 480 Biochemical Pharmacology**
3.000 Credits
Prerequisites: CHEM 370 or BCHM 370 or BIOL 370 or BCHM 470 or CHEM 470 or BIOL 470

Pharmacology is a study of drugs. In this course, the biochemical and molecular basis of drug action will be emphasized. Different categories of drugs, their use, abuse, and side effects will be presented. Three hours lecture. Permission of instructor. (OC).

**BCHM 490 Topics in Biochemistry**
1.000 TO 3.000 Credits

A course in special topics that examines research problems of current interest in biochemistry. Topics and format may vary. See current Schedule of Classes. One to three hours seminar. (W).

**BCHM 495 Off-Campus Research in Biochem**
1.000 TO 3.000 Credits

Participation in ongoing research at an off-campus laboratory. No more than 6 hours combined from any Natural Science courses numbered 495, 498, and 499 may be credited toward the 120 hours required for a degree. Four to twelve hours laboratory. Permission of concentration advisor. (F,W,S).

**BCHM 497 Seminar in Biochemistry**
1.000 TO 3.000 Credits

A seminar course that examines research problems of current interest in biochemistry. The course format may include training students to read and present scientific papers, guest lecturers, and lectures by the instructor on a selected topic. One hour seminar. Permission of instructor. (W).

**BCHM 498 Directed Reading in Biochem**
1.000 TO 3.000 Credits

Library research in a specific area of biochemistry performed under the direction of a faculty member. No more than six hours combined from departmental courses numbered 495, 498, and 499 may be credited toward the 120 hours required for a degree. Four to twelve hours readings. Permission of instructor. (F,W,S).
BCHM 499 Laboratory Research in Biochem  
1.000 TO 3.000 Credits

Directed laboratory research performed under the supervision of a faculty member. Research training is encouraged. No more than six hours combined from departmental courses numbered 495, 498, and 499 may be credited toward the 120 hours required for graduation. Four to twelve hours laboratory. Permission of instructor. (F,W,S).

**Biological Sciences**

Biology is an extensive field that covers biochemistry, molecular biology, cell biology, microbiology, genetics, anatomy, physiology, embryology, ecology, evolution, field biology, and animal behavior. The program is recommended for students who wish to study biology as part of an undergraduate liberal arts degree, to prepare for graduate study in biology or any of the health professions, or to study for a secondary teaching certificate in biology.

BIOL 130 and 140 are prerequisites for almost all upper-level biology courses and should be completed by students who intend to continue in biology. Other students should consider BIOL 100 or NSCI 120.

**MAJOR PREREQUISITE REQUIREMENTS:**

- BIOL 130 and BIOL 140
- CHEM 134 or CHEM 144 General Chemistry I  
  CHEM 136 or CHEM 146 General Chemistry II
- CHEM 225, 226 and 227 Organic Chemistry
- PHYS 125 and 126 (or PHYS 150 and 151)
- MATH 113 or MATH 115 Calculus I
- MATH 114 or MATH 116 Calculus II, or MATH/STAT 363 Intro to Statistics

Mathematics and chemistry are essential to success in biology and should be taken as early as possible. Chemistry and mathematics course serve as prerequisites for many biology courses.

**MAJOR REQUIREMENTS** ............................................ 30 hrs

At least 30 credit hours of 300/400; 3000/4000 level biological sciences courses.

Foundation courses:

- Genetics: BIOL 306 ................. 3 hrs
- Ecology: BIOL 304 ................. 4 hrs
- Evolution: BIOL 360 ................. 3 hrs
- Physiology: One course from:  
  BIOL 303 or 305 or 335 ...........4hrs
- Cell & Molecular: One course from:  
  BIOL 301 or 370 or 385 ..........3-4 h hrs

**Capstone Experience consisting of one of the following:**

- BIOL 491 Capstone Course in Biology .................. 3 hrs  
  or BIOL 492 Capstone Research Experience ............... 3 hrs  
  or BIOL 493 Capstone Teaching Experience ............... 3 hrs  
  or One of the following courses: BIOL 390K, 405, 419, 452, 490D, 508, 514 .............................................. 3 hrs

**Additional upper level (300+) biology courses to total a minimum of 30 credit hours ............................................. 8-10 hrs**

Students with interests in specific areas of biology are encouraged to consider the following options as they select the additional upper level (300+) biology courses needed to complete the major:


- Ecology and Evolution: BIOL 315, 320, 361, 337, 405, 414, 419, 490D.


- Plant Biology: BIOL 320, 333, 335, 337.

- Pharmacy: BIOL 305, 357, 370, 385.

- Pre-Medicine: BIOL 301, 303, 305, 310, 311, 312, 357, 370, 385, 390K, 430, 450, 452, 455, 459.

**NOTES:**

1. A maximum of 6 credit hours in BIOL 492, 493, 495, 497, 498 and 499 can be applied toward the 30 credit major requirement.

2. A maximum of 50 hours in biological sciences courses may be applied toward the 120-credit-hour total required for graduation.

3. In the 30 credit hours required for the major, students may use either BIOL/BCHM/CHEM 370 or BIOL/BCHM/CHEM 470 and/or 471.

4. At least 15 of the 30 upper level hours required in the BIOL major must be elected at UM-Dearborn.

**MINOR OR BGS/LIBS AREA OF FOCUS**

A minor or area of focus consists of 12 hours of upper-level credits in biological sciences. Note that all these courses include prerequisites in biology and some include prerequisites in chemistry or mathematics.

**CERTIFICATE IN MEDICAL SCIENCES (MEDS)**

The Medical Sciences (MEDS) certificate complements existing Baccalaureate degrees and acknowledges a student’s interest and education in human medical sciences.

Most biology majors pursuing the certificate complete 3 classes beyond a BS degree. Upon completion, the MEDS certificate is posted on the student’s transcript.

The major advantage of the MEDS certificate is to serve students seeking a medical sciences focus. The MEDS certificate may be particularly desirable to students who wish to extend their educational experience without a long-term commitment to graduate study.
**PROGRAM ENTRY**

For the degree-seeking student, admission to the certificate program requires a cumulative grade point average (GPA) of 3.0 or better and a minimum of 12 earned credits completed at UM-Dearborn. Applications should be submitted through CASL Advising and Records Office, 1039 CB.

Post-graduates (non-degree-seeking) must apply using the Campus Options Program application and submit the application directly to the program director for approval. Up to 2 courses (6 credits) may be transferred into the MEDS certificate. Once approved, the student will receive an acceptance letter from the Office of Admissions and Orientation. The Campus Options Program application is available online at umd.umich.edu/dde.

**REQUIREMENTS FOR A CERTIFICATE**

The student must be working toward a University of Michigan-Dearborn bachelor degree or the student must have received a bachelor degree from an accredited institution.

A minimum GPA of 2.8, both overall and in MEDS courses is required for graduation.

Students must complete Anatomy and Physiology (BIOL 103 and 105 or 305) and 3 courses, one each from the Biochemistry, Human Biology, and Medicine and Society categories.

<table>
<thead>
<tr>
<th>Required core (2 courses)</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 103 Anatomy and Physiology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>BIOL 105 Anatomy and Physiology IIA</td>
<td>4 hrs</td>
</tr>
<tr>
<td>OR BIOL 305 Anatomy and Physiology IIB</td>
<td>4 hrs</td>
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<table>
<thead>
<tr>
<th>Biochemistry (Choose one course from)</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BCHM 480 Pharmacology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>BIOL 370 Principles of Biochemistry</td>
<td>3 hrs</td>
</tr>
<tr>
<td>BIOL 328 Endocrinology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>BIOL 470 Biochemistry</td>
<td>3 hrs</td>
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<table>
<thead>
<tr>
<th>Human Biology (Choose one course from)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 310 Histology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>BIOL 350 Introduction to Neurobiology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>BIOL 380 Epidemiology</td>
<td>2 hrs</td>
</tr>
<tr>
<td>BIOL 357 Human Physiology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>BIOL 452 Medical and Env Toxicology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>BIOL 455 Immunology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>BIOL 459 Pathogenic Microbiology</td>
<td>4 hrs</td>
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<tr>
<td>BIOL/MICR 430 Medical Virology</td>
<td>3 hrs</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Medicine and Society (Choose one course from)</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 410 Diversity and Health Issues</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ANTH 430 Medical Anthropology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>PSYC 433 Health Psychology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HPS 440 Medical Sociology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HPS 442 Medical Ethics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HPS 456 Health Care and the Law</td>
<td>3 hrs</td>
</tr>
</tbody>
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**Biological Science (BIOL) COURSE OFFERINGS**

**BIOL 100 Principles of Biology**

A lecture course introducing non-science concentrators to major areas of biology, including cell biology, genetics, human physiology, plant biology, ecology, and evolution. Topics of current interest are discussed. Students cannot use both BIOL 100 and NSCI 120 to satisfy the Natural Sciences distribution requirements. Three hours lecture. (F,W).

**BIOL 103 Anatomy and Physiology I**

4.000 Credits

Co-requisites: BIOL 103L

The structural and functional relationships of the human body at the cellular, tissue, organ, and system levels are analyzed. Students identify the major anatomical parts and relate these to the physiological activities of the circulatory, skeletal, nervous, muscular, and digestive systems. The homeostatic effects of fluids, electrolytes, and acids and bases throughout the integrated human body are analyzed. Four hours lecture, three hours laboratory. (F).

**BIOL 105 Anatomy and Physiology IIA**

4.000 Credits

Prerequisites: BIOL 103

Co-requisites: BIOL 105L

The major anatomical parts of the cardiovascular, respiratory, reproductive, endocrine, nervous, and urinary systems of the human body are identified and related to the physiological activities of these systems. Emphasis is placed on the homeostatic effects of fluids, electrolytes, acids, and bases throughout the integrated human body. Four hours lecture, three hours laboratory. (W).

**BIOL 130 Intro Org and Environ Biology**

4.000 credits

Co-requisites: BIOL 130L

An introduction to organismal and environmental biology, with emphasis on plant and animal diversity, structure, physiology, and development; ecology; and evolution. This course complements BIOL 140, which need not be taken as a prerequisite; together they constitute an introduction to biology. This course is intended for science concentrators. Three hours lecture, four hours laboratory/recitation. (F,W,S).

**BIOL 140 Intro Molec & Cellular Biology**

4.000 Credits

Prerequisites: CHEM 134 or CHEM 144

Co-requisites: BIOL 140L

An introduction to molecular and cellular aspects of biology with emphasis on cell structure and function, biochemistry, genetics, cell growth, and the origin of life. This course complements BIOL 130; together they constitute an introduction to biology. This course is intended for science concentrators. Three hours lecture, four hours laboratory/recitation.

**BIOL 240 Great Experiments in Biology**

3.000 Credits

An individualized-learning course that portrays the development of modern biological science. The course does not require attendance in classes since it can be completed at home and in the library by means of study guides, audio cassettes, slide/tape presentations, and computer-assisted instruction. (F,W,S).

**BIOL 242 Great Experiments Laboratory**

1.000 Credits

Prerequisites: BIOL 240*

An individualized-learning laboratory science course that can be completed at home. Historically important and model experiments are performed in order to demonstrate how hypotheses are drawn and tested. Data are analyzed at a computer terminal. (F,W,S).
BIOL 290  Topics in Biology and Society
3.000 Credits
An introduction to themes of biology reflecting the interaction between biology and society. Topics vary and are announced in the current Schedule of Classes. The course may be repeated no more than once under a different topic. Three hours lecture. (OC).

BIOL 291  Biology and Society Laboratory
1.000 Credits
Co-requisites: BIOL 290
A laboratory course to accompany BIOL 290. Three hours laboratory. (OC).

BIOL 301  Cell Biology
4.000 Credits
Prerequisites: BIOL 140
Co-requisites: BIOL 303L
Functional and structural features of cells, organelles, and macromolecules. Topics in biochemistry, and physical chemistry of cellular processes are considered. Three hours lecture, four hours laboratory. CHEM 226 is recommended. (W).

BIOL 303  Comparative Animal Physiology
4.000 Credits
Prerequisites: BIOL 130 and BIOL 140 and (CHEM 124 or CHEM 134 or CHEM 144)
Co-requisites: BIOL 303L
Physiological processes and their control in higher animals. Emphasis ranges from the cellular mechanisms and systemic patterns of regulation of body functions to the evolutionary and environmental adaptations determining body form and function in diverse animal types. Three hours lecture, four hours laboratory. MATH 114 is recommended. (F).

BIOL 304  Ecology
4.000 Credits
Prerequisites: BIOL 130 and (MATH 115 or MATH 113 or MPLS 116)
Co-requisites: BIOL 304L
Relationships between organisms and their environments. Patterns in the physical environment, physiological and behavioral adaptations, population dynamics, energy flow, nutrient cycling; succession. Three hours lecture, four hours laboratory (with field trips). (F, S).

BIOL 305  Anatomy and Physiology IIB
4.000 Credits
Prerequisites: BIOL 103
Co-requisites: BIOL 305L
The major anatomical parts of the cardiovascular, respiratory, reproductive, endocrine, nervous, and urinary systems of the human body are identified and related to the physiological activities of these systems. Emphasis is placed on the homeostatic effects of fluids, electrolytes, acids, and bases throughout the integrated human body. Students complete additional work beyond what is required in BIOL 105. Four hours lecture, three hours laboratory.

BIOL 306  General Genetics
3.000 Credits
Prerequisites: BIOL 130 and BIOL 140
Co-requisites: BIOL 306R
An intermediate course in classical, molecular and evolutionary genetics. The structure, function, and inheritance of genetic material in prokaryotes, eukaryotes and viruses are discussed. Topics include DNA and chromosome structure, genetic linkage and mapping, gene expression and its regulation, human genetic disease, and population genetics. Three hours lecture, one hour recitation. (F).

BIOL 307  General Genetics Laboratory
1.000 Credits
Prerequisites: BIOL 306 *
A semester-long laboratory course dealing with investigation and analysis in genetics. Laboratory sessions will include genetic crosses of plants and animals and the subsequent analysis to determine linkage and gene mapping location. Computer exercises will also be used to establish genetic tools for modern molecular analysis. Four hours laboratory. (W).

BIOL 309  Introduction to Mycology
4.000 Credits
Prerequisites: BIOL 130 and BIOL 140
An introduction to the biology of the fungi. Classification, structure, industrial use, gastronomic qualities, and disease-producing ability of macroscopic and microscopic forms are studied. Laboratories include microscopic and macroscopic examinations of fungi and their growth and field studies on the occurrence and classification of edible and poisonous varieties. Three hours lecture, four hours laboratory. (OC).

BIOL 310  Histology
4.000 Credits
Prerequisites: BIOL 130 and BIOL 140
Descriptive approaches to the study of the microscopic anatomy of animal tissue. The course emphasizes the study of cell and tissue types, selected organs and the interpretation of electron micrographs. Three hours lecture, four hours laboratory. (AY, W).

BIOL 311  Embryology
4.000 Credits
Prerequisites: BIOL 130 and BIOL 140
Co-requisites: BIOL 311L
Descriptive and experimental approaches to a comparative study of reproduction, morphogenesis, and growth. Emphasis is placed on the vertebrates, but some attention is focused on the development of invertebrates and plants. Three hours lecture, four hours laboratory. (AY, W).

BIOL 312  Compare Anat of Vertebrates
5.000 Credits
Prerequisites: BIOL 130
A comparative study of the morphology of living organisms, including an analysis of functional features, an introduction to the principles of systematics, and a study of the broad outlines of classification. The major emphasis is on the comparative functional anatomy of vertebrates. Three hours lecture, eight hours laboratory. (AY, W).

BIOL 313  Plant Taxonomy and Systematics
4.000 Credits
Prerequisites: BIOL 130

Characteristics, distribution, and relationships of plants with special reference to the local Michigan flora. Three hours lecture, four hours laboratory (including field work) per week. (OC).

**BIOL 315  Aquatic Ecosystems**  
4.000 Credits  
Prerequisites: BIOL 130 and (CHEM 124 or GEOL 118)

An introduction to the physical, chemical, and biological characteristics of lakes, rivers, and wetlands emphasizing a comparison of ecosystem structure and function. Laboratory emphasizes data collection and analysis to characterize a representative lake, river, and wetland. Lecture and laboratory. (AY, F).

**BIOL 320  Field Biology**  
4.000 Credits  
Prerequisites: BIOL 130 or BIOL 100 or NSCI 120 or NSCI 233

Adaptations, taxonomy, systematics, ecology, and behavior of southeastern Michigan flora and fauna. Techniques of field observation and recording are emphasized. Skills in the use of identification keys and guides are developed. The campus Environmental Study Area is used intensively. Three hours lecture, four hours laboratory (with field trips). (S).

**BIOL 324  Invertebrate Zoology**  
4.000 Credits  
Prerequisites: BIOL 130

This course introduces students to the diversity of invertebrate animals from a functional evolutionary perspective. The lecture will focus on the unique aspects of the morphology, physiology, and ecology of major phyla in light of the selective forces that have favored their evolution, as well as consider the intersection of invertebrates and humans. Through dissection, prepared slides and field observations, the laboratory will introduce the diversity of invertebrate phyla and subgroups, with emphasis on form and function.

**BIOL 333  Plant Biology**  
4.000 Credits  
Prerequisites: BIOL 130  
Co-requisites: BIOL 333L

A thorough survey of the evolutionary trends in plant reproduction and morphology will be considered. This survey will extend into the field of plant anatomy, but not plant physiology, which is covered in a separate course. Major groups to be studied include: bacteria, algae, fungi, liverworts, lichens, mosses, ferns, and seed plants. Certain less familiar groups will also be emphasized. Plant diversity will be examined from the perspective of its import to civilizations of the past and future. Three hours lecture, four hours laboratory. (F, S).

**BIOL 335  Plant Physiology**  
4.000 Credits  
Prerequisites: BIOL 130 and BIOL 140  
Co-requisites: BIOL 335L

Physiological principles as they apply to the major plant groups. Topics include cellular metabolism, water balance, translocation, photosynthesis, mineral nutrition, growth and development and production of secondary substances. Three hours lecture, four hours laboratory. (W).

**BIOL 337  Plant Ecology**  
3.000 Credits  
Prerequisites: BIOL 130

This course focuses on different aspects of the relationship between plants and their environment. Topics include: a) interactions of plants with the physical environment; b) ways in which the environment acts to shape plant populations through evolution; c) intra- and interspecific interactions among individuals; and d) large-scale patterns and processes at the landscape-level. Three hours lecture.

**BIOL 350  Introduction to Neurobiology**  
4.000 Credits  
Prerequisites: BIOL 130 and BIOL 140  
Co-requisites: BIOL 350L

An introduction to nervous systems and how they function. This course includes the cellular physiology and anatomy of nervous systems in vertebrates and invertebrates, and how these cellular activities are integrated into systems to produce complex, coordinated behavior. Three hours lecture. (W).

**BIOL 352  Endocrinology**  
3.000 Credits  
Prerequisites: BIOL 140 and BIOL 130 and CHEM 134

This class will provide intermediate and advanced undergraduates with a basic understanding of the function of the endocrine system. The course will progress from a consideration of basic concepts and mechanisms to the physiology (function) of specific endocrine systems. Interactions between organ systems will also be emphasized. Specific sections of the course will focus on function of the endocrine system during stress, fluid balance, metabolism (including calcium, glucose, lipid, and proteins), reproductive growth, development, and aging.

**BIOL 353  Ornithology**  
3.000 Credits  
Prerequisites: BIOL 130

A study of the unique features of birds as representatives of vertebrates, including their morphology, anatomy, physiology, physics of flight, mating systems, social structure, vocalizations, orientation and migration, origin and evolution, growth and development, and issues in avian conservation. Students learn about the current research on bird migration at the Rouge River Bird Observatory on campus. Students develop individual species analysis of life and natural histories. Three hours lecture.

**BIOL 357  Human Physiology**  
3.000 Credits  
Prerequisites: (BIOL 130 and BIOL 140) or (BIOL 103 and BIOL 105)

Systems of the human body and their function are investigated individually and as part of an integrated natural living system. Topics include cell structure and function of nerves, muscles, the lungs, heart, blood vessels, kidneys, digestive tract, endocrine glands, brain, and reproductive organs.

**BIOL 360  Population Genetics & Evolution**  
3.000 Credits  
Prerequisites: BIOL 130 and BIOL 140 and (MATH 104 or MATH 105 or MATH 113 or MATH 115 or MPLS 116)

BIOL 361  Population Genetics & Evol Lab  
1.000 Credits  
Prerequisites: BIOL 360 *  
A laboratory course to accompany BIOL 360. Four hours laboratory. (OC).

BIOL 370  Principles of Biochemistry  
3.000 Credits  
Prerequisites: BIOL 140 and CHEM 226  
A concise but comprehensive survey of various areas of biochemistry designed for non-biochemistry majors. The course follows the standard approach to the subject including a description of cells, their structure and constituent macromolecules (proteins, nucleic acids, carbohydrates and lipids), enzymology, bioenergetics, intermediary metabolism and gene regulation. Students cannot take both BCHM 370 and 470 or 471 for any combination of concentration, cognate or minor requirement. Three hours lecture. (F).

BIOL 380  Epidemiology  
2.000 Credits  
Prerequisites: BIOL 140  
A study of disease occurrence and spread in human populations. The primary concern is with groups of persons, rather than individuals. Emphasizes methods of study that would contribute to understanding disease etiology. Two hours lecture. BIOL 301 and 385 are recommended. (OC).

BIOL 381  Biotechnology & Bioprocessing  
4.000 Credits  
Prerequisites: BIOL 140  
Biotechnology and Bioprocessing class is centered on the study of bioengineering applications found today in the medical and agricultural industries. Students use microorganisms, plant and animal tissue culture, and enzymes during the laboratory period, practicing the fundamentals of hands-on genetic engineering and material processing. Students establish and purify proteins from recombinant organisms. Besides technology, ethical and environmental concerns are discussed in the lecture. Three hours lecture, four hours laboratory.

BIOL 385  Microbiology  
4.000 Credits  
Prerequisites: BIOL 130 and BIOL 140  
Co-requisites: BIOL 385L  
The biology of microorganisms is considered through study of the properties of bacteria, fungi, algae, protozoa, and viruses. Microbial structures are discussed and correlated with their function. Aspects of cellular metabolism pertinent to microorganisms are emphasized. The interaction of microorganisms and their environment, animate and inanimate, is discussed with respect to the beneficial or harmful effects of the different microbial groups. Laboratory exercises introduce the student to basic, practical microbiological techniques and illustrate various principles of microbial life. Three hours lecture, four hours laboratory. (F,S).

BIOL 390  Topics in Biology  
1.000 TO 4.000 Credits  
Examination of problems and issues in selected areas of biology. Title in Schedule of Classes changes according to content. This course may be repeated for credit when specific topics differ. Permission of Instructor. (OC).

BIOL 405  Applied & Environ Microbiology  
4.000 Credits  
Prerequisites: BIOL 385 or MICR 385  
Co-requisites: BIOL 405L  
The study of the diversity, structure and function of microorganisms as they interact with their environment. Emphasis will be placed on soil microbiology (fungi, bacteria, microalgae) and plant-microbe interactions (pathogens, symbioses). Ecological topics include decomposition, nutrient cycling, bioremediation and agroecosystems. Three hours lecture, four hours laboratory. (W).

BIOL 406  Microbial Genetics  
3.000 Credits  
Prerequisites: MICR 385 or BIOL 385  
This molecular genetics course emphasizes bacteria and viruses. Topics include chromosome structure and replication, recombination, DNA repair, genetic mapping, mechanisms of gene transfer, regulation of gene expression, and mutagenesis. Three hours lecture, four hours laboratory. (AY,F).

BIOL 410  Diversity Issues Health Care  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: BIOL 130 and BIOL 140  
This course will address the effect of race, age, gender, religion, and economic status on medical research and health care. Through an examination of clinical trials and case studies, students will learn how medical research is performed in the United States, and what health care treatments and options for patients are available. Medical treatment and disease topics will be selected and will be evaluated as to how they are influenced by the criteria listed. The examples will focus on both cultural differences and inequity, in national and global settings. (AY).

BIOL 414  Limnology  
4.000 Credits  
Prerequisites: BIOL 130 and (CHEM 136 or CHEM 146)  
Co-requisites: BIOL 414L  
The study of the structural and functional relationships and productivity of organisms in lakes and streams as they are regulated by their physical, chemical and biotic environments. Laboratories will emphasize field study of area lakes and streams. Three hours lecture, four hours laboratory. BIOL/ESCI 304 or ESCI 275 recommended.

BIOL 416  Stream Ecology  
4.000 Credits  
Prerequisites: BIOL 304  
A study of the physical, chemical and biological characteristics of streams and rivers. Three hours lecture, four hours laboratory. (OC).

BIOL 419  Behavior and Evolution  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: BIOL 140 and BIOL 130  
An in depth examination of how evolutionary processes shape behavior, focusing on the influence of natural, sexual, and kin selection. Topics include behavioral genetics, natural selection, sexual selection, kin selection, optimality, game theory, evolutionary stable strategies, phylogenetics, and the comparative method.
BIOL 420  Advanced Field Ecology  
4.000 Credits  
Prerequisites: BIOL 304 or BIOL 320  
An intense study of behavioral ecology and field-oriented research at an advanced level, utilizing ecological habitats on campus and in surrounding urban areas. Focus will be on plant/animal interactions and will include pollination ecology, reproduction and distribution ecology, optimal foraging theory, as well as hypothesis testing of animal migration and distribution of species in extreme urban environments. Three hours lecture, four hours laboratory. (OC).  

BIOL 424  Biology of Spiders  
4.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: BIOL 130  
An introduction to the biology of spiders and related arachnids. Lectures include spider anatomy, natural history, ecology, and evolution. Laboratory work includes specimen preparation, use of dichotomous keys, spider behavior, field methods, rearing and collecting techniques, and identification of spiders and their webs. Three hours lecture, four hours laboratory. Students cannot receive credit for both Biology 424 and Biology 524.  

BIOL 430  Medical Virology  
3.000 Credits  
Prerequisites: BIOL 385 or MICR 385  
A general description of the history and nature of animal virus disease. Emphasis is placed on the pathogenesis and clinical description of specific diseases.  

BIOL 440  Micro Genetics & Physi Lab  
1.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: BIOL 385 * or MICR 385 * or BIOL 301 * or BIOL 406 * or MICR 406 * or BIOL 485 * or MICR 485 *  
This course emphasizes the use of advanced microbiological techniques for understanding the genetics and physiology of microorganisms. Experiments focus on the understanding of general microbial phenomena, such as nutrition, metabolism and biochemistry; protein and nucleic acid synthesis; energy generation, enzyme regulation, membrane transport, motility, differentiation, cellular communication and the behavior of populations.  

BIOL 450  Virology  
4.000 Credits  
Prerequisites: CHEM 226 and (MICR 385 or BIOL 385)  
The first half of this course deals with bacterial viruses, with emphasis on classical events in this field. The second half surveys the field of animal viruses, with emphasis on recent discoveries, including replication, pathogenesis, and viral association with cancers. Three hours lecture, four hours laboratory. (AY,W).  

BIOL 452  Med & Env Toxidology  
4.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: BIOL 140 and CHEM 225 and (BIOL 370 or BIOL 470 or BIOL 301)  
Emphasis is on the toxicity, toxikinetics and toxicodynamics of environmental toxicants to human pathophysiology. Examples are based on toxicant exposure and subsequent diseases in humans and other biological systems. Three hours lecture, four hours laboratory. (W)  

BIOL 455  Immunology  
4.000 Credits  
Prerequisites: BIOL 385 or BIOL 301 or MICR 385  
A detailed study of the field of immunology. Among the topics covered are various aspects of the immunological response, such as humoral or cell-mediated immunity, cell-cell interactions, and immunology as related to the cause and prevention of disease. Three hours lecture, four hours laboratory. (AY,F).  

BIOL 456  Behavioral Biology  
4.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Specialist  
Doctorate  
Prerequisites: BIOL 130  
Co-requisites: BIOL 456L  
This course uses evolutionary and ecological theory to evaluate behavioral adaptations of organisms to their environment. Topics discussed include game theory, kin selection, sexual selection, eusociality, orientation and navigation, and signal evolution. Laboratory sessions include: observations of animal behavior, required manipulations of live animals, and field trips. Three hours of lecture, one four-hour laboratory. Students cannot receive credit for both BIOL 456 and BIOL 556. Student seeking graduate credit should elect BIOL 556.  

BIOL 459  Pathogenic Microbiology  
4.000 Credits  
Prerequisites: BIOL 385 or BIOL 301 or MICR 385  
An introduction to pathogenic microorganisms and mechanisms of microbial pathogenicity. Disease-causing bacteria, fungi, viruses, and protozoa are studied. Laboratories emphasize clinical approaches to isolation, identification, and treatment. Three hours lecture, four hours laboratory. (AY,F).  

BIOL 470  Biochemistry I  
3.000 Credits  
Prerequisites: BIOL 130 and BIOL 140 and CHEM 226  
Life processes from a chemical viewpoint: structure/function relationships of biomolecules with emphasis on proteins, enzyme kinetics, and mechanisms of action. Three hours lecture. (F).  

BIOL 471  Biochemistry II  
3.000 Credits  
Prerequisites: BCHM 470 or BIOL 470 or CHEM 470  
Intermediary metabolism, bioenergetics, energy transformation, metabolic interrelationships, biochemical regulation, highly structured subcellular biochemical systems. Three hours lecture. (W).
BIOL 472  Biochemistry Lab I
1.000 Credits
Prerequisites: CHEM 344 * and (BCHM 470 * or BIOL 470 * or CHEM 470 *) and CHEM 227

The techniques of preparative and analytical biochemistry. Preparation and characterization of proteins and nucleic acids. Physical and chemical properties of proteins and nucleic acids. Four hours laboratory. (F).

BIOL 473  Biochemistry Laboratory II
1.000 Credits
Prerequisites: (BCHM 471 * or BIOL 471 * or CHEM 471 *) and (BCHM 472 or BIOL 472 or CHEM 472)

The techniques of preparative and analytical biochemistry. Preparation and characterization of lipids and carbohydrates. Methods in metabolism. Four hours laboratory. (W).

BIOL 474  Molecular Biology
4.000 Credits
Prerequisites: (BCHM 470 or BIOL 470 or CHEM 470) or (BCHM 370 or BIOL 370 or CHEM 370) and CHEM 227
Co-requisites: BIOL 474L

This course will emphasize the molecular biology of eukaryotes, and topics will include genome organization and complexity, chromatin structure and function, gene expression, DNA replication and repair, genetic rearrangements, and the molecular biology of development. The laboratory will emphasize the application of recombinant DNA technology to the study of biological problems. Three hours lecture, four hours laboratory. (W).

BIOL 485  Physiology of Micro-organisms
3.000 Credits
Prerequisites: (BIOL 385 or MICR 385) and CHEM 225 *

An in-depth examination of the physiology of microorganisms. Areas of emphasis include the growth and nutrition of microorganisms, the development of viruses, the microbial degradation of organic compounds, the regulation of degradation reactions, and the biosynthesis of uniquely microbial compounds and secondary metabolites, such as antibiotics and toxins. Consideration is given to the natural environments of specific microorganisms. Three hours lecture, four hours laboratory. (AY,W).

BIOL 489  Origins of Biological Sciences
3.000 TO 4.000 Credits

A study of the development of the science of biology as revealed in the writing and experiments of major biologists of the past and present. (OC).

BIOL 490  Sem in Biology/Microbiology
1.000 TO 6.000 Credits

Directed research on a problem culminating in the preparation of a paper and presentation of a public seminar. Tutorials, lectures and student seminars are given on selection and formulation of research problems, experimental design, and statistical treatment of data. May be repeated for credit with permission of advisor. (OC).

BIOL 491  Capstone Course in Biology
3.000 Credits
Must be enrolled in one of the following Major fields of study:
   Biological Sciences
Must be enrolled in one of the following classes:
   Senior

A culminating course for biology majors which focuses on an area of current biological research and integrates material from different subdisciplines of biology. Topic varies and is announced in the Schedule of Classes. Three hours lecture.

BIOL 492  Capstone Research Experience
3.000 Credits

Must be enrolled in one of the following Major fields of study:
   Biological Sciences
Must be enrolled in one of the following classes:
   Senior

An approved research experience with a UM-D biology faculty member which integrates material from different subdisciplines of biology. Research results are reported in a poster or seminar presentation or in a manuscript submitted for publication.

BIOL 493  Capstone Teaching Experience
3.000 Credits

Must be enrolled in one of the following Major fields of study:
   Biological Sciences
Must be enrolled in one of the following classes:
   Senior

An approved teaching experience which integrates material from different subdisciplines of biology. Students work as a student teaching assistant/student mentor in the laboratory portion of a biology course.

BIOL 495  Off-Campus Research Participat
1.000 TO 3.000 Credits

Participation in ongoing experimental research at an off-campus laboratory (or in the field). Arrangements made between the off-campus researcher, the student, and the Biology concentration advisor. No more than six credit hours combined from BIOL 490, 495, 498, and 499 may be counted toward the 120 hours required for a degree. Four to twelve hours laboratory. Permission of instructor. (F,S).

BIOL 497  Seminar in Biology
1.000 Credits

Topics of current interest in Biology will be presented by guest lecturers, faculty members or students. Topics chosen will vary from term to term. Can be elected up to three times. One hour seminar. (W).

BIOL 498  Independent Study in Biology
1.000 TO 3.000 Credits

Library research and independent study performed under the guidance of a faculty member. Four to twelve hours readings. Permission of instructor. (F,S).

BIOL 499  Laboratory in Biological Resrh
1.000 TO 3.000 Credits

Directed laboratory research performed under the guidance of faculty member. Four to twelve hours laboratory. Permission of Instructor. (F,S).
Chemistry (ACSM Approved)

The major program in chemistry at the UM-Dearborn is certified by the American Chemical Society. This program is designed primarily for students who intend to go into Chemistry as a profession or who plan to continue their studies at the graduate level. A student may earn a BS degree in chemistry by completing the prerequisite, major, and cognate courses listed below and by fulfilling the CASL distribution and graduation requirements.

PREREQUISITES TO THE MAJOR

A solid background in mathematics is essential to success in any of the scientific disciplines. Incoming students who intend to choose a major in Chemistry should have completed at least three years of high school mathematics. First year students should plan to enroll in MATH 105, MATH 115, or MATH 116 based on the results of their math placement tests. The CHEM 134-136 or 144-146 sequence is a prerequisite to many other courses in the Natural Sciences Department; students should complete this sequence as soon as possible.

Chemistry majors must complete the following 39-40 credit hours of prerequisite courses. These courses should be completed early in the student's four-year curriculum.

CHEM 134 and 136 or 144 and 146
CHEM 225, 226 and 227
Biol 140
PHYS 150 and 151**
MATH 115, 116 and 205 or 215

**The physics prerequisite may also be satisfied by completing PHYS 125 and 126 and an upper-level physics course, such as PHYS 305. The upper level PHYS course used in this substitution cannot be used toward the cognate requirement.

MAJOR REQUIREMENTS

Required courses .......................................................... 29 hrs
CHEM 303 Inorganic Chemistry I ............................... 3 hrs
CHEM 344 Quantitative Analysis .................................. 4 hrs
CHEM 368 Physical Chemistry I .................................. 3 hrs
CHEM 370 Principles of Biochemistry ........................ 3 hrs
CHEM 403 Inorganic Chemistry II ............................... 3 hrs
CHEM 447 Instrumental Methods of Analysis ............... 4 hrs
CHEM 450 Advanced Organic Synthesis and Characterization Laboratory ................................ 1 hr
CHEM 452 Advanced Inorganic Synthesis and Characterization Laboratory ................................ 1 hr
CHEM 469 Physical Chemistry II ................................... 3 hrs
CHEM 481 Physicochemical Measurements ................ 2 hrs
CHEM 493 Presentations in Chemistry ........................... 1 hr

One course from
CHEM 348 Environmental Chemistry ...................... 3 hrs
CHEM 349 Environmental Chemistry Laboratory ........ 1 hr
CHEM 352 Introduction to Toxicology ....................... 3 hrs
CHEM 390 Current Topics in Chemistry ..................... 1-3 hrs
CHEM 426 Advanced Organic Chemistry .................... 3 hrs
CHEM 430 Bioorganic Chemistry ............................... 3 hrs
CHEM 436 Polymer Chemistry .................................... 3 hrs
CHEM 437 Nano-Biotechnology .................................... 3 hrs
CHEM 472 Biochemistry Laboratory I ......................... 1 hr
CHEM 473 Biochemistry Laboratory II ......................... 1 hr
CHEM 490 Topics in Chemistry ................................... 1-3 hrs
CHEM 497 Seminar in Chemistry ............................... 1 hr

Cognates ........................................................................ 6 hrs
Students must complete at least six credit hours from courses numbered 300 and above in Biology, Biochemistry, Environmental Science, Geology, Mathematics (excluding MATH 385, 386, 387, 391, 442, 443, 444, 445, 446, 447, 449, 486), Microbiology, Statistics, or Physics. The six credit hours need not be from a single discipline.

NOTES:
1. A maximum of 44 hrs. in CHEM (excluding CHEM 134, 136, 144, 146) may count in the 120 required for graduation.
2. At least 12 of the 29 upper level hours in CHEM must be elected at UM-Dearborn.
3. CHEM 470 and 471 can be used in place of CHEM 370, however, CHEM 470 alone cannot be used for this substitution. Students cannot take both CHEM 370 and 470 or 471 or any combination to fulfill major, cognate or minor requirements.
4. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

MINOR OR AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in chemistry.

Chemistry (Instructional Track)

The Chemistry/Instructional Track major is an interdisciplinary program for students who wish to teach chemistry and other science courses at the secondary school level. The program meets State of Michigan requirements as well as American Chemical Society recommendations for teaching chemistry in high school. A student may earn a BS degree in Chemistry and qualify for a Michigan Provisional Secondary Teaching Certificate by completing the professional sequence of education courses including one semester of directed teaching; by completing the prerequisite, major, and cognate requirements listed below; and by fulfilling the CASL distribution and graduation requirements. Students must also complete at least 100 credit hours of non-education courses; have a minimum 2.75 overall GPA; have a 2.75 or better GPA in their teaching major and in education courses; and have a 2.75 in their teaching minor. Students must take the Michigan Test for Teacher Certification (MTTC) prior to being recommended for a Michigan teaching certificate.

PREREQUISITES TO THE MAJOR

Chemistry/Instructional Track majors must complete 40 credit hours of prerequisite courses. These courses should be completed early in the student's curriculum.

CHEM 134/136 or 144/146 General Chemistry .............. 8 hrs
CHEM 225, 226 and 227 Organic Chemistry ................. 8 hrs
Biol 130 or BIOL 140* ................................................. 4 hrs
MATH 115, 116 and 205 or 215* ................................. 11-12 hrs
PHYS 150/151 General Physics** ............................... 8 hrs

*Note: Students interested in biochemistry should elect BIOL 140; students interested in environmental chemistry should elect BIOL 130.

**Note: The physics prerequisite may also be satisfied by completing PHYS 125 and 126 and an upper-level physics course, such as PHYS 305. The upper level PHYS course used in this substitution cannot be used toward the cognate requirement.
MAJOR REQUIREMENTS ............................................. 20 hrs
Students must complete 20 credit hours of upper-level chemistry courses as indicated:

Required courses
CHEM 303 Inorganic Chemistry I ...................... 3 hrs
CHEM 344 Quantitative Analysis ......................... 4 hrs
CHEM 368 Physical Chemistry I .......................... 3 hrs

One course from the following
CHEM 403 Inorganic Chemistry II ...................... 3 hrs
CHEM 447 Instrumental Methods of Analysis .......... 4 hrs
CHEM 469 Physical Chemistry II ......................... 3 hrs

One laboratory course from the following
CHEM 450 Advanced Organic Synthesis and
Characterization Laboratory ............................. 1 hr
CHEM 452 Advanced Inorganic Synthesis and
Characterization Laboratory ............................. 1 hr
CHEM 481 Physicochemical Measurements ............. 2 hrs

Electives
Additional courses to bring the upper-level chemistry total to 20 hours, from the following
CHEM 348 Environmental Chemistry .................. 3 hrs
CHEM 349 Environmental Chemistry Laboratory ... 1 hr
CHEM 352 Introduction to Toxicology ................. 3 hrs
CHEM 370 Principles of Biochemistry ................ 3 hrs
CHEM 390 Current Topics in Chemistry .............. 1-3 hrs
CHEM 403 Inorganic Chemistry II ...................... 3 hrs
CHEM 426 Advanced Organic Chemistry .............. 3 hrs
CHEM 436 Polymer Chemistry ............................ 3 hrs
CHEM 447 Instrumental Methods of Analysis .......... 4 hrs
CHEM 450 Advanced Organic Synthesis and
Characterization Laboratory ............................. 1 hr
CHEM 452 Advanced Inorganic Synthesis and
Characterization Laboratory ............................. 1 hr
CHEM 469 Physical Chemistry II ......................... 3 hrs
CHEM 481 Physicochemical Measurements ............. 2 hrs
CHEM 497 Seminar in Chemistry ......................... 1 hr

Cognates .............................................................. 6 hrs
Chemistry/Instructional Track majors must complete at least six credit hours of courses numbered 300 or above offered in Biochemistry, Biological Sciences, Environmental Science, Geology, Mathematics (excluding MATH 363, 385, 386, 387, 442, 443, 444, 447, 486), Microbiology, Physics, or Statistics (excluding STAT 363). The six credit hours need not be from a single discipline. Courses taken to fulfill the teaching minor requirement usually fulfill the cognate requirement as well.

NOTES:
1. A maximum of 44 hrs. in CHEM (excluding CHEM 134, 136, 144, 146) may count in the 120 required for graduation.
2. At least 12 of the 29 upper level hours in CHEM must be elected at UM-Dearborn.
3. CHEM 470 and 471 can be used in place of CHEM 370; however, CHEM 470 alone cannot be used for this substitution. Students cannot take both CHEM 370 and 470 or 471 or any combination to fulfill major, cognate or minor requirements.
4. The Chemistry Instructional major is open only to students who have been admitted to the College of Education, Health, and Human Services Secondary Certification Program.
5. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

REQUIREMENTS FOR THE TEACHING MINOR
In order to obtain teaching certification, a student must complete the requirements for a teaching minor. Courses used to satisfy requirements for the minor and prerequisite may not be used to satisfy cognate or major requirements.

Teaching minors are available in mathematics, physical science, physics, and biology. Students should consult the College of Education, Health, and Human Services section in this Catalog for coursework requirements to complete the teaching minor.

EDUCATION REQUIREMENTS

Chemistry/Instructional majors must complete the following courses offered by the College of Education, Health, and Human Services: EDA 340 or EDA 440, EDC 300, EDC 301, EDC 302, EDC 460, EDD 301, EDD 304, EDD 469, EDD 480 or EDD 481, EDT 211, EXPS 410. Course descriptions for the above courses will be found under the College of Education, Health, and Human Services section of this Catalog. Chemistry/Instructional majors must also complete PSYC 171.

Chemistry (CHEM) COURSE OFFERINGS

CHEM 090 Introduction to Chemistry
3.000 Credits
An introductory course in chemistry stressing fundamental principles of chemistry and the application of mathematics to chemistry and problem-solving. Topics will include chemical formulas and equations, stoichiometry, descriptive inorganic chemistry, behavior of gases and atomic structure. Students with high school chemistry and three years of high school mathematics should elect CHEM 114. Three hours lecture. (F).

CHEM 091 Introduction to Chemistry II
3.000 Credits
The course is designed for the Chemistry 134/144 student whose background in chemistry is inadequate for success in 134/144. This course will be offered concurrently with Chem 090 (Introduction to Chemistry). It will begin after the first Chem 134/144 exam and will encompass the final nine weeks of the term. Topics will include chemical formulas and equations, stoichiometry, descriptive inorganic chemistry, behavior of gases, and atomic structure.

CHEM 100 Chemistry and Society
.000 OR 4.000 Credits
An introductory course for nonscientists that examines the way chemistry impacts our world. The course will focus not only on what modern chemistry has accomplished, but more generally on the way scientists think and how they function. Selected topics include (a) air and water pollution, ozone layer, global warming, acid rain, and other environmental chemistry; (b) the chemistry of plastics and polymers; (c) the chemistry of drugs and medicines; and (d) biotechnology and genetic chemistry. Other topics include the influence of the media on scientific issues and the decision-making process in science. Three hours lecture, three hours lab. (YR).
CHEM 124  General Chemistry I  
4.000 Credits  
Prerequisites: MATH 104 * or MATH 105 * or MPLS 113  
Co-requisites: CHEM 124L  

An introduction to phenomena and principles of chemistry with emphasis on developing an understanding of the fundamentals of chemical processes. Concepts to be explored are chemical reactions, thermodynamics, equilibria, and kinetics. For students considering careers in life sciences, physical sciences and engineering. Three hours lecture, one hour recitation, three hours laboratory. Prerequisites are one year of high school chemistry and previous or concurrent enrollment in MATH 104 or 105. (F, W,S).

CHEM 134  General Chemistry IA  
4.000 Credits  
Prerequisites: MATH 105 * or MPLS 113 or MPLS 115  
Co-requisites: CHEM 134L  

An introduction to chemical phenomena and principles with an emphasis on developing both an understanding of chemistry and an appreciation of what chemists do. Students will investigate the fundamentals of chemistry in the context of real-world problems and will utilize systems of biological and environmental importance. Core concepts include stoichiometry, aqueous chemistry, gas laws, thermochemistry, atomic structure, molecular structure and bonding. Three hours lecture, one hour recitation, three hours laboratory. Primarily designed for students considering careers in life sciences or physical sciences. (F,W,S)

CHEM 136  General Chemistry IIA  
4.000 Credits  
Prerequisites: CHEM 124 or CHEM 134 or CHEM 144  
Co-requisites: CHEM 136L  

Continuation of CHEM 134. Concepts explored include conceptual and quantitative treatments of intermolecular forces, physical properties of solutions, chemical kinetics, chemical equilibria, acid-base equilibrium, thermodynamics, and electrochemistry. Primarily designed for students majoring in the physical sciences and the life sciences. (F,W,S)

CHEM 144  Gen Chemistry IB  
.000 OR 4.000 Credits  
Prerequisites: MATH 105 * or MPLS 113 or MPLS 115  
Co-requisites: CHEM 144L  

This course consists of an introduction to chemistry, its phenomena, and principles explored in the context of real-world examples (e.g. the automobile). Core concepts include states of matter, atomic and electronic structure, types of reactions (acid-base and reduction-oxidation), structure and bonding, gas laws, stoichiometry, thermodynamics, chemical equilibria, and the chemical composition of the atmosphere and air pollution problems. Three hour lecture, one hour recitation, three hours laboratory. Primarily designed for students considering careers in engineering. (F)

CHEM 146  General Chemistry IIB  
.000 OR 4.000 Credits  
Prerequisites: CHEM 124 or CHEM 134 or CHEM 144  

Continuation of CHEM 144. This course consists of an introduction to chemistry, its phenomena, and principles explored in the context of real-world examples (e.g. the automobile). Core concepts to be explored include the solid state, chemical kinetics, electrochemistry and its applications (e.g. batteries, fuel cells, and corrosion), an introduction to organic functional groups, their reactions, and spectroscopic identification, and the preparation and properties of synthetic polymers. Primarily designed for students considering careers in engineering. (W)

CHEM 225  Organic Chemistry I  
3.000 Credits  
Prerequisites: CHEM 136 or CHEM 146  
Co-requisites: CHEM 225R  

The initial course in organic chemistry. A general introduction to organic chemistry with emphasis on the development of structure theory and functional group chemistry. Three hours lecture, one hour recitation. (F,S).

CHEM 226  Organic Chemistry II  
3.000 Credits  
Prerequisites: CHEM 225  
Co-requisites: CHEM 226R  

A continuation of CHEM 225. Topics include functional group chemistry and properties of carbohydrates, amino acids, and aromatic compounds. Three hours lecture, one hour recitation. CHEM 225 and 226 constitute a two-semester sequence in organic chemistry, suitable for students in the basic sciences or engineering or with interests in one of the health professions. (W,S)

CHEM 227  Organic Chemistry Laboratory  
2.000 Credits  
Prerequisites: CHEM 226 *  

Development of the basic laboratory techniques of organic chemistry. The chemistry of functional groups is studied and various organic compounds are synthesized and purified. Eight hours laboratory. (F,W,S).

CHEM 285  Introduction to Glass Blowing  
1.000 Credits  

A study of the nature, properties, and manufacture of glass. Laboratory experience in the manipulation of glass and the construction of scientific apparatus. Discussions, laboratory, and field trips. (AY).

CHEM 303  Inorganic Chemistry I  
3.000 Credits  
Prerequisites: CHEM 136 or CHEM 146  

A study of the chemistry of the elements and their periodic relationship. Bonding theories and structures as well as descriptive chemistry of the representative elements will be emphasized. Three hours lecture. (F).

CHEM 325  Principles of Organic Chem  
3.000 Credits  

May not be enrolled in one of the following Major fields of study:  
Biochemistry  
Biological Sciences  
Chemistry (ACS Certified)  
Chemistry (Instructional)  
Microbiology  
Prerequisites: CHEM 124 and (CHEM 136 or CHEM 146)  

A one-semester introduction to the compounds of carbon, with an emphasis on structure, preparation, reactivity and characterization of different functional groups. Both aliphatic and aromatic compounds will be examined. The important role of organic compounds in modern society will be highlighted with real world examples including fuels, detergents, plastics, medicines, biomolecules, environmental pollutants and additives. This course may not be used to satisfy the organic chemistry prerequisite for the Biochemistry, Biology, Chemistry, or Microbiology degree programs. Students may not receive credit for both CHEM 225 and 325. CHEM 325 may not be used as a prerequisite for Chemistry 226.
CHEM 344  Quantitative Analysis  
4.000 Credits  
Prerequisites: CHEM 136 or CHEM 146  
Co-requisites: CHEM 344L  
A survey of theory and practice of volumetric, gravimetric,  
electrometric and colorimetric analysis. Systematic analysis of  
complex materials. Two hours lecture, eight hours laboratory.  
(F).

CHEM 348  Environmental Chemistry  
3.000 Credits  
Prerequisites: CHEM 225 and (CHEM 225 or CHEM 325)  
Description of the concepts, principles, practices, and current  
problems in the chemistry of natural waters, the soil, and the  
atmosphere. Three hours lecture. (AY).

CHEM 349  Environmental Chem Laboratory  
1.000 Credits  
Prerequisites: CHEM 348 * or ESCI 348 *  
Collection and analysis of air, water, soil, and organisms for  
pollutants such as noxious gases, heavy metals, and trace  
organics. EPA-approved methods are emphasized. Four hours  
laboratory. (AY).

CHEM 352  Introduction to Toxicology  
3.000 Credits  
Prerequisites: CHEM 225  
An introduction to the principles of toxicology with an emphasis  
on environmental toxicology. Major topics include toxic agents,  
toxicological mechanisms, and use of toxicological reference  
literature. Discussion of chemical carcinogenesis, genetic  
toxicity, immunotoxicology, teratology, and toxic responses  
of the skin, eyes and nervous system. Three hours lecture. (AY).

CHEM 368  Physical Chemistry I  
3.000 Credits  
Prerequisites: CHEM 225 and CHEM 344 and MATH 116  
and (PHYS 125 or PHYS 150)  
Nature of the gaseous state, chemical thermodynamics,  
biochemical and chemical equilibria and kinetics. Three hours  
lecture, one hour discussion. (W).

CHEM 370  Principles of Biochemistry  
3.000 Credits  
Prerequisites: BIOL 140 and CHEM 226  
A concise but comprehensive survey of various areas of  
biochemistry designed for non-biochemistry majors. The course  
follows the standard approach to the subject including a  
description of cells, their structure and constituent  
macromolecules (proteins, nucleic acids, carbohydrates and  
lipids), enzymology, bioenergetics, intermediary metabolism  
and gene regulation. Students cannot take both BCHM 370 and  
470 or 471 for any combination of concentration, cognate or  
minor requirement. Three hours lecture. (F).

CHEM 390  Current Topics in Chemistry  
1.000 TO 3.000 Credits  
A course in special topics current to the field of chemistry.  
Topics and format for the course may vary. See current  
Schedule of Classes. One to three hours seminar. Permission of  
instructor. (OC).

CHEM 397  Current Topics in Chemistry  
3.000 Credits  
A course for non-science majors which focuses on the interaction  
of chemistry and society. Sufficient chemical knowledge will be  
introduced so that the issues can be discussed and competing  
statements evaluated. Topics covered will include air and water  
pollution, fuels, designing drugs, etc. (OC).

CHEM 403  Inorganic Chemistry II  
3.000 Credits  
Prerequisites: CHEM 303 and (CHEM 368 * or CHEM 468)  
A study of coordination and organometallic compounds through  
the use of current theories. The structure, reactivity, and  
descriptive chemistry of transition metal complexes will be  
examined. Three hours lecture. (W).

CHEM 426  Advanced Organic Chemistry  
3.000 Credits  
Prerequisites: CHEM 226 and CHEM 227  
Spectral analysis, structure determination, reaction mechanisms,  
synthesis, stereochemistry, and other selected topics are  
discussed. Three hours lecture. (AY).

CHEM 430  Bioinorganic Chemistry  
3.000 Credits  
Prerequisites: BCHM 370 or CHEM 370 or BIOL 370  
Introduces the roles that metals play in biological systems.  
Explores the chemical principles that make metals particularly  
well-suited for these roles. Introduces physical and experimental  
techniques used to explore the structure and function of metals  
in natural systems. Explores case studies from the literature to  
synthesize results of various experiments to develop a final  
understanding of the systems. Includes critical analysis of  
published primary literature in the field.

CHEM 436  Polymer Chemistry  
3.000 Credits  
Prerequisites: CHEM 226 and (CHEM 368 * or CHEM 468)  
The macromolecular concept is introduced and polymerization  
mechanisms are discussed. The chemistry and physical  
properties of representative polymeric materials are presented.  
Topics include the determination and distribution of molecular  
weights, polymer morphology, mechanical properties of  
polymers, relaxation phenomena in polymers, and methods of  
polymer characterization. Three hours lecture. (AY).

CHEM 437  Nano-Biotechnology  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: (CHEM 136 or CHEM 146) and (PHYS 126  
or PHYS 151) and BIOL 140  
An introduction to the fundamentals of nanotechnology, nano- 
fabrication processes and its application in different fields with  
special attention to the life sciences. This course introduces  
different tools used in nontechnology and investigates how one  
can borrow the idea of self-assembly from nature to design  
structures at the nanometer scale. The course also focuses on  
different contemporary application areas of nanotechnology like  
biosensor development, cancer research and drug delivery. The
CHEM 472  Biochemistry Laboratory I  
1.000 Credits  
Prerequisites: CHEM 344 * and (CHEM 470 * or BCHM 470 * or BIOL 470 *) and CHEM 227  
The techniques of preparative and analytical biochemistry. Preparation and characterization of proteins and nucleic acids. Physical and chemical properties of proteins and nucleic acids. Four hours laboratory. (F).  

CHEM 473  Biochemistry Laboratory II  
1.000 Credits  
Prerequisites: (BCHM 471 * or BIOL 471 * or CHEM 471 *) and (BCHM 472* or BIOL 472 * or CHEM 472 *)  
The techniques of preparative and analytical biochemistry. Preparation and characterization of lipids and carbohydrates. Methods in metabolism. Four hours laboratory. (W).  

CHEM 481  Physicochemical Measurements  
2.000 Credits  
Prerequisites: CHEM 469 *  
Laboratory work including the determination of molecular weights, measurements of properties of pure liquids and solutions, studies of phase equilibria, thermochemical measurements, and analysis of atomic and molecular spectra. Eight hours laboratory. (W).  

CHEM 490  Topics in Chemistry  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following classes:  
Junior  
Senior  
Graduate  
Prerequisites: CHEM 226  
Examination of problems and issues in selected areas of chemistry. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. One to three hours lecture. (YR).  

CHEM 493  Presentations in Chemistry  
1.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Students will submit a proposal for a senior project, present the completed project in an appropriate forum, and submit a written report on the project. Students will assemble and present a professional portfolio, and complete an exit interview. The student and the chemistry concentration advisor. No more than six hours combined from CHEM 495, 498, and 499 may be credited toward the 120 hours required for a degree. Four to twelve hours laboratory. Permission of concentration advisor. (F,W,S).
CHEM 497 Seminar in Chemistry
1.000 Credits
May not be enrolled in one of the following Major fields of study:
Chemistry (ACS Certified)
Chemistry (Instructional)
Must be enrolled in one of the following classes:
Junior
Senior
Graduate
Weekly seminars on topics of current chemical interest presented by faculty members, guest lecturers or students. The subject will vary from term to term. The course may be elected up to three times. One hour seminar. (W).

CHEM 498 Readings in Chemistry
1.000 TO 3.000 Credits
Library research in a specific area of chemistry performed under the guidance of a faculty member. No more than six hours combined from CHEM 495, 498 and 499 may be credited toward the 120 hours required for a degree. Four to twelve hours of readings. Permission of instructor. (F,W,S).

CHEM 499 Laboratory Research in Chem
1.000 TO 3.000 Credits
Directed laboratory research performed under the guidance of a faculty member. No more than six hours combined from CHEM 495, 498 and 499 may be credited towards the 120 hours required for a degree. Four to twelve hours laboratory. Permission of instructor. (F,W,S).

Communication
The communication major emphasizes three interrelated areas of public relations and organizational cultures, public advocacy and democratic cultures, and intercultural/international communication and global cultures. Each area has a practical focus in which written and oral communication skills and interpersonal awareness are developed; in addition the communication degree is designed to emphasize the intellectual, historical, and critical perspectives emerging from the intersections between and among these larger areas of communication inquiry. This “triadic” approach presents communication as a challenging, creative skill to be mastered, and, moreover, as an integral process through which democratic and professional possibilities are shaped and social realities constructed.

A prominent emphasis on culture and community connects disciplinary work in communication with the integrative understanding of people’s needs and interests that characterizes the best work in anthropology, sociology, psychology, economics, and political science. The program combines this strong theoretical foundation with the practical skills training to prepare students for any number of opportunities in our globalized multicultural and highly technological environment.

COMMUNICATION MAJOR REQUIREMENTS:
Prerequisites: 6 hrs
SPEE 101 Principles of Speech Communication
COMM 220 Survey of Mass Communication

Required Core Area I: 3 hrs
COMM 366 Introduction to Public Communication and Culture Studies

Required Core Area II: 18 hrs
Select 2 courses from each of the following focus areas:

Public Relations and Organizational Culture Focus
COMM 260 Public Relations Principles
COMM 300 Communication Research Methods
COMM 360 Social Media for Public Relations
COMM 390 Special Topics
COMM 450 Organizational Communication and Organizational Cultures
COMM 460 Public Relations Campaigns
COMM 477 Professional Communication Ethics
ESCI 572 Environmental Communications

International/Intercultural Communication and Global Culture Focus
COMM 300 Communication Research Methods
COMM 390 Special Topics
COMM 420 Critical Media Studies
COMM 430 International Communication
COMM 455 Gender and Media Studies
COMM 481 Gender and Globalization
SPEE 310 Interpersonal Communication

Public Advocacy and Democratic Culture Focus
COMM 306 Comparative American Identities
COMM 420 Critical Media Studies
COMM 455 Gender and Media Studies
JASS 380 History of American Journalism
SPEE 320 Public Argument and Advocacy
SPEE 330 Argumentation and Debate
SPEE 340 Theories of Persuasion
SPEE 400 Speech Skills for Professionals
SPEE 430 Small Group Communication
SPEE 442 20th Century Public Argument

Focus Area Specialization/Production Specialization: 6 hrs
The remaining hours can be taken in either Option A or Option B below

Option A – Focus Area Specialization
Select two additional courses from any of the focus areas above (i.e., Public Relations and Organizational Culture; International/Intercultural Communication and Global Culture; Public Advocacy and Democratic Culture). These can be taken in a particular focus area or distributed across focus areas.

OR

Option B – Media Production Specialization
Select two courses in the area of media production:
JASS 303: Communication Design
JASS 315: Writing and Producing for Digital Media
JASS 345: Audio Production
JASS 350: TV Production
JASS 405: Web Design
JASS 410: Advanced Media Production

Cognate: 3 hrs
Must be an upper level course from any CASL discipline (excluding Communication and Speech, and MATH 385, 386, 387).
Required Experiential Education

Humanities Internship, Co-Op, or Senior Thesis: .......... 3 hrs
On-the-job experience gained through an internship or co-op is invaluable for students of any major. Because of this, all Communications students are required to participate in an internship, co-op or senior thesis. Many new college graduates lack the “soft skills” that employers seek. Communications graduates at the University of Michigan-Dearborn will have a distinct advantage. There is a seminar component to both the internship and the co-op.

The senior thesis is for students who have prior communications industry experience and would like to relate their experience to the theory and practice of communications without having to spend time in the field.

Notes:
1. A maximum of 63 hrs of COMM and SPEE may count toward the 120 hrs required for graduation.
2. At least 15 of the 27 upper level hours in the COMM major must be elected at UM-D.

MINOR OR BGS/LIBS AREA OF FOCUS
A minor or area of focus in Communication consists of fifteen hours of approved upper-level courses in COMM/SPEE. Of the fifteen hours, three hours must be in a Speech course. In addition, students must complete the two prerequisites listed below to obtain a minor or area of focus in Communication.

Prerequisites
COMM 220 Survey of Mass Communication
SPEE 101 Principles of Speech Communication

Public Relations Certificate:
The public relations certificate requires the following courses:
COMM 260: Public Relations Principles
JASS 2015: Fundamentals of Journalism
COMM 300: Communication Research Methods
COMM 360: Social Media for Public Relations
COMM 460: Public Relations Campaigns
COMM 477: Professional Communication Ethics

Notes Regarding PR Certificate Program:
1. A minimum 2.0 cumulative GPA and a minimum of twelve earned hours completed at UM-Dearborn are required for admission to the program.
2. A maximum of nine credit hours may simultaneously count toward the PR certificate and toward the Communication major.
3. A maximum of two transfer courses (six credit hours) may count toward the PR program.
4. A minimum 2.0 GPA in the courses counting toward the PR certificate and minimum 2.0 cumulative GPA are required at the time of graduation and/or posting of the certificate.

Communication (COMM) COURSE OFFERINGS

COMM 220 Survey of Mass Communication
3.000 Credits
Prerequisites: COMP 106 or CPAS 40 or COMP 220 or COMP 270 or COMP 280

Course covers historical, economic, theoretical and research foundations of various mass media of communication: newspapers, magazines, radio, television and others. Includes study of the functions of media, and their creative and destructive potential in society. Textbook study and critical analyses of media products: advertisements, news stories, TV programs. (F,W).

COMM 260 Public Relations Principles
3.000 Credits
Explores how public relations, as an area of communications management and production, can contribute to an organization’s success. Provides a comprehensive introduction to the field of public relations, including: history and contemporary professional status of the public relations practitioner; role of public relations as a management discipline; major areas of public relations work, including media relations, public affairs, issues management, lobbying, organizational relations, development; techniques of public relations production - planning and presentation - with attention to the uses of specific tools available to practitioners, i.e., news releases, brochures, multimedia, Internet communications, special events. (F,W).

COMM 290 Communications Practicum
3.000 Credits
Prerequisites: COMP 106 or CPAS 40 or COMP 220 or COMP 270 or COMP 280

COMM 290 (Practicum) provides introductory instruction and practice in a number of practical communications skills, with the field and focus changing each time the course is offered. (AY).

COMM 300 Communication Research Methods
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40

Gives detailed view of landmark research studies in the field. Acquaints students with logic of research inquiry, design and analysis, including questions of validity, reliability, causation, etc. Imparts basics of various research methods used in the communication field, such as survey interviews, depth interviews, focus groups, content analysis, and rhetorical analysis. Students design and conduct at least one study in communication, individually or in groups. (F,W).

COMM 306 Comparat. American Identities
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: COMP 106 or CPAS 40 or COMP 220 or COMP 270 or COMP 280

This course will confront and complicate the following key questions: what does it mean to be an American? What is American culture? Participants in this course will respond to the questions central to the American Studies field by reading and discussing historical, sociological, literary, artistic, material culture, political, economic, and other sources. Students will use this interdisciplinary study to examine the multiple identities of Americans - as determined by factors such as gender, race, class, ethnicity, and religion. While emphasizing the diversity of American culture, participants will consider some core values and ideas uniting America both in historical and contemporary society. Students will be invited to seek out and share fresh narratives of the American experience.
COMM 317  Case Studies in Tech Writing  
3.000 Credits  
Must be enrolled in one of the following classes:  
   - Junior  
   - Senior  
   - Graduate  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

COMM 317 offers both practical and conceptual studies in technical writing and is open to non-technical as well as technical students. The course offers in-depth treatment of the communication problems and various document designs common to technical writing professionals. Instructional format includes lectures and discussions based on case material derived from actual events, followed up by preparation of written documents. Topics include document design, language barriers, and the role of the technical documents in product liability. (F,W,S).

COMM 340  Professional Communication  
3.000 Credits  
Must be enrolled in one of the following classes:  
   - Junior  
   - Senior  
   - Graduate  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

Course covers essential skills of professional written and oral communication within the organization; the purpose, process, and problems of professional communication; the influence of organizational structure; audience analysis; the writing and editing of reports (formal and informal, including memo reports) and of professional correspondence; the preparation of graphics; and the planning and delivery of oral presentations. May count toward Communications minor. (F,W,S).

COMM 360  Social Media for PR  
3.000 Credits  
May not be enrolled in one of the following Classes:  
   - Freshman  
Prerequisites: COMM 260  

This course explores the emerging social media technologies and studies their application in contemporary PR practice. It examines the nature and role of social media in organizations and explores technologies including blogs, Microblogs, collaboration tools, podcasts, viral video, social bookmarking, mobile platforms, and other evolving technologies.

COMM 364  Writing for Civic Literacy  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

In Writing for Civic Literacy, students will study how politicians, the media and critical citizens use language to engage with the broader community. Students themselves will learn to use language to become more active, well-informed citizens. They will study rhetorical awareness, audience analysis and persuasive writing techniques and put those lessons to use in community settings. They will perform community service at agencies of their choosing and use those experiences as objects of analysis, researching the social context in which those agencies operate and writing analytically about the agencies. Further, students will synthesize classroom lessons and real-world experience by executing writing tasks for and with the agencies (these tasks might include editorials for the local press, informational webpages and fundraising materials).

COMM 366  Public Comm and Culture Stdies  
3.000 Credits  

This gateway course provides the theoretical and methodological foundation to embark on the study of three key interrelated spheres of communication: Public and Organizational Culture, Public Advocacy and Democratic Culture, and Intercultural Communication and Global Culture. Students will have the opportunity to examine salient societal issues within each of the major areas, and explore connections between the different areas. Through a variety of class exercises and both individual and collaborative projects, the course will help students to acquire an analytical and practical "toolkit" enabling them to function effectively as communicators in culturally diverse organizations and civic contexts.

COMM 381  Postwar European Cinema  
3.000 Credits  
Must be enrolled in one of the following classes:  
   - Senior  
   - Sophomore  
   - Freshman  
   - Junior  

The course will concentrate on a series of films from various European countries with a focus on the socio-political issues, historical events and cultural preoccupations that have defined and also challenged European societies from WWII to the present. Zeroing in on the construction of European identities, the course will analyze and compare modes of narrating national, class, racial, sexual and social differences in different European nations. Themes such as memories of war and the Holocaust, new conflicts, class, immigration, women's rights, gender, and East-West relations will be addressed. The course will thus privilege a cinema that offers a "crit," a story. Particular attention will be given to discourses on otherness and on the ways in which film culture has reflected, reinforced, reshaped and, in some instances, contested Europe's past and current dominant ideologies, and identities. Readings by cultural historians and analysts will provide the context for an understanding of the films. The course will conclude with a discussion of the possible existence of a specific postwar European Cinema.

COMM 390  Topics in Communication  
3.000 Credits  

A course in nonfiction narrative that focuses on memoir writing, emphasizing technique. Students will read book-length examples by Azar Nafisi, Nelson Mandela, Frank Conroy, Mar Karr, Susanna Kaysen, Frank McCourt, Ann Patchett and Joan Didion, examining these books as models for writing.

COMM 397  Communications Thesis  
3.000 Credits  
Must be enrolled in one of the following classes:  
   - Senior  
   - Junior  

A thesis project that is the culmination of the Communications major. Students will choose the project area and write a thesis (40-50 pages) under the direction of a Communications faculty member. The thesis option is available only to students with substantial practical experience in the communication field, and requires the approval of Communications faculty.
COMM 398 Independent Studies-Comm
1.000 TO 3.000 Credits
Readings, supervised practice, or analytical assignments in Communications, determined in accordance with the needs and interests of those enrolled. May count toward Communications minor. (F,W).

COMM 420 Critical Media Studies
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
Course presents various critical approaches to the study of the media. Perspectives include political economy, cultural studies, critical theory of the Frankfurt school and feminism. Through readings and first hand analysis of the media students will delve deeply into the institutional underpinnings, content, use and reception of media. There will be special emphasis on how broader economic, cultural and technological changes influence our experience of media in everyday life as creators, citizens, audiences and consumers.

COMM 430 International Communications
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
Course examines the relationship between globalization and communication from various vantage points such as cultural imperialism, global media flows, and hybridity theory. Students use these theoretical approaches to understand how people in particular locations experience, adapt, resist and modify globally circulating aspects of media, popular culture, news and information. Through critical responses to readings, class exercises, individual and team projects, students also explore how global pressures and changes influence the way people understand and project their identities, buy and sell communication as a commodity, negotiate borders, and create social change.

COMM 442 20th Centry Public Argument
3.000 Credits
Prerequisites: SPEE 101
This class is a survey of American public address in the 20th Century. Students will examine and critically analyze several of the most significant speeches and rhetorical movements of the last one hundred years. Through lectures, discussions, and analysis of speeches and other artifacts, we will focus on the relationship between rhetoric and history, and how theories of rhetorical action help us appreciate the role of discourse in the effective functioning of a democratic system. Students will learn to utilize several critical perspectives as a means of understanding both historical and contemporary political discourse. (W).

COMM 450 Principle of Organization Comm
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: COMM 340 or COMM 440
Course examines how communication networks function in organizations. Purpose: to provide an organizational context and conceptual framework for the practice of professional writing and speaking skills. Writing projects include a research report, a case study, and several shorter papers, practical and analytical, on assigned topics. Students cannot receive credit for both COMM 450 and COMM 550. (OC).

COMM 455 Gender and Media Studies
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
  Sophomore
  Junior
Prerequisites: WGST 275 or WGST 303 or ANTH 275 or PSYC 275 or SOC 275 or ANTH 303 or PSYC 303 or SOC 303 or HUM 275 or HUM 303 or WST 275
The course will focus on several feminist approaches used in understanding the media and attempting to create social change through the media. The role of media in the definition and reproduction of gender-based hierarchies and in the renegotiation of gender boundaries will both be explored. To this end, both mainstream and women's media will be examined. The course will take a multicultural and international perspective, incorporating concerns of class, race, ethnicity, and nation as these intersect with the study of gender and media. Mainstream and alternative media will be analyzed through readings, films, case studies, in-class collaborative exercises and longer term projects. News, entertainment, and advertising genres will be examined in a variety of media such as the printed press, television, video, film, and the Internet. (W).

COMM 460 Public Relations Campaigns
3.000 Credits
Prerequisites: COMM 260 and COMM 440
Focuses on strategies and tactics involved in planning and implementing a public relations campaign. Extends and refines skills acquired in earlier, prerequisite course work by incorporating management, production, and writing within a four-stage model for planning and action. This model provides a framework for role-playing, case study work, and projects done for evaluation by public relations professionals at local firms. The semester's portfolio of finished communications and "mock-ups" - including planning materials, news releases, brochures, newsletters, Internet communications, video and audio scripts - should demonstrate command of entry-level, professional abilities as a public relations campaign manager and producer. (YR).

COMM 464 Contemporary Rhetorical Theory
3.000 Credits
May not be enrolled in one of the following Classes:
  Graduate
Prerequisites: COMM 201 or COMM 220 or COMM 290 or ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240 or ENGL 250
An examination of contemporary rhetorical theories through study of representative practitioners and related developments in linguistics, philosophy, psychology, communication, and composition and rhetoric. Students may not receive credit for both COMM 464 and COMM 564.
COMM 477  Prof Communication Ethics  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: COMM 340 or COMM 440 or COMM 450  
An examination of professional communication ethics in the organizational context, focusing on important issues, problems, and concepts. This course is designed to help students become conscious of the role of values in a wide range of professional communication situations; to locate organizational behavior in an ethical framework based on considered definitions, standards, perspectives, and criteria for evaluation and analysis; to consider individuals as well as organizations as moral agents in a changing and complex universe; and to analyze topical cases on emergent issues in communication ethics. Some sample topics: ethics in decision-making and conflict-resolution; privacy and confidentiality; sexual harassment; whistleblowing; the "engineering" of consent; corporate image and ethos; issues in documentation, record-keeping, and technology; "issues management" and corporate responsibility; groupthink; obedience and personal responsibility; employee socialization. Students cannot receive credit for both COMM 477 and COMM 577. (OC).

COMM 481  Gender and Globalization  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Arts, Sciences&Letters  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: or HUM 303 or SOC 303 or PSYC 303 or WGST 303 ANTH 303  
Mass media, politics, and academia are full of references to globalization, and a future "world without borders." This interdisciplinary course considers the implication of globalization for women's lives, gender relations, and feminism. Topics covered include the global factory, cross-cultural consumption, human rights, global communications, economic restructuring, nationalism, and environmental challenges. Rather than survey international women's movements, this course explores how globalization reconfigures identities and locations and the political possibilities they create. (AY).

COMM 570  Adv Technical and Prof Comm  
3.000 Credits  
Review and practice of advanced professional communication skills, especially audience analysis, assessment of organizational contexts and field-specific conventions, document design, varieties of formal and informal report writing, proposal writing, abstracting, editing, and documentation. Students will study specialized formats and communication issues specific to their professional needs, and will develop their abilities to present technical and complex information to a variety of audiences, both general and specialized, in a variety of professional contexts. Appropriate for graduate students in professional degree programs, such as engineering, management, public administration, and education. Undergraduates must have permission of instructor.

Comparative Literature  
MINOR OR BGS/LIBS AREA OF FOCUS ONLY  
A minor or area of focus consists of 12 hours of upper-level credit in comparative literature (COML).

Comparative Literature (COML)  
COURSE OFFERINGS  
COML 221  Great Books I: Ancient World  
3.000 Credits  
Introduction to masterpieces of Western world literature from the ancient world. Readings include the Bible, Iliad, Odyssey, Greek drama, and Roman authors. (YR).

COML 222  Great Books II  
3.000 Credits  
Introduction to masterpieces of Western world literature from the Middle Ages and Renaissance. Readings include Dante, Chaucer, Wolfram, Cervantes, Shakespeare, Molieres, and Racine. (YR).

COML 223  Great Books III: Modern Era  
3.000 Credits  
Introduction to masterpieces of Western world literature from the Modern Era. Readings include Swift, Voltaire, Rousseau, English romantic poets, fiction and drama of the 19th and 20th century. (YR).

COML 301  Literary Criticism  
3.000 Credits  
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
This course introduces literary criticism and theory from Aristotle to the present, focusing on the changing concept of literature's nature and function. Lectures, readings, and discussion cover such critics as Aristotle, Dryden, Pope, Johnson, Wordsworth, Coleridge, Arnold, T. E. Hulme, I. A. Richards, T. S. Eliot, and such movements as New Criticism, Phenomenology, Reader-Response, Archetypal Criticism, psychological approaches to literature, New Historicism, Marxism, Feminism, and Deconstruction. (OC).

COML 340  Modern European Short Fiction  
3.000 Credits  
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200  
A careful reading of between 10 and 15 short novels (in English translation) with particular attention being paid to the manner in which their plots and characters express contemporary cultural issues. Such works as Dostoyevsky's Notes from Underground, Conrad's Heart of Darkness, and Unamuno's Abel Sanchez will be included.
COML 341  Mod Eur Poetry in Translation  
3.000 Credits  
Prerequisites: ENGL 231

Movements and genres of modern European poetry, from the Symbolists to the present. Included will be such poets as D'Annunzio, Cavafy, Rilke, Blok, Mayakovsky, Valery, Eluard, Pavese, Seferis, Akhmatova, Mandestram, Marinetti, Trakl, Mistrale, Vallejo, Morgenstern, Apollinaire, Loren, Transtrømer, Brodsky, Milosz, and others in translation. (OC).

COML 342  Myth and Motif  
3.000 Credits  
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200

A study of archetypal figures and thematic motifs. Their recurrent appearance in different literary periods and genres and their lineage will be examined in order to increase understanding of the works themselves and of the ages which produced them. A selection will be made from classical myth, Biblical narrative, and historical sources. Thus the figures may vary from Oedipus and Cain to Faust and Don Juan. Motifs or story patterns may include such devices as the spiritual quest, the journey into Hell, or the patricide prophecy.

COML 344  Modern Literature: the Novel  
3.000 Credits

A careful examination of five or six significant modern novels in translation, with particular emphasis on their influence on the development of the novel, and their reflection of contemporary cultural issues. The works of such authors as Flaubert, Dostoyevsky, Tolstoy, Gide, Joyce, and Mann will be included.

COML 345  Modern Literature: Drama  
3.000 Credits

A careful reading of selected plays from Ibsen to the contemporary theater, designed to develop appreciative criticism and an understanding of the plays in their relationships to movements to modern drama, theater, background, social forces and trends of thought.

COML 347  Clas Lit in Engl Translation  
3.000 Credits  
Must be enrolled in one of the following classes: Junior  
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200

A study of masterworks of ancient Greek and Roman literature with special attention to the development of epic, tragedy, comedy, and lyric poetry. Authors studied will include Homer, Virgil, Aeschylus, Sophocles, Euripides, Aristophanes, Terence, and Plautus.

COML 355  Urban Voices: France and Italy  
3.000 Credits  
Must be enrolled in one of the following classes: Freshman

This course is an interdisciplinary approach to the concepts of urban development and literary, visual and cultural responses to the process of urbanization mainly in Rome and Paris. The readings will illustrate how the city shaped the writers’ creativity, as well as how their works interpret urbanization.
The course "This American Life: Immigrant Literature and the American Dream" is a literary and cultural analysis of the literature of immigration. The readings are from works of fiction in a variety of genres, and are written by American and non-American prize-winning authors. Their common denominator is the pursuit of the American Dream and its many multifaceted aspects. The themes explored include: assimilation, acculturation, diversity, language, subculture, intertextuality, nostalgia, belonging, and double identity. Student wishing to take this course for graduate credit should sign up for COML 555. Students cannot receive credit for both COML 455 and COML 555.

**Composition & Rhetoric**
*(not a field of concentration)*

For information on placement into first-year composition courses, please see the Writing Program section under Special Programs.

**WRITING CERTIFICATE**

Nine credit hours of writing (at least one course must be COMP; minimum B grade required in each course). Here is a partial list:

- ART 390A ("Graphic Novel"); COML/HUM/WGST 433; COMM 317, 340, 436; COMM/COMP 310, COMP/ENGL 327, COMP/COMM/ENGL 364, COMP/COMM/ENGL 464, COMP/ENGL 468, COMP 390C, 485; ENGL 323; FREN 302; GER 301; JASS 307, 310, 315, 330, 331, 436, 467; SPAN 301

Practicum experience required (minimum 30 clock hours; must include substantial writing/editing component). Possible ways to fulfill practicum requirement include:

- Independent Study
- Internship (HUM/HIST 485)
- Co-op (LIBS 300+395)
- Peer Consulting in Writing Center
- Community Service Work/
- Volunteerism/Civic Engagement

**NOTES REGARDING WRITING CERTIFICATE PROGRAM:**

1. At most, one transfer course, or UM-Dearborn course that does not appear on the list of approved courses, may be counted toward the certificate, if approved by petition.
2. Students, at the time that they are completing the Writing Certificate, must submit a Memorandum of Reflection, a sample of written work, and a Writing Certificate Completion Sheet. See LCC Department for details.
3. Courses used toward another major, minor or certificate program may simultaneously count toward the Writing Certificate.

**Composition (COMP)**

**COURSE OFFERINGS**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMP 095</td>
<td>Engl Second Language I</td>
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An alternative to COMP 099. Specifically designed to address the needs of students for whom English is a second language and who are not yet proficient in English. Offers intensive practice in basic English grammar and rhetoric through the writing of short papers and the reading and discussion of appropriate texts. Focuses on the conventions of written English. (OC).

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<tbody>
<tr>
<td>COMP 099</td>
<td>Writing Techniques</td>
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Course is designed to help the less-prepared student qualify for COMP 105 by providing a review of basic grammar and syntax and frequent practice in writing short papers to develop habits of unified, coherent, and correct composition. Student writing is complemented by the reading and analysis of short prose pieces selected to help students read for understanding and to learn more about writing through the study of professional authors. Must be taken by students who do not qualify for COMP 105. (F,W).

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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMP 105</td>
<td>Writing &amp; Rhetoric I</td>
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</table>

Prerequisites: COMP 099 or CPAS 20

Comp 105: Focuses on the study and practice of writing and rhetoric, with special emphasis on the writing process. Students write and read critically a range of texts, and consider academic and nonacademic genres and conventions. (F,W).

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>COMP 106</td>
<td>Writing &amp; Rhetoric II</td>
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</table>

Prerequisites: COMP 105 or CPAS 30 or COMP 110

Comp 106: Focuses on the study of writing and rhetoric through composing a range of researched texts. Students study the rhetorical choices effective for writing in different media, and learn practical strategies for academic inquiry and for giving useful feedback in response to the writing of others. Such strategies include those related to the use of electronic and print resources, peer-review and revision. (F,W).

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COMP 110</td>
<td>Honors Writing &amp; Rhetoric I</td>
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</table>

Honors Program introductory composition course. Fulfills the Composition I requirement for students in the Honors Program. Course focuses on college-level expository writing techniques through seminar-type analysis of texts read in the Honors Program and through individualized and group writing workshops. Assignments include at least five finished papers incorporating revision. Honors students, like other students in first-semester composition, must pass the standard exit exam for COMP 105 to continue on to COMP 220 (or COMP 106). (F).

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<th>Course Code</th>
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<tr>
<td>COMP 220</td>
<td>Honors Writing &amp; Rhetoric II</td>
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</table>

Prerequisites: COMP 110 or CPAS 30 or COMP 105

Honors Composition fulfills the Composition II requirement for students in the Honors Program. It is designed to develop research, writing, and editing skills and to give the student experience in argumentation and persuasion and in the interpretation of literary texts. Satisfies for honors students the 200-level prerequisite for upper-division English courses, except for English concentrators. (YR).

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<tr>
<th>Course Code</th>
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<tr>
<td>COMP 223</td>
<td>Intro to Creative Writing</td>
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</table>

Prerequisites: COMP 106 or CPAS 40 or COMP 220 or COMP 270 or COMP 280

An introduction to the writing of poetry, the short story, and/or the play. Considerable writing analysis, criticism, and discussion. (F,W).
Further explorations in exposition and argumentation to develop and enhance the student's ability to write essays and/or articles. Review of basics of grammar and style. Intensive practice in writing and careful examinations of appropriate books and shorter prose works. Written assignments of 500 to 2000 words. (F,W).

COMP 327  Advanced Exposition
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
A study of rhetorical theory and its application to various types of expository essays. Writing assignments will reflect the types of essays studied. May be repeated to a maximum of 6 credit hours.

COMP 267  Arab & Arab American Workshop
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
The Arab and Arab American Writers Workshop is a creative writing workshop focusing on poetry and fiction. Students will explore Arab American literature, writers, and themes. Students are expected to work on their own manuscripts as well as critique outside readings. The workshop will be conducted under the guidance of Arab and Arab American faculty and is open to all students.

COMP 270  Tech Writing for Engineers
3.000 Credits
Prerequisites: COMP 105 or COMP 110 or COMP 270 or CPAS 30 or COMP 280
Instruction and practice in designing technical reports. Students study the rhetorical problems facing the professional engineer in industry and learn practical strategies for analyzing and communicating technical information to both technical and non-technical audiences. Topics include audience analysis, technical research methods, report formats (written and oral, formal and informal), argumentation and persuasion, editing. This course fulfills the Composition II requirement for engineering students only. (F,W).

COMP 280  Business Writing & Rhetoric
3.000 Credits
Prerequisites: COMP 105 or COMP 110 or CPAS 30
COMP 280 focuses on instruction and practice in composing and designing business documents, including abstracts, memos, email, letters, reports, resumes, proposals, and slide presentations. Students study the rhetorical problems facing business professionals and learn practical strategies for analyzing business information and communicating with professional and non-professional audiences. Such strategies include those related to the use of electronic resources, peer-review and revision. This course fulfills the Composition II requirement for pre-business students.

COMP 310  Narrative Journalism
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
Students learn to identify, understand and use the techniques of fiction in the service of nonfiction material. While studying the texts as literature, students are also encouraged to view them as models for writing. Assignments include the writing and revising of articles, based on research and interviews, and writing in story form, drawing on literary techniques. (YR).

COMP 390  Topics in Composition
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
Examination of problems and issues in selected areas of rhetoric and composition. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topic differs. (OC).
A significant writing project in non-fiction or fiction prose developed in accordance with the needs and interest of those enrolled and agreed upon by the instructor. Participants may also study texts of published authors. May be repeated for a maximum of 6 credit hours.

COMP 436 Memoir and Travel Writing
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280

A course in narrative non-fiction that focuses on memoir and travel writing. Reading involves several books as well as classic essay-length examples. Assignments include both short analytical papers and the writing and revising of three original articles, based on research, interviews, memory, and observation, and drawing on literary techniques. (YR).

COMP 464 Contemporary Rhetorical Theory
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280

An examination of contemporary rhetorical theories through study of representative practitioners and related developments in linguistics, philosophy, psychology, communication, and composition and rhetoric. Students may not receive credit for both COMP 464 and COMP 564.

COMP 466 Feminist Rhetorical Theories
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280

An introduction to the work of major twentieth century feminists working in rhetoric and related fields. Students examine recurring themes of language, meaning, ethics and ideology, and practice writing strategies which address rhetorical and ethical concerns central to feminist/academic writing.

COMP 468 Read/Writ Young Adult Fiction
3.000 Credits
Prerequisites: COMP 106 and (ENGL 223 or COMP 223)

In this course participants will explore the young adult novel from the point-of-view of a reader and a writer. They will read recently published and critically acclaimed popular young adult novels. They will use these texts to explore such issues as gender, race and identity as they relate to young adult lives and their respective cultures generally. They will use these texts as models for the production of their own texts and will consider if and why young adult novels are abbreviated or limited in relationship to adult literature. In addition to reading about ten novels, they will complete several creative exercises leading up to a final portfolio.

In this course we will investigate why and how people write for particular audiences and in a variety of contexts. Subjects will include: cognitive and social theories of writing and the writing process; theories of persuasion, writing across the curriculum, writing for multiple audiences, writing in the workplace, writing for self and for publics, and teaching writing. The course will be useful to students interested in teaching writing at the K-12 level, those interested in careers in communication and those who wish to better understand how writing promotes personal and societal change. (YR)

Computer and Computational Mathematics

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

The courses in Computer and Computational Mathematics (CCM) develop skills in applying mathematical algorithms in ways useful in real world situations. A minor or area of focus consists of 12 hours of upper-level credit in courses specifically selected as CCM courses.

See College of Engineering and Computer Science for a major in Computer and Information Science.

Computer & Computational Mathematics (CCM)

COURSE OFFERINGS

CCM 150 Computer Science I
4.000 Credits
Prerequisites: MATH 115 *
Co-requisites: CCM 150L

An introduction to structured computer programming covering problem formulation, algorithm development, the C++ programming language, program testing and debugging, capabilities and elements of computer organization, and object-oriented software methodologies.

CCM 172 Computing Environ for Math
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
Prerequisites: MATH 115

This course covers introductory programming techniques for Mathematics majors. Students learn to program in sage and python. Topics include data types, variables and assignments, decisions, loops, functions, recursion, arrays, and objects. Programming assignments focus on problems that are mathematical in nature, giving students an opportunity to use simulations to understand and verify familiar mathematical results. This course, or CIS/CCM 150 satisfies the programming requirement for the Mathematics concentration.
CCM 305  The Theory of Computation
3.000 Credits
Prerequisites: CIS 175 and (CIS 200 or IMSE 200)

An introduction to the foundations of computer science including the theory of computability, Turing machines, automata, and formal languages.

CCM 315  Applied Combinatorics
3.000 Credits
Prerequisites: MATH 200 and (MATH 217 or MATH 227)

An introduction to methods and applications of enumerative and configural combinatorics. Students study several elegant and useful techniques for counting and/or generating the elements in large and unwieldy finite sets. Students also study topics in graph theory that are applicable to real world problems. Topics include basic counting principles, the principle of inclusion-exclusion, generating functions and recurrence relations. Topics from graph theory include graph model paths, circuits, cycles, and connectedness; additional topics include the theory and applications of planarity, coloring, directed graphs, networks, and network flows.

CCM 372  Computing with Mathematica
3.000 Credits
Prerequisites: MATH 217 or MATH 227

The course explores a variety of topics from different areas of undergraduate mathematics including calculus, matrix algebra, number theory, geometry, and discrete mathematics. Students learn to design customized Mathematica functions to solve specific problems in these areas using the symbolic, computational, graphics, and programming tools provided within Mathematica.

CCM 390  Topics in Computational Math
1.00 TO 3.000 Credits

A course designed to offer selected topics in different areas of applied mathematics. The specific topics will be announced together with the prerequisites for each separate offering. Course may be repeated when the topics covered differ.

CCM 399  Independent Studies
1.00 TO 3.000 Credits

Readings or analytical assignments in Computers and Computational Mathematics in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor.

CCM 404  Dynamical Systems
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)

The aim of this course is to survey the standard types of differential equations. This includes systems of differential equations, and partial differential equations, including for each type, a discussion of the basic theory, examples of applications, and classical techniques of solutions with remarks about their numerical aspects. Also included are autonomous and periodic solutions, phase space, stability, perturbation techniques and Method of Liapunov. (AY).

CCM 451  Computer Graphics
3.000 Credits
Must be enrolled in one of the following classes: Graduate

Prerequisites: ( CCM 350 or CIS 350 or IMSE 350 ) or ( ECE 370 and MATH 276 ) and ( MATH 215 or MATH 205 ) and ( MATH 217 or MATH 227 )

Basic geometrical concepts: graphics output primitives, two-dimensional transformations, windowing and clipping, three-dimensional viewing, visible surface detection methods, graphical user interfaces.

CCM 458  Introduction to Wavelets
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)

This course will introduce the students to theory and application of wavelets using linear algebra. Topics will include the discrete Fourier transform, the fast Fourier transform, linear transformations, orthogonal decomposition, discrete wavelet analysis, the filter bank, Haar Wavelet family, Daubechies's Wavelet family, and applications. Students cannot receive credit for both MATH 458 and MATH 558. (OC)

CCM 472  Intro to Numerical Analysis
3.000 Credits
Prerequisites: MATH 217 or MATH 227

Solution of linear systems by Gaussian elimination, solution of nonlinear equations by iterative methods, numerical solutions of ordinary differential equations, data fitting with spline functions, numerical integration, optimization. (F).

CCM 473  Matrix Computation
3.000 Credits
Prerequisites: MATH 217 or MATH 227

A study of the most effective methods for finding the numerical solution of problems which can be expressed in terms of matrices, including simultaneous linear equations, orthogonal projections and least squares, eigenvalues and eigenvectors, positive definite matrices, and difference and differential equations. (AY).

Cooperative Education Program
(not a field of concentration)

Cooperative Education is a nationally recognized educational plan that integrates academic study with paid, real world work experience. UM-Dearborn cooperates with business, industry, government and other private and public agencies to offer work assignments related to students' educational programs and career objectives.

Students may earn a maximum of 10 S/E credit hours through co-op work assignments of one to three credit hours each, and a mandatory one credit-hour seminar. Students should be aware that applying for co-op does not guarantee job placement. Liberal arts students are advised to use curriculum electives to acquire the technical skills needed to improve their marketability and to avail themselves of career counseling available through the Career Services Office.

For eligibility information, see Cooperative Education in Special Programs, or contact the Cooperative Education Office, Room 1038 CB, (313) 593-5188.
Criminal Justice Studies

Criminal Justice Studies is a field that focuses on the study of criminal behavior and society’s response to it. The field draws upon the insights of the social and behavioral sciences, the physical sciences, statistics, and the humanities to illuminate the issues of maintaining social order in a constitutional democracy committed to individual freedom, equality, and justice. More specifically, the field focuses on the causes and prevention of criminal behavior. The criminal justice system is composed of the police agencies, prosecutors, the legal profession, the courts, and correctional agencies, among others. The system is part of a larger social system which invariably influences the effectiveness and fairness of law enforcement. Criminal justice analyzes system responses to the changes in social values and law enforcement. The program in Criminal Justice Studies at UM-Dearborn prepares students for diverse careers in law, justice, public administration, policy analysis, public security, and for graduate work in the social and behavioral sciences.

MAJOR REQUIREMENTS ........................................ 30-31 hours

Required Core Courses ........................................... 9 hours
CRJ 200 Introduction to Criminal Justice Studies
CRJ 468 Criminology
CRJ 363, Applied one course from the following:
CRJ 480, Criminal Justice Theory
CRJ 489, Law, Crime, and Society

Special Topics in Criminal Justice ................................ 3 hours
CRJ 467 Drugs, Crime, and Justice
CRJ 470 Current Issues in Criminal Justice
CRJ 472 Correctional Systems
CRJ 473 Race, Crime, and Justice
CRJ 474 Cyber Crimes
CRJ 475 Digital Evidence
CRJ 483 Justice, Crime and the Environment
CRJ 490 Topics in Criminal Justice

Ethics ............................................................... 3 hours
CRJ 240 Ethics
CRJ 308 Moral and Political Dilemmas
CRJ 363 Criminal Justice Systems and Policy
CRJ 445 Seminar in Contemporary Ethical Theory
CRJ 482 Legal Ethics

Social Justice ...................................................... 3 hours
CRJ 322 Psychology of Prejudice
CRJ 323 Urban Politics
CRJ 350 Poverty and Inequality
CRJ 369 Civil Rights Movement
CRJ 384 Immigration in America
CRJ 403 Minority Groups
CRJ 423 American Social Classes
CRJ 435 Urban Sociology
CRJ 443 Gender Roles
CRJ 455 Immigrant Community in North America
CRJ 461 Women in Prison
CRJ 466 Drugs, Alcohol, and Society
CRJ 467 Drugs, Crime, and Justice
CRJ 476 Inside Out Prison Exchange
CRJ 483 Justice, Crime and the Environment

Law and Society ................................................... 3 hours
CRJ 302 Theory of Law
CRJ 316 American Judicial Process

CRJ 335 Philosophy of Law
CRJ 362 Women, Politics, and the Law
CRJ 413 American Constitutional Law
CRJ 414 Civil Rights and Liberties
CRJ 416 Criminal Law
CRJ 453 Sociology of Law
CRJ 471 Comparative Criminal Justice Systems
CRJ 489 Law, Crime, and Society

Human Interaction & Social Control ............................. 3 hours
CRJ 325 Psychology of Interpersonal Relations
CRJ 382 Social Psychology
CRJ 407 Psychology of Adolescence
CRJ 421 Group Processes
CRJ 440 Abnormal Psychology
CRJ 446 Marriage and Family Problems
CRJ 447 Family Violence
CRJ 465 Deviant Behavior and Social Disorganization
CRJ 469 Juvenile Delinquency
CRJ 480 Applied Criminal Justice Theory

Research Methods .................................................. 3-4 hours
CRJ 300 Political Analysis
CRJ 383 Introduction to Statistics
CRJ 410 Social Research (4 cr. hrs.)
CRJ 425 Lab in Social Psychology (4 hrs.)

Internship or Co-op Experience .................................. 3-6 hours
CRJ 478 Criminal Justice Studies Internship (3-6 hrs.)
CRJ 485 Psychology Internship (3-6 hrs.)
CRJ 494 Political Science Internship Seminar (3 hrs.)
CRJ 495 Political Science Internship (3-6 hrs.)
CRJ 497 Washington, DC Internship (3-6 hrs.)
LIBS 300 Co-op Seminar (1 hr.)
LIBS 395 Co-op Education Work Assignment (1-3 hrs.)
LIBS 396 Advanced Co-op Education Work Assignment (1-3 hrs.)

Internship/Co-op Experience
An internship or co-op experience of 3 to 6 credit hours is required. The CRJ internship provides supervised field experience in a variety of occupational agencies focusing on criminal justice and law enforcement. Each intern spends a minimum of 80 hours on site and attends a weekly seminar. Currently employed sworn federal, state, and local officers or agents may waive, through petition, the internship field experience. All students are required to register for and attend the weekly seminar.

NOTES:
1. Any one course may be used to satisfy only one requirement within the major.
2. A maximum of 61 hrs. of CRJ can count toward the 120 hrs. required for graduation.
3. A maximum of 6 hrs. of internship (CRJ 478, 485, 494, 495, 496, 497) credit may count in the minimum 30 hours for the major.
4. At least 15 of the upper level hours in CRJ must be elected at UM-D.
5. Some upper level CRJ courses will require SOC 200 or 210, or PSYC 170 or 171 as prerequisites.

MINOR or BGS/LIBS AREA OF FOCUS
A minor or area of focus consists of the following courses: CRJ 200, 468; one course from CRJ 363, 480 or 489; and 6 additional hrs. from CRJ 363, 470, 471, 472, 474, 475, 480, 482, 489, 490.
The criminal justice program is committed to offering both a day and evening/weekend program. Evening/weekend students should watch for infrequently offered courses and take them when available. If a required course is not offered during a reasonable period, a full-time evening student may petition to substitute another course.

Criminal Justice Studies (CRJ)

COURSE OFFERINGS

CRJ 200 Intro to Criminal Justice
3.000 Credits
This course provides an introduction to issues of crime and neighborhood disorder as well as society's responses to these problems. We will examine the nature and causes of crime, criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, and corrections. The history of the criminal justice system, terminology and career opportunities will also be discussed.

CRJ 240 Ethics
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
A study of ethical concepts and theories. Typical questions: Is the morality of an action based on its results or on the intent of the person acting? Is ethics purely rational? What makes a good person? Ethical principles may be applied to such issues as abortion, capitalism, war, and capital punishment. (F, W).

CRJ 300 Political Analysis
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Introduction to research design, data collection and analysis, sampling, and statistics for social scientists. Should be elected as soon as possible after the declaration of major. POL 101 or equivalent recommended. (F, W).

CRJ 302 Theory of the Law
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
A comprehensive introduction to the theoretical foundations and the political functions of law, with special emphasis on the different moral justifications of law; the relation between law and justice; the relation between law and freedom; due process and fairness in any legal system. This course is designed to have special relevance for those considering law as a career. POL 101 or equivalent recommended. (OC).

CRJ 308 Moral and Political Dilemmas
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Senior
Junior
This course focuses on the tensions and relations between personal morality and political action by examining the moral aspect of contemporary policy issues such as the right to life, environmental policy, and discrimination. POL 101 or equivalent recommended. (YR).

CRJ 316 The American Judicial Process
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
An analysis of American legal institutions, processes, doctrines, and their relationship to the formulation of public policy and the solution of social problems. POL 101 or equivalent recommended. (AY).

CRJ 322 Psychology of Prejudice
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or 171
A consideration of ethnic (including racial, sexual, and religious) prejudice from the psychological point of view, focusing on the mind of both the oppressor and the oppressed. (AY).

CRJ 323 Urban Politics
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
A survey of the political process in urban areas, giving special attention to the changing roles of cities in American politics. POL 100 or equivalent recommended. (YR).

CRJ 325 Psych of Interpersonal Relation
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or 171
This course presents an overview of theory and research conducted by social psychologists that has been aimed at understanding interactions between individuals. Topics include an exploration of the research process that is used to investigate interpersonal relationships, the processes underlying social perception, friendship, liking, love, close relationships, aggression and violence in interpersonal relationships. (YR).

CRJ 335 Philosophy of Law
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
An examination of some of the important philosophical issues relevant to law and legal theory, including legal punishment, legal responsibility, and the relationship between law and morality. Both classical and contemporary writings will be studied. Prerequisite: a previous philosophy course or permission of instructor. (AY).

CRJ 350 Poverty and Inequality
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
In a middle class-oriented culture, the poor experience many problems and are also considered deviant, which tend to make poverty self-perpetuating. This stratum will be explored with respect to life styles, life changes, contributing factors, characteristics, individual and social consequences, and evaluation of attempted solutions. (YR).
CRJ 362  Women, Politics, and the Law
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Arts,Sciences&Letters
An examination of the political behavior of women in American politics. Included is an analysis of the legal and legislative demands of American women. (AY).

CRJ 363  Crim Justice Syst and Policy
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
The structure and processes of criminal justice administration in America, including analysis of current issues in police behavior, courts, and corrections. POL 101 or equivalent recommended. (AY).

CRJ 369  US Civil Rights Movement
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
A survey of race relations and civil rights activity from the late 19th century to the present. The principal focus, however, is on the period since World War II, especially on the mass-based Southern civil rights movement (1955-1965) and the various policy debates and initiatives of the past thirty years, most notably affirmative action and busing. We also examine critiques of non-violence and integrationism. (AY).

CRJ 382  Social Psychology
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or PSYC 171 or SOC 200 or SOC 201
An introductory study of interrelationships of the functioning of social systems and the behavior and attitudes of individuals. (YR).

CRJ 383  Introduction to Statistics
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Frequency distributions and descriptive measures. Populations, sampling and statistical inference. Elementary probability and linear regression. Use of statistical computer packages to analyze data. No credit for CASL math concentration, minor, or area of focus. Prerequisite: one year of high school algebra. (F, W, S,).

CRJ 390  Topics in Criminal Justice
3.000 Credits
Examination of problems and issues in selected areas of criminal justice. Title as listed in the Schedule of Classes will change according to content. Course may be repeated when specific topics differ. (OC)

CRJ 403  Minority Groups
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
The status of racial and ethnic minorities in the United States with particular reference to the social dynamics involved with regard to majority-minority relations. Topics of study include inequality, segregation, pluralism, the nature and causes of prejudice and discrimination and the impact that such patterns have upon American life. (F, W).

CRJ 407  Psychology of Adolescence
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or 171
Considers adolescence as an interaction of rapid biological and social change. Examines the theoretical and empirical literature in some detail. Prerequisite or permission of instructor. (F, W).

CRJ 410  Quantitative Research
4.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
An introduction to methods of data collection and analysis. Also discussion of research design and the philosophy of social science. (VR).

CRJ 412  Men and Masculinities
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: SOC 200 or SOC 201 or ANTH 101 or WST 275 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303
This course addresses the question, "What is a man?" in various historical, cross-cultural, and contemporary contexts. A major focus on the social and cultural factors that underlie the shape and conceptions of manhood and masculinity in America as well as in a variety of societies around the globe. (AY)

CRJ 413  American Constitutional Law
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: POL 101
A major theme of this course is the development of the constitution, especially focusing on the themes of judicial review: judicial self-restraint and judicial activism; the expansion of executive and legislative powers; and the rise of "substantive due process of law." POL 101 or equivalent recommended. (AY).

CRJ 414  Civil Rights and Liberties
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: POL 101
An analysis of the Bill of Rights and the 14th Amendment, with particular emphasis upon recent landmark or controversial Supreme Court decisions dealing with freedom of speech and religion, rights of criminal defendants; cruel and unusual punishment, right to privacy; civil rights and equal protection clause; and apportionment. POL 101 or equivalent recommended. (YR).
CRJ 416       Criminal Law
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: POL 101
A survey of the major judicial, executive, and legislative
decisions in the field of criminal law. (AY)

CRJ 421       Group Processes
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or PSYC 171 or SOC 200 or SOC 201
Topics treated include group cohesiveness, "group think," the
social structure of groups, emotional factors in group life,
leadership, and development of groups. (YR).

CRJ 423       American Social Classes
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
Stratification of American communities and society: a review of
the findings of major studies and an introduction to
methodology. (YR).

CRJ 425       Lab in Social Psychology
4.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 381 *
A broad introduction to research methods in basic and applied
social psychology. Students will receive training in construction,
implementation, and interpretation of scientific procedures used
in the study of social psychology. Topics include: questionnaire
construction, experimental design, and various multivariate
analytic techniques. (AY).

CRJ 435       Urban Sociology
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
A descriptive study of the form and development of the urban
community with respect to demographic structure, spatial and
temporal patterns, and functional organization. The relationship
of city and hinterland. Social planning and its problems in the
urban community. (YR).

CRJ 440       Abnormal Psychology
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or 171
An introduction to the field of psychopathology, the study of
mental disorders. Includes exposure to a number of historical
and theoretical perspectives, each with their own theories,
methodologies, and treatment approaches. Disorders covered
will include: anxiety and mood disorders, personality disorders,
schizophrenia, sexual disorders, and psychosomatic disorders.
(F, W).

CRJ 444       Gender Roles
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PSYC 170 or PSYC 171 or SOC 200 or SOC 201
This course will investigate the development of gender roles in
childhood and adolescence due to either innate physiological
differences or sociological patterning, the effect of gender roles
upon male-female relationships within our society, and the
possibility of transcending sociological gender roles in alternate
modes of living. (F, W).

CRJ 445       Contemporary Ethical Theory
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: PHIL 240
An intensive study of a topic in recent ethical theory. Topics will
vary with each offering. Among the topics: ethics and law,
utilitarianism, virtue theory, theories of justice, morality and
emotion, ethics and partiality. (AY).

CRJ 446       Marriage and Family Problems
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
Sociological analysis of problems encountered within the
institution of marriage with particular reference to such issues as
choosing a marriage partner, sexual adjustment, occupational
involvement, conflict resolution, child rearing, divorce and
readjustment. (YR).

CRJ 447       Family Violence
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or SOC 201 or SOC 301 or SOC 443 or PSYC 405 or WST 405
Sociological analysis of various forms of family violence which
occurred is proportionately in the lives of girls and women.
Topics such as incest, sexual abuse, date rape, wife battering,
and elder abuse will be situated within the social and cultural
context of contemporary gender relationships. Social and
political responses to the phenomena will be examined.
Permission of instructor is an optional prerequisite. (YR).

CRJ 453       Sociology of Law
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
Various aspects of the relationship between law and society are
explored. After a look at processes of law making, attention is
turned to the administration of law. This involves a study of the
activities of legislatures, courts, police, and correctional agents.
(YR).
CRJ 455 Immigrant Cultures and Gender
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: ANTH 101 or WST 275 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303
The history and culture of immigration since 1850, including:
  (1) formation and perseverance of immigrant communities and interethnic boundaries; (2) relations between the homeland and the immigrant; and (3) impact of migration on family life and gender roles. Prerequisite: ANTH 101 and junior or senior standing. (AY).

CRJ 461 Cops & Cons: Women in Prison
3.000 Credits
Prerequisites: SOC 200 or SOC 201 or WST 275 or CRJ 240 or CRJ 300 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303
Course uses contemporary theories of gendered organizations to frame analyses of prison policies and practices in employment and incarceration as they reflect and reproduce gender inequalities. Analyses will be framed within a restorative justice model, that is, a critique of the current criminal justice system of retributive justice and a paradigm of what an alternative system could be.

CRJ 465 Deviant Behavior/Soc Disorganz
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Prerequisites: SOC 200 or 201
General analysis of the concepts of social deviance and social disorganization: factors producing each condition, the effects of social control measures on the course of deviance and disorganization, consequences for the social system, and the relationship between the two concepts. (YR)

CRJ 466 Drugs, Alcohol, and Society
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: SOC 200 or 201
Analyses of the sociology of substance use and abuse. Provides a sociological framework for understanding issues and evaluating our nation's responses to the phenomenon of drug use. Drawing on sociocultural and social psychological perspectives, this course systematically examines the social structure, social problems, and social policy aspects of drugs in American society. Prerequisite or permission of instructor. (YR).

CRJ 467 Drugs, Crime, and Justice
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: SOC 200 or 201
Provides a comprehensive analysis of the current state of research on interactions between crime and drug abuse. Examines drug distribution, organization of drug systems, and mechanisms of social control of drug systems. Analyzes the social problems associated with drugs and crime. The course also focuses on drug-law enforcement and public policy strategies for dealing with drugs and crime. Prerequisite or permission of instructor. (YR).

CRJ 468 Criminology
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Analysis of criminal behavior in relationship to the institutional framework of society. Emphasis upon the more routinized and persistent forms of criminality along with the joint roles played by victims, the criminal, the police, and all other relevant parties. (F,W)

CRJ 469 Juvenile Delinquency
3.000 Credits
Prerequisites: SOC 200 or 201
The analysis of juvenile delinquent behavior in relationship to the institutional framework of society. Emphasis on the extent, causes, and methods of juvenile delinquency in the United States. (YR)

CRJ 470 Current Issues in Crim Justice
3.000 Credits
Current issues in the field of criminal justice and law enforcement in the U.S. and other countries. Topics include an evaluation of police activities, problems of apprehensions and prosecution, the courts and the correctional system, and the efficacy of the legal structure in its social context. (F,W,S).

CRJ 471 Comp Crim Justice Systems
3.000 Credits
Prerequisites: CRJ 200
Description, analysis, and evaluation of selected criminal justice systems throughout the world. Course focuses on the various systems, theories, structures, methods and functions, including common law systems and socialist law systems. (YR).

CRJ 472 Corrections
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: CRJ 200
Analysis of the legal, social, and political issues affecting contemporary correctional theory and practice. Topics covered include the history of corrections; the nature of existing institutions; the functions and social structure of correctional institutions; and alternatives to institutional incarceration, probation, and parole. (OC).

CRJ 473 Race, Crime and Justice
3.000 Credits
May not be enrolled in one of the following Classes:
  Freshman
Prerequisites: SOC 200 or 201
This course is an analysis of race and its relation to crime in the criminal justice system. Students will analyze and interpret the perceived connection between race and crime, while exploring the dynamics of race, crime, and justice in the United States. This course is designed to familiarize students with current research and theories of racial discrimination within America's criminal justice system.

**CRJ 474 Cyber Crimes**  
3.000 Credits  
Prerequisites: SOC 200

This course in a hands-on approach investigating cybercrimes (e.g., child exploitation, predators, sexual/vice crimes, identity theft, etc.). Students will explore and discuss legal cases involving cyber technology and predatory practices and review applicable evidentiary rules. Students will also analyze the practical and ethical considerations that apply to undercover internet operations, and evidence collection and use to locate and apprehend offenders.

**CRJ 475 Digital Evidence**  
3.000 Credits

This course is a detailed approach to how computers and networks function, how they can be involved in virtually any type of crime, and how they can be used as a source of evidence. Students will analyze relevant legal issues and specific investigative and forensic processes related to technology. This course examines how deductive criminal profiling, a systemic approach to focusing an investigation and understanding criminal motivations, is utilized to locate and apprehend offenders.

**CRJ 476 Inside Out Prison Exchange**  
4.000 Credits  
Must be enrolled in one of the following classes:  
- Senior  
- Junior

This community-based course, taught in a local correctional facility, brings university students and incarcerated students together to study as peers. Together students explore issues of crime and justice, drawing on one another to create a deeper understanding of how these issues affect our lives as individuals and as a society. The course creates a dynamic partnership between UMD and a correctional facility to allow students to question approaches to issues of crime and justice in order to build a safer and more just society for all. The course encourages outside (UMD) students to contextualize and to think deeply about what they have learned about crime and criminals and to help them pursue the work of creating a restorative criminal justice system; it challenges inside students to place their life experiences into larger social contexts and to rekindle their intellectual self-confidence and interest in further education.

**CRJ 477 Criminal Justice Internship**  
3.000 TO 6.000 Credits

Provides field experience in social welfare or criminal justice agencies, e.g., for children/adolescents, in residential programs, in abuse remediation, in probation, for chemical dependencies, in victim advocacy, for the elderly, in prisons, for special needs populations, in court services, in medical/public health, in police services, and for families and communities. Supervision by approved field instructors. An internship of 80 hours is required for three (3) credits. Instructor and student will work together to determine appropriate intern placement. Approval of instructor. (F,W).

**CRJ 479 Women's Studies Internship**  
3.000 Credits  
Prerequisites: WST 275

Provides field experience in social welfare agencies, e.g., for children/adolescents, abuse, chemical dependencies, the elderly, special needs populations, criminal justice/probation, medical/public health, and families and communities. Supervision by approved field instructors. Focus is on analysis of the social context of agency, the clients, and staff. An internship of 80 hours is required for three (3) credits. Prerequisite: WGST 275 and permission of the Women's Studies Director is required. (F, W).

**CRJ 480 Applied Crime Justice Theory**  
3.000 Credits

Criminal Justice theorists study of formal and informal mechanisms of social control in specific places, such as bars and night clubs, city parks, schools and shopping malls. Students in this course will learn to apply their theories to practical, real life situations to achieve behavioral changes among individuals and groups toward the objective of effective crime control.

**CRJ 481 Terrorism & US Natl Security**  
3.000 Credits  
Prerequisites: CRJ 468

The United States responded to the events of September 11, 2001 with a series of unprecedented action under the umbrella of homeland security and the “War on Terror.” This course examines American National security policy by asking a few key questions: What is terrorism and how does it threaten the United States? How has the United States responded to the threat of terrorism over time? What have the consequences of US policy been to date? Finally, how would we balance a desire for security with our desire for civil liberties and ethical action?

**CRJ 482 Legal Ethics**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
- Undergraduate  
- Must be enrolled in one of the following classes:  
  - Senior  
  - Sophomore  
  - Freshman  
  - Junior

This course will explore the many ethical dilemmas faced by professionals in the legal system. We will pay particular attention to the criminal justice system and to the Rules of Professional Conduct for attorneys. Some of the questions we may address are: How should an attorney consider his/her own ethical beliefs when deciding the appropriate course of action in a case? How should a judge consider his/her own ethical beliefs when making a juvenile justice decision? How should a police officer determine the ethical course of action when the law's instructions are ambiguous?

**CRJ 483 Justice, Crime and Environment**  
3.000 Credits  
Must be enrolled in one of the following classes:  
- Senior  
- Junior

This service-learning course focuses on environmental justice and law. Environmental Justice is defined as the fair treatment of all people with respect to the development, implementation, and enforcement of environmental laws. In the classroom, students learn the theory, history, and enforcement of environmental laws and regulations in Detroit, Michigan, and nationwide. In a required civic engagement project, students apply their substantive knowledge to solve local environmental problems. Through classroom learning
and projects with community organizations, students connect law and justice concerns to Detroit's environmental problems.

CRJ 485 Psychology Internship
3 .000 OR 6.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: PSYC 170 or 171

The psychology internship offers experience in a wide variety of placements dealing with human services. These include programs related to child abuse, crisis intervention, geriatrics, human resources/staff development, mental retardation, probation departments, teenage runaways, substance abuse, and women's issues. The program is designed for juniors and seniors with a concentration in psychology or behavioral sciences and involves training in listening and helping skills. Written permission of instructor required. (F,W).

CRJ 489 Law, Crime, and Society
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior

This course will incorporate both legal and empirical perspectives to emphasize the dynamic relationship between law, crime, and society. In this course, we will focus on the substantive and procedural criminal law ('law on the books') while we simultaneously focus on empirical research of enforcement, case processing and sentencing in the criminal justice system (the 'law in action'). As a result, we will assess the relationship and differences between what the criminal law says 'on the books' and the criminal justice system 'in action'.

CRJ 490 Topics in Criminal Justice
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following classes:
Senior
Junior

Examination of problems and issues in selected areas of criminal justice. Title as listed in Schedule of Classes will change according to the content of the course. Course may be repeated when specific topics differ.

CRJ 494 Pol Sci Internship Seminar
3 .000 OR 6.000 Credits

This is the academic part of the internship. Students must meet with other interns once a week to analyze political dynamics within their placements. Students are required to keep journals, prepare papers and reports, and do other written work. Anyone taking POL 495 or 496 is required to take POL 494. It may not be taken by itself. Repeatable if topic differs. Only six hours of internship credit is allowable toward concentration requirement. (F,W,S).

CRJ 495 Political Science Internship
3.000 TO 6.000 Credits

Field study placements in national, state, local government or private agencies. Primarily for junior or senior political science concentrators or other qualified applicants. Maximum of 20 students selected each term. Students must also register for CRJ 494. Only six hours of internship is allowed toward concentration requirement. (F,W,S).

CRJ 497 Washington, D.C. Internship
3.000 TO 6.000 Credits

Field placements in Washington, D.C. Course is offered only in summer semester. Primarily for junior or senior political science concentrators or other qualified applicants. Only six hours of internship credit is allowed toward concentration requirement.

CRJ 498 Directed Studies
1.000 TO 6.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following classes:
Senior
Junior

Directed individual study of any subject agreed upon by the student and the instructor. May not duplicate a formal course offering.

Earth Sciences

The Earth Sciences major is designed to provide students with a strong background in the areas of science that seek to understand Earth and its neighbors in space, including geology, GIS, oceanography, meteorology, and astronomy. The major leads to a BS degree that prepares students for graduate study in any of the earth sciences, for students who wish to qualify for a teaching certificate in Earth Science, or for students interested in the study of geology or astronomy as part of an undergraduate liberal arts education.

PREREQUISITES TO THE MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
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<tbody>
<tr>
<td>BIOL 130</td>
<td>Intro to Organismal and Environ Biology</td>
<td>4 hrs</td>
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<tr>
<td>CHEM 134 or 144 General Chemistry I</td>
<td>4 hrs</td>
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<tr>
<td>CHEM 136 or 146 General Chemistry II</td>
<td>4 hrs</td>
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<tr>
<td>GEOG 203</td>
<td>Weather and Climate</td>
<td>3 hrs</td>
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<tr>
<td>GEOL 118</td>
<td>Physical Geology</td>
<td>4 hrs</td>
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<tr>
<td>GEOL 218</td>
<td>Historical Geology</td>
<td>4 hrs</td>
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<tr>
<td>MATH 113</td>
<td>Calculus I: Management, Life and Social Science</td>
<td>4 hrs</td>
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<tr>
<td>MATH 114</td>
<td>Calculus II: Management, Life and Social Science</td>
<td>4 hrs</td>
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<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>4 hrs</td>
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<tr>
<td>MATH 116</td>
<td>Calculus II</td>
<td>4 hrs</td>
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<tr>
<td>PHYS 125</td>
<td>Introductory Physics I</td>
<td>4 hrs</td>
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<tr>
<td>PHYS 126</td>
<td>Introductory Physics II</td>
<td>4 hrs</td>
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<tr>
<td>PHYS 150</td>
<td>General Physics I</td>
<td>4 hrs</td>
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<tr>
<td>PHYS 151</td>
<td>General Physics II</td>
<td>4 hrs</td>
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<tr>
<td>ASTR 130</td>
<td>Introduction to Astronomy</td>
<td>3 hrs</td>
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<tr>
<td>ASTR 131</td>
<td>Introductory Astronomy Laboratory</td>
<td>1 hrs</td>
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</tbody>
</table>
MAJOR REQUIREMENTS .............................................. 31 hrs

Required Core .................................................. minimum of 12 hrs
CHEM 344 Quantitative Analysis ......................... 4 hrs
GEOL 342 Oceanography ...................................... 3 hrs
GEOL 350 Geomorphology ................................... 4 hrs
GEOL 377 Field Methods in Geology* .................... 1 hr
OR
GEOL 578 Geology of the National Parks ............... 3 hrs

*Note: may be repeated

Research/Internship* ............................................. 3 hrs
GEOL 498 Readings in Earth Science ...................... 3 hrs
OR
GEOL 499 Laboratory and Field Research ............... 3 hrs
OR
ENST 398 Environmental Internship ...................... 1 hr
AND
ENST 485 Seminar in Environmental Topics ............. 2 hrs

*The research or internship must culminate in an oral or poster presentation.

Electives in Earth Science – A minimum of 14 or 16 credit hours upper level, whichever is needed, to reach a total of 31 credit hours for the major (14 hrs. if GEOL 578 is taken in the core, 16 hrs. if GEOL 377 is taken) from the following:

CHEM 325 Principles of Organic Chemistry .......... 3 hrs
ESCI 330 Land Use Planning and Management ....... 4 hrs
ESCI 390 Topics in Environmental Science .......... 3-4 hrs
GEOG 300+ level, any courses that have not been used elsewhere in the major
GEOL 300+ level, any courses that have not been used elsewhere in the major
PHYS 390 Current Topics in Physics ................. 3 hrs
PHYS 421 Astrophysics ...................................... 3 hrs
PHYS 490 Topics in Physics .............................. 3-4 hrs

Graduate-level (500/600 level) courses in Geology can be taken for upper-level credit to satisfy major requirements.

NOTES:
1. At least 12 of the 31 upper level hours in the major must be elected at UM-D.
2. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

Economics

Economics is a social science that studies the ways a society can best use its resources. Thus, a sound knowledge of economics has become increasingly important for understanding the contemporary world and its problems. Economics helps one think critically about a diverse array of problems ranging from domestic and international public policy issues to personal choices about careers, spending, and investments. The Economics major also offers useful training for those interested in pursuing a business career, and provides excellent preparation for post-graduate work in Economics, Law, Business, and other professional fields. To meet the needs of those desiring a comprehensive introduction to economic principles and problems, ECON 201 and 202 are offered each term. For majors in economics a well-balanced offering of courses is designed to equip the student with an understanding of basic economic relationships, the essential tools of economic analysis, and a store of factual knowledge.

PREREQUISITES TO THE MAJOR

ECON 201 Principles of Macroeconomics .......... 3 hrs
ECON 202 Principles of Microeconomics .......... 3 hrs
MATH 104 Pre-calculus for Management, Life and Social Science* ................................................. 4 hrs
OR
MATH 105 Pre-calculus* ....................................... 4 hrs
*MATH 113 or 115 can be substituted but cannot also be used in the Cognate area.

MAJOR REQUIREMENTS

Required courses* ............................................... 9 hrs
ECON 301 Intermediate Macroeconomics** ........ 3 hrs
ECON 302 Intermediate Microeconomics** ......... 3 hrs
ECON 305 Economic Statistics* ......................... 3 hrs

(required only of the above three courses may be transferred to UM-D).

*Note: MATH 104, 105, 113, 115, or equivalent are prerequisites to these courses.

** Note: ECON 301 and 302 should be taken no later than the junior year.

Five additional courses ........................................... 15 hrs
(excluding ECON 499). Only 3 credits of economics internship, ECON 398, can be applied to the major requirement. At least one of these five additional courses must be a 4000 level capstone course.

Note: Those considering graduate study in economics are advised to take one year of calculus (MATH 113 & 114 or MATH 115 & 116), MATH 217 Introduction to Matrix Algebra, ECON 4015 Introduction to Econometrics and ECON 4065 History of Economic Theory.

Cognates ............................................................... 6 hrs
Students must complete at least six hours in cognate courses selected from the following list: ACC 298, 299; ITM 120, 310 and 311; MATH 113 or 115; MATH 114 or 116; CCM/CIS/IMSE 150, 200; PHIL 234 or 350, 485; any 300/400-3000/4000-level courses (excluding internships and independent studies) in anthropology, geography, history, political science, sociology, urban and regional studies.

NOTES:
1. At least 15 of the 24 upper level hours of Economics must be elected at UM-D.
2. A maximum of 3 hrs. of internship (ECON 398) may count in the 24 hrs. of requirements for the major.

Economics majors may want to consider the new program called an Accelerated Master in Public Policy –Economic Policy Specialization (AMPP-EPS). This program enables a student to obtain a Bachelor’s degree in economics and a Master’s degree in Public Policy with an Economic Specialization within five years. The key to the program’s “accelerated” aspect is that the five upper level Economics electives must be taken at the graduate level – even though the student is still an undergraduate. These five courses will count towards both the undergraduate and graduate degrees. Admission requirements to the AMPP-EPS program include having completed at least 60 credit hours with a 3.25 GPA, completion of two of the three core economic theory courses (ECON 301, 302, 305) with grades of “B” or better. For more information see any Economics professor; application forms may be obtained from Professor Natalia Czap, 2300 SSB, nczap@umich.edu.
MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level (300/3000- and 400/4000-level courses) credit in Economics.

ECONOMICS HONORS DESIGNATION

To be recognized as graduating with honors in economics, students must (1) complete all the requirements for the economics major at UM-Dearborn; (2) earn a B+ or higher in each of at least two capstone 4000-level economics courses; (3) complete an Honors research paper as part of a 3 credit hour Directed Research (ECON 499); and (4) graduate with an overall 3.25 GPA at UM-Dearborn and a 3.5 GPA in upper division economics courses.

Students are expected to apply for candidate status for the Honors Award during or before the first term of their senior year at UM-Dearborn. Requirements for candidate status include being an Economics major, having a cumulative 3.25 GPA at UM-Dearborn, having successfully completed at least one core theory course (ECON 301/302/305), and possessing a 3.5 GPA average in upper division Economic classes.

Economics (ECON)

COURSE OFFERINGS

ECON 100 Personal Economics & Finance 3.000 Credits

Students in ECON 100 will acquire the knowledge and tools needed to survive and thrive in the economic realities of the 21st century. Students will become familiar with the Michigan and U.S. economies, and will learn how to apply basic economic concepts to common personal choices, for example how to finance their education. They will also learn how to use economic concepts to critically evaluate economic information presented to them by others. Students who have already taken ECON 201, ECON 201, or ECON 202 cannot receive credit for ECON 100.

ECON 201 Prin: Macroeconomics 3.000 Credits

Introduction to economic reasoning, basic economic concepts and theories used in microeconomics and macroeconomics. Economic techniques including graphing and marginal analysis will also be introduced and applied to practical problems in everyday life. In addition, this course will focus on the way economic concepts can be taught at the elementary and high school level in a way that integrates economics into a broader understanding of Michigan history, government and geography. (F).

ECON 202 Prin: Microeconomics 3.000 Credits

Together with ECON 201, this course serves to introduce the student to the basic ideas and concepts of modern economic analysis, and applies them to current economic problems, policies, and issues. The focus of this course is on microeconomics, the behavior of consumers and firms and their interactions in specific markets. It is recommended that students take ECON 201 before ECON 202. MATH 104 or 105 is highly recommended but not required. (F,W,S).

ECON 290 Topics in Economics 3.000 Credits

Examination of problems and issues in selected areas of economics. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

ECON 301 Intermediate Macroeconomics 3.000 Credits

Prerequisites: ECON 201 and ECON 202 and (MATH 104 or MATH 105 or MPLS 113)

A systematic study of the determinants of national output, economic growth, inflation, and unemployment. The effects of monetary policy, fiscal policy and other economic factors are analyzed for both the long run and short run. Debates about various approaches to macroeconomics policy are also discussed. (F,W).

ECON 302 Intermediate Microeconomics 3.000 Credits

Prerequisites: ECON 201 and ECON 202 and (MATH 104 or MATH 105 or MPLS 113)

A systematic study of the role of prices in organizing economic activity. The tools necessary for such study will be developed and applied to the analysis of the household, the firm, and the market under varying degrees of competition and monopoly. (F,W).

ECON 305 Economic Statistics 3.000 Credits

Prerequisites: ECON 201 and ECON 202 and (MATH 104 or MATH 105 or MPLS 113)

Introduction to the logic and use of statistical analysis, with emphasis on statistical inference. Topics covered include descriptive statistics, probability, estimation, hypothesis testing, and the use of linear regression analysis to study relationships between two variables. (F,W).

ECON 311 Money and Banking 3.000 Credits

Prerequisites: ECON 201 and ECON 202

The structure, workings, and regulation of financial systems, concentrating on bank-like financial institutions. While financial instruments like stocks, bonds, and some derivatives are discussed, the focus is on the economic theory behind financial markets. That is, the study of monetary policy underscores the interaction between the financial system and the economy. (F,W).

ECON 321 Labor in the American Economy 3.000 Credits

Prerequisites: ECON 201 and ECON 202

An analysis of the nature and underlying causes of the problems facing the worker in modern economic society. Includes an examination of wages, unemployment, economic insecurity, the trade union movement, collective bargaining, and labor legislation. (F,W).
ECON 325  Economics of Pov and Discrm  
3.000 Credits  
Prerequisites: ECON 201 and ECON 202  
An analysis of the economic aspects of poverty and discrimination. Emphasis on the theoretical economic causes of poverty and the economic bases for discriminatory behavior, the impact of poverty and discrimination on individuals and society, and the effect of reform policies on the two problems. (AY).

ECON 331  Industrial Organization  
3.000 Credits  
Prerequisites: ECON 202  
Theory and empirical evidence on the causes and effects of market power, especially in industrial markets. The focus is on the relationships between market structure and performance, and policy formation. (YR).

ECON 335  Experimental Economics  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: ECON 202 or ECON 2001  
This course on experimental economics is devoted to laboratory experiments on individual behavior in markets as well as in social situations. It focuses on different forms of strategic interactions between agents, including competition, coordination, bargaining, and public choice. We will consider individual decision experiments, choice anomalies, and the role of information in learning and signaling. We will also discuss the design of various economic experiments, such as market bargaining, auctions, trust, gift giving, adverse selection, public goods, common pool resources, etc. Students are recommended (but not required) to take Econ 302 before enrolling in this class. Basic knowledge of Excel is required for this class.

ECON 336  Behavior Econ & Econ Psych  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: ECON 202 or ECON 2001  
This class is a reading intensive course on behavioral economics and its sister discipline of economic psychology. We will discuss whether market forces, learning, and evolution can eliminate human limitations and lead to rational (or at least to bounded rational) behavior. We will examine anomalies, or the ways in which people deviate from the standard economics models. Finally we will explore how behavioral concepts can be incorporated into standard economic models and applied to a particular field. Students are recommended (but not required) to take Econ 302 before enrolling in this class.

ECON 351  Environmental Economics  
3.000 Credits  
Prerequisites: ECON 202  
Course examines the economic aspects of pollution problems. Topics covered in this course include the economic theory of externalities, the theory of public goods, and the optimum use of depletable natural resources. The role of cost-benefit analysis as a part of the decision-making process is also examined. (AY).

ECON 355  Econ of the Medical Sector  
3.000 Credits  
Prerequisites: ECON 202  
Course examines the health of a population and the health care industry, using the tools of economic analysis. Topics include the demand and supply of health services, alternate ways of financing health care, the application of cost-benefit analysis to health projects, and comparative health economic systems (e.g., Britain, Sweden). (AY).

ECON 361  U S Economic History  
3.000 Credits  
Prerequisites: ECON 201 and ECON 202  
A survey of the processes of development of the United States economy, their social implications, and the sources of today's economic problems. (YR).

ECON 362  Eur and Intl Economic Hist  
3.000 Credits  
Prerequisites: ECON 201 and ECON 202  
A survey of the processes of industrialization in the major non-American industrial economies, with a focus on their relevance and implications. (AY).

ECON 372  Economic Demography  
3.000 Credits  
Prerequisites: ECON 201 and ECON 202  
Course offers an introduction to economic demography, focusing on the interrelation between economic and population variables, and the techniques of demographic analysis. (OC).

ECON 375  Heterodox Economics  
3.000 Credits  
Prerequisites: ECON 201 or ECON 202 or ECON 2001  
This course introduces students to alternative perspectives on economic theory and method. These alternatives include: Marxian and radical political economics, institutional and evolutionary economics, behavioral economics, post-Keynesian economics and feminist economics. (OC).

ECON 385  Public Choice  
3.000 Credits  
Prerequisites: ECON 201 and ECON 202  
Public policy decision making, particularly governmental decisions regarding economic policies. Emphasis is on the use of economic methodology to analyze resource allocation via the political system rather than through private markets. (OC).

ECON 390  Topics in Economics  
1.000 TO 3.000 Credits  
Examination of problems and issues in selected areas of economics. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

ECON 398  Economics Internship  
3.000 TO  6.000 Credits  
This internship affords the student the opportunity to apply tools learned in economics courses to real-world work situations. The student has 8-16 hours of unpaid work per week under the guidance of a faculty advisor and complementary academic work supervised by an economics professor. Only three credit hours may be applied to meeting the concentration requirements.
in economics; up to six credit hours may be applied toward graduation credit. The internship is offered only on the S/E grading basis. Students cannot receive credit for both ECON398 and ECON498.(F,W,S). 3.000 TO 6.000 Credit hours

**ECON 4011 Monetary Economics**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 311 and ECON 301

This course examines financial institutions in a macroeconomic theoretical context. A rigorous treatment of monetary theory is presented followed by practical discussion of U.S. monetary policy as implemented by the Federal Reserve System. Students cannot receive credit for both ECON 4011 and ECON 411.

**ECON 4015 Introduction to Econometrics**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: MATH 113 or MATH 115 and ECON 305

The theory and practice of the statistical analysis of economic relationships. Topics covered include the construction and estimation of econometric models and tests of economic theories, emphasizing the use of multiple linear regression. Students cannot receive credit for both ECON 4015 and ECON 415.

**ECON 4021 Economics of the Labor Sector**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 302

Theoretical analysis and empirical studies of the nature and operation of labor markets. Includes theories of wage determination and income distribution, the nature of unemployment, the impact of collective bargaining on the economy, the extent and economic effects of discrimination, and the nature and effects of government wage and employment policies. ECON 321, Labor in the American Economy, is valuable background to this course although it is not a prerequisite. This course counts as a required capstone (4000-level) course in Economics and also counts toward the Economics Honors designation. Students cannot receive credit for both ECON 421 and ECON4021.

**ECON 4065 History of Economic Thought**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 302

Course examines the evolution of economic thought and theory from the early origins to the present, focusing on the major contributions to economics, especially from Adam Smith onward, and assesses the current condition of economic analysis. Students cannot receive credit for both ECON 465 and ECON 4065.

**ECON 407 Cost-Benefit Analysis**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: ECON 202 and ECON 302

Cost-benefit analysis arguably is the most important tool in evaluating public and private policies. Conceptually, cost-benefit analysis is simple: subtract the costs from the benefits and adopt those policies yielding the greatest net benefit. In practice cost-benefit analysis is much more complicated. Costs and benefits must be summed over time, requiring a calculation of net present value. Costs and benefits must be summed over different people, requiring a social welfare function. Finally, costs and benefits must be summed over a variety of goods and services, some of which do not have market values or where market values are not appropriate measures. This course reviews the techniques involved in cost-benefit analysis and employs case studies to illustrate these techniques. (AY)

**ECON 4085 Public Finance**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 302

Analysis of the role of government in the economy. Course examines theories of the need for and nature of government intervention in economic activities. Includes analysis of public goods, externalities, taxation, state, and local finance, and models of public decision making. Students cannot receive credit for both ECON 4085 and ECON 481.

**ECON 433 Antitrust and Regulation**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 202

This course uses economic theory to examine major antitrust laws and to evaluate government regulation of industry. ECON 331, Industrial Organization, is valuable background to this course although it is not a prerequisite. Students cannot receive credit for both ECON 333 and ECON 333. (OC).

**ECON 442 Economic Development**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 201 and ECON 202

A survey of economic problems currently affecting third world countries and the various policy options available to them. Topics covered will include agrarian vs. industrial growth, and monetary and fiscal policies, planning problems, foreign exchange and debt problems. Students cannot receive credit for both ECON 442 and ECON 342 (OC).

**ECON 444 Economies of the Middle East**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 201 or ECON 202

Survey of socio-economic issues of the post-WWII Middle East, using textbooks and web-based readings. Topics include population growth, urbanization, migration, gender issues, land reform, privatization, and stabilization policies. The Arab-Israeli conflict is not a focus of study. Grade based on papers and exams. Students cannot receive credit for both ECON 344 and ECON 444.
ECON 447  International Finance  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 201

This course studies the large-scale economic issues in interdependent economies, such as the behavior of exchange rates, interest rates, income, wealth, prices, and the balance of payments. International finance focuses particularly on economic policies in a world with a multitude of currencies and increasingly integrated goods, financial, and capital markets. Students cannot receive credit for both ECON 447 and ECON 347.

ECON 448  International Trade  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 201 and ECON 202

Course analyzes in depth the debate of free trade vs. protectionism. Different theoretical models of the "gains from trade" are presented, as well as studies of their empirical validity. Some historical perspective is included, as well as discussion of the current situation of the European Union. Students cannot receive credit for both Econ 348 and Econ 448.

ECON 482  Regional Economics  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: ECON 201 or ECON 202 or ECON 2001

Course explores methods of economics evaluation of regions in terms of intra- and inter-regional activity. Regions may smaller than a nation, be a collection of nations, or be composed of portions of more than one nation. Theoretical topics include the theories of (1) the location of the firm, (2) spatial demand, (3) agglomeration economies, and (4) input-output analysis. Regional development policy is discussed using Michigan and Ontario as subjects. Students cannot receive credit for both ECON382 and ECON482.

ECON 483  Urban Economics  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: (ECON 201 and ECON 202) or ECON 2001

The economics of the city and the introduction of space in economic analysis; the determination of land use patterns, the location of firms and industries, and an urban area's growth; economic analysis and policy issues concerning urban poverty, housing, transportation, the local public sector, and other urban problems. Students cannot receive credit for both ECON 483 and ECON 381.

ECON 497  Economics Seminar  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate

An advanced study in selected areas of Economics. Topics vary; see the current Schedule of Classes for topics and prerequisites. May be offered in satisfaction of 400-level elective requirement for concentration. (OC).

ECON 499  Directed Research  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate

Independent study under the direction of a faculty supervisor in advanced topic areas. Normally must be elected on the "pass/fail" option, in which case it does not count toward credit hour requirement for concentration. Special consideration for the A through E grading option must be approved by members of the Economics discipline. In all cases students must have faculty supervisor's permission to register.

English

A major in English at UM-Dearborn focuses on the dynamic intersection of language, literature and society as well as the identities and communities shaped by this intersection. Majors in the English discipline have the opportunity to explore the relationships between reading and writing printed text by becoming familiar with the strategies that writers use to shape conceptions of truth.

The primary goal of the English discipline is to help students develop a sensitivity to the ways spoken and printed language frame how we conceive and discuss our identities throughout history. The UM-Dearborn English Faculty is committed to this goal by offering rigorous, comprehensive courses that contextualize language in terms of the various traditions and genres of English and American literature, the history of the English language and the critical skills necessary to craft effective expository and creative writing.

Acknowledging the unique perspective provided by studying English language and literature in a part of urban America that offers vibrant multi-cultural experiences, the UM-Dearborn English major also exposes students to the future of English language and literature in the context of a global community both in — and beyond — Detroit. Therefore, majors in the English discipline may expect to develop a close relationship to the social ramifications of the written word and its potential for incorporating both communities and individuals into a larger, more internationally aware reading and listening audience.

PREREQUISITES TO THE MAJOR

Students are required to complete the following as a prerequisite:

ENGL 200  Introduction to English Studies

This course serves as the “gateway” to the major with enrollment limited to 20 students per section. ENGL 200 exposes students to the terms of English Studies, literary criticism and literary theory, knowledge essential to higher-level English courses.

Virtually all 300/3000 and 400/4000-level English courses require as prerequisites ENGL 200 and COMP 106 or equivalent. In addition, other prerequisites for a specific upper-level English course may be introduced by the instructor in the term in which the course is offered. Students are advised to consult the current Schedule of Classes for prerequisites each term. If a student has not satisfied the prerequisites of a course, the student may be enrolled by permission of the instructor, provided that there are other relevant qualifications.

COLLEGE OF ARTS, SCIENCES AND LETTERS  131
MAJOR REQUIREMENTS

All students majoring in English must complete 30 hours of course work on the 300/3000- and 400/4000-levels. Four of these courses are required upper-level surveys:

- ENGL 311 Survey of British Literature, Beowulf to Milton
- ENGL 312 Survey of British Literature, Milton to 1900
- ENGL 313 Survey of American Literature, Colonial Period to 1900
- ENGL 314 Survey of Literature in English, 1900 to Present

Students are encouraged to take these surveys early in their careers so that they acquire an overview of literary history before taking more specialized upper-level courses. Students are required to take all four, but they can be taken at any time after ENGL 200 and are not prerequisites for other courses. Also, please note that students who have completed ENGL 235, 236 and/or 237 in the previous curriculum may petition to transfer these credits to cover ENGL 311, 312 and/or 313 in the current curriculum.

In addition to taking the four required survey courses listed above, students are required to complete at least six upper-level electives. Students may wish to group some of these electives in the tracks listed below. Please note that students are not required to select a track for these remaining courses. However, if they wish, student may designate a “track” by taking three of their six electives in one of the four following tracks:

- British Literature and Culture
- American Literature and Culture
- Writing
- World English Language and Literature (WELL)

English majors, whether they elect a track or not, must also fulfill the following requirements:

The English Discipline’s “Diversity Requirement”: English majors must elect one course with substantial inclusion of literature in English that expands the traditional Anglo-American literary curriculum. This literature may represent various national groups, ethnic groups, genders, and subcultures. The following courses satisfy the English “Diversity Requirement”: ENGL 239, 300, 389, 443, 445, 469, 471, 4705, or other options that may be available on a semester by semester basis. Courses that satisfy the English Diversity Requirement will be noted in the Schedule of Classes for any particular semester.


The “Research Requirement”: English majors must elect one course designated “Research Intensive,” from the following list: ENGL 400, 401, 404, 405, 406, 408, 409, 410, 412, 413, 420, 423, 424, 434, 440, 443, 450, 453, 455, 456; or an “Independent Studies in English” (ENGL 399)

Cognates ................................................................. 6 hrs

English majors must also complete at least six hours of cognate courses which are to be selected from upper-level offerings in art history, comparative literature, communication, history, humanities (excluding HUM 485), journalism and screen studies, linguistics, music history or philosophy. Other courses that can be shown to be specifically complementary to the study of literature are sometimes approved by petition as cognates.

Cross listed comparative literatute, communication, journalism and screen studies, linguistics, and humanities courses may be elected either for major or for cognate credit, but not for both.

NOTES:

1. A maximum of 54 hrs. in ENGL may count in the 120 hrs. required for graduation.
2. At least 15 of the 30 upper level hrs. in English must be elected at UM-D.
3. All English majors must complete an English Diversity requirement course, a English Historical requirement course, and a English Research Intensive/Independent Study course. Upper level courses used to fulfill the above requirements may also be counted in the 18 hrs. required in English Electives for the major.

SECONDARY CERTIFICATION SUPPLEMENT

One of the following supplements is required for students seeking certification for high school teaching in English. A major consists of 30 hours, including one upper-level writing course (ENGL 323 or 327) and two linguistics courses (ENGL/LING 280 or 281 and 461). The balance of the thirty hours for the major must be selected with the approval of the degree and certification advisors in accordance with the English major and certification requirements.

A minor in English for certification consists of 20 hours, including the same required courses in writing and linguistics, with the balance to be selected with the approval of degree and certification advisors.

Both the major and the minor have as a supplementary requirement, not included in the 30 or 20 hours, LIBR 470 Literature for Young People.

CASL MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in English.

English majors may find a minor in business administration, computer sciences, foreign languages, women and gender studies, humanities, art or music history a valuable supplement to the major. Students should consult with an academic advisor before deciding to pursue a minor.

HUMANITIES INTERNSHIP PROGRAM

The Humanities Internship Program offers practical experience to students concentrating in English and other humanistic fields and those interested in journalism. Students gain and demonstrate skills desired by employers, make important contacts, and explore a field of work before graduation. For more information on the Humanities Internship, see the Internship Coordinator, 3028 CB, (313) 593-5136, or inquire at the Literature, Philosophy, and The Arts Department office in 3011 CB, (313) 593-5433.

INDEPENDENT STUDY

Independent Study (ENGL 399) provides an opportunity for students to extend the work of existing courses or to explore areas not included in the current course offerings. Consult the Literature, Philosophy, and the Arts Department Guidelines for Independent Study, available in the Department Office, 3011 CB, (313) 593-5433. To enroll in an independent research project, students must have a prior, written contract with the instructor and prior, written permission of the Department Chair. One to three credit hours available.
ELECTIVE “TRACKS” IN THE ENGLISH CURRICULUM

Students may choose to elect a “track” by taking at least 3 of their upper-level courses from one of the following four areas:

- British Literature and Culture
- American Literature and Culture
- Writing
- World English Language and Literature (WELL)

ELECTING A TRACK IS OPTIONAL, but tracks give students the ability to focus their electives if they so desire. The courses for the four tracks are as follows. The following list is subject to change. Consult the current Schedule of Classes or contact the English Discipline representative for future additions to the tracks, including Topics courses offered on a semester basis.

**British Literature and Culture Track**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 346</td>
<td>Bible and Western Tradition</td>
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<tr>
<td>ENGL 356</td>
<td>Reading Urban Monstrosity: London</td>
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<tr>
<td>ENGL 368</td>
<td>Twentieth- and Twenty-First Century British/American Poetry</td>
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<tr>
<td>ENGL 371</td>
<td>British Literature: Beginning to 1500</td>
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<td>ENGL 372</td>
<td>British Literature: 1500-1600</td>
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<td>ENGL 373</td>
<td>British Literature: 1600-1660</td>
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<td>ENGL 374</td>
<td>Restoration and Early Eighteenth-Century British Literature</td>
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<td>ENGL 375</td>
<td>The Age of Johnson and Burney</td>
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<tr>
<td>ENGL 376</td>
<td>British Literature in the Romantic Era</td>
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<tr>
<td>ENGL 377</td>
<td>Victorian Poetry and Prose</td>
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<tr>
<td>ENGL 400</td>
<td>Major English Authors of the Middle Ages</td>
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<td>ENGL 401</td>
<td>Literature of Anglo-Saxon England</td>
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<td>ENGL 404</td>
<td>Medieval Mystical Writers</td>
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<td>ENGL 405</td>
<td>Chaucer</td>
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<td>ENGL 406</td>
<td>Studies in Medieval Literature and Culture</td>
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<tr>
<td>ENGL 408</td>
<td>Shakespeare I: Earlier Works</td>
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<td>ENGL 409</td>
<td>Shakespeare II: Later Works</td>
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<td>ENGL 410</td>
<td>Major English Authors of the Renaissance</td>
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<td>ENGL 412</td>
<td>Milton</td>
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<td>ENGL 413</td>
<td>English Renaissance Drama (Excluding Shakespeare)</td>
</tr>
<tr>
<td>ENGL 414</td>
<td>Seventeenth-Century Readings</td>
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<tr>
<td>ENGL 420</td>
<td>Major English Eighteenth-Century Authors</td>
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<tr>
<td>ENGL 423</td>
<td>Restoration Drama</td>
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<td>ENGL 424</td>
<td>The Eighteenth-Century English Novel</td>
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<td>ENGL 430</td>
<td>Studies in Nineteenth-Century British Literature</td>
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<tr>
<td>ENGL 431</td>
<td>British Romantic Writers</td>
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<tr>
<td>ENGL 432</td>
<td>Victorian Writers</td>
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<tr>
<td>ENGL 434</td>
<td>The Victorian Novel</td>
</tr>
<tr>
<td>ENGL 440</td>
<td>Major English and American Authors of the Twentieth and Twenty-First Centuries</td>
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<tr>
<td>ENGL 441</td>
<td>Major English Authors of the Twentieth and Twenty-First Centuries</td>
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<tr>
<td>ENGL 443</td>
<td>Anglo-Irish Literature</td>
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<tr>
<td>ENGL 482</td>
<td>History of the English Language</td>
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**Writing Track**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 310</td>
<td>Narrative Journalism</td>
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<tr>
<td>ENGL 317</td>
<td>Studies in Technical Writing</td>
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<tr>
<td>ENGL 323</td>
<td>Advanced Creative Writing</td>
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<tr>
<td>ENGL 327</td>
<td>Advanced Exposition</td>
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<tr>
<td>ENGL 330</td>
<td>Feature Writing</td>
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<tr>
<td>ENGL 331</td>
<td>Online Reporting, Research, Writing</td>
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<tr>
<td>ENGL 364</td>
<td>Writing for Civic Literacy</td>
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<td>ENGL 436</td>
<td>Memoir and Travel Writing</td>
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<td>ENGL 454</td>
<td>Postmodern Literature</td>
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<tr>
<td>ENGL 464</td>
<td>Contemporary Rhetorical Theory</td>
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<td>ENGL 465</td>
<td>Discourse Analysis</td>
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<td>ENGL 467</td>
<td>Script-Writing Workshop</td>
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<tr>
<td>ENGL 468</td>
<td>Writing Young Adult Fiction</td>
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<tr>
<td>ENGL 485</td>
<td>Theories of Writing</td>
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**World English Language and Literature (WELL Track)**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 381</td>
<td>Introduction to Postcolonial Studies</td>
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<tr>
<td>ENGL 389</td>
<td>Odyssey of Black Men in America</td>
</tr>
<tr>
<td>ENGL 469</td>
<td>Twentieth-Century African-American Literature</td>
</tr>
<tr>
<td>ENGL 4705</td>
<td>Voices of Black Women in Literature, Film, Music</td>
</tr>
<tr>
<td>ENGL 473</td>
<td>Arab American Women Writers</td>
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<tr>
<td>ENGL 477</td>
<td>African-American English</td>
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<tr>
<td>ENGL 482</td>
<td>History of the English Language</td>
</tr>
<tr>
<td>ENGL 484</td>
<td>World Englishes</td>
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</tbody>
</table>

Some courses will fit in a track or tracks depending on their content for a given semester. These include:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL 341</td>
<td>Religion and Literature</td>
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<tr>
<td>ENGL 349</td>
<td>Bible in/as Literature</td>
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<tr>
<td>ENGL 370</td>
<td>Narratives of Film and Literature</td>
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<td>ENGL 386</td>
<td>Gender Issues in Literature</td>
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<td>ENGL 390</td>
<td>Topics in English</td>
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<tr>
<td>ENGL 421</td>
<td>Swingers, Flirts, and Libertines</td>
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<td>ENGL 422</td>
<td>Satire</td>
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<tr>
<td>ENGL 442</td>
<td>Studies in Twentieth- and Twenty-First Century Literature</td>
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<tr>
<td>ENGL 444</td>
<td>Seminar in Twentieth- and Twenty First Century Poetry</td>
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<tr>
<td>ENGL 445</td>
<td>Twentieth/Twenty-first Century Women Authors</td>
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</tbody>
</table>
ENGL 454  Postmodern Literature
ENGL 486  Queer Theory and Literature
ENGL 487  Monsters, Women, and the Gothic
ENGL 488  Environmental Literature and Representations of Nature

Some courses will not be placed in any track. These include:

ENGL 301  Literary Criticism
ENGL 342  Myth and Motif
ENGL 343  Adaptations of Literary Texts
ENGL 345  Modern Literature: Drama
ENGL 347  Classical Literature in English Translation
ENGL 394  Psychology and Theater
ENGL 461  Modern English Grammar

English (ENGL) 
COURSE OFFERINGS

ENGL 200  Intro to English Studies
3.000 Credits
Prerequisites: COMP 105 or COMP 110 or CPAS 30

An introduction to English Studies for English concentrators. The course provides students with the interpretive, analytical and basic research skills, the critical vocabulary, the understanding of genre, and the knowledge of major critical approaches necessary for the study of literature. Readings will consist primarily of poetry, fiction, drama, and non-fiction prose written in English by British and American authors, but the course will also include other historical and cultural texts as well as works of criticism. Students will submit at least 20 pages of written work for extensive instructor feedback. (F,W)

ENGL 223  Intro to Creative Writing
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40

An introduction to the writing of poetry, the short story, and/or the play. Considerable writing, analysis, criticism, and discussion. (F,W).

ENGL 230  Introduction to Literature
3.000 Credits

Introduces students to imaginative literature in several genres, including, for example, fiction, poetry, and drama. Stress will be both on appreciation of the aesthetic and cultural value of reading literature and on understanding the process of reading sensitively and intelligently.

ENGL 231  Intro to Literature: Poetry
3.000 Credits

A disciplined introduction to the reading of poetry, English and American. (F,W).

ENGL 232  Intro to Literature: Fiction
3.000 Credits

A disciplined introduction to the reading of short stories and novels, English and American. (F,W).

ENGL 233  Intro to Literature: Drama
3.000 Credits

A disciplined introduction to the reading of plays, English and American. (F,W).

ENGL 235  Engl Lit, Beginnings to 1660
3.000 Credits

A study of the literature of English from the Anglo-Saxon era to 1660, including Chaucer and Milton, designed to introduce students to important authors, works, and literary movements in their historical contexts. Also designed to introduce students to the various ways of writing about literature. Although ENGL 235 is continued in ENGL 236, either course may be elected by itself.

ENGL 236  Engl Lit, 1660 to the Present
3.000 Credits
Prerequisites: COMP 105 or CPAS 30 or COMP 110

A study of the literary history of England from the Restoration to the 20th century, designed to introduce students to important authors, works and literary movements in their historical context. Also designed to introduce students to various ways of writing about literature. Although ENGL 236 is a continuation of ENGL 235, either course may be elected by itself.

ENGL 237  Survey of Amer Literature
3.000 Credits
Prerequisites: COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270

A survey of American literature from the Colonial period to the early 20th century, designed to expose students to major American authors, works, and literary movements. Topics covered include Puritanism, the literature of the American Revolution, American Romanticism, Transcendentalism, the 19th-century poetic tradition, Realism and Naturalism, early 20th-century poetry and prose, and 20th-century social fiction. Also designed to introduce students to various ways of writing about literature.

ENGL 238  Intro to Lit: Arab American
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40

This course in an introduction to Arab American literature, its historical and cultural contexts and contemporary relevance. Topics will include the literary and cultural productions of Arab immigrants, their transnational vision, and explorations of such concepts as home, memory and identity; the literary, dramatic and poetic responses of Arab American writers to 9/11 and the ongoing the war on terror; the role Arab American literature in offering different versions of Arab and Arab American lives and experiences from the one circulated in mainstream media, Hollywood cinema and culture.

ENGL 239  Intro to Lit: African American
3.000 Credits

A study of African-American literature designed to expose students to important periods, works, and authors within historical context. Topics will include slavery, reconstruction, the Great Migration, the Harlem Renaissance, and the contemporary renaissance in Black women's literature. Students will be required to read, critically discuss, analyze, and write their responses to several literary genres that will be incorporated (fiction, drama, poetry).

ENGL 248  Introduction to Screen Studies
3.000 Credits

This course will introduce students to the development of world cinema by integrating the aesthetics of film with its technology, and its social and economic milieu. It will train the students in analyzing the formalist qualities of the medium, and in understanding the evolution of its various genres and styles. (YR).
ENGL 301  Literary Criticism
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

This course introduces literary criticism and theory from
Aristotle to the present, focusing on the changing concept of
literature's nature and function. Lectures, readings, and
discussion cover such critics as Aristotle, Dryden, Pope,
Johnson, Wordsworth, Coleridge, Arnold, T.E. Hulme, I.A.
Richards, T.S. Eliot, and such movements as New Criticism,
Phenomenology, Reader-Response, Archetypal Criticism,
Structuralist-Semiotic Criticism, Psychological approaches to
literature, New Historicism, Marxism, Feminism, and
Deconstruction.

ENGL 304  Studies in Detroit Culture
3.000 Credits
This course is an attempt to define a modern cultural history of
Detroit. Taught by two faculty members, the emphasis of the
course will vary but the following aspects of the city's cultural
history will be covered in some detail: its literature, arts, music,
and architecture; its social conditions and broader American
culture context. (AY).

ENGL 306  Comparat. American Identities
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270

This course will confront and complicate the following key
questions: what does it mean to be an American? What is
American culture? Participants in this course will respond to the
questions central to the American Studies field by reading and
discussing historical, sociological, literary, artistic, material
culture, political, economic, and other sources. Students will use
this interdisciplinary study to examine the multiple identities of
Americans - as determined by factors such as gender, race, class,
ethnicity and religion. While emphasizing the diversity of
American culture, participants will consider some core values
and ideas uniting America both in historical and contemporary
society. Students will be invited to seek out and share fresh
narratives of the American experience.

ENGL 310  Narrative Journalism
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40

Students learn to identify, understand and use the techniques of
fiction in the service of nonfiction material. While studying the
texts as literature, students are also encouraged to view them as
models for writing. Assignments include the writing and
revising of articles, based on research and interviews, and
written in story form, drawing on literary techniques. (YR).

ENGL 311  British Lit: Beowulf to Milton
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

A study of British literature from the Anglo-Saxon period to the
works of John Milton, designed to introduce students to
important authors, works, and literary movements in their wider
historical and cultural contexts. (YR)

ENGL 312  British Lit: Milton to 1900
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

A study of British literature from the works of John Milton to
1900, designed to introduce students to important authors,
works, and literary movements in their wider historical and
cultural contexts. (YR)

ENGL 313  American Lit: Colonial to 1900
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

A study of American literature from the Colonial period to 1900,
designed to introduce students to important authors, works,
and literary movements in their wider historical and
cultural contexts. (YR)

ENGL 314  Brit & Amer Lit: 1900-Present
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

A study of British and American literature from 1900 to the
present, designed to introduce students to important authors,
works, and literary movements in their wider historical and
cultural contexts. (YR)

ENGL 317  Case Studies in Tech Writing
3.000 Credits
Must be enrolled in one of the following classes:
Junior
Senior
Graduate
Prerequisites: COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40

ENGL 317 offers both practical and conceptual studies in
technical writing and is open to non-technical as well as
technical students. (Engineering students may take ENGL/
COMM 317 for elective credit.) The course offers in-depth
treatment of the communication problems and various document
designs common to technical writing professionals. Instructional
format includes lectures and discussion based on case material
derived from actual events, followed up by preparation of
written documents. Topics will include document design,
language barriers, and the role of technical documents in product
liability. (AY).

ENGL 323  Advanced Creative Writing
2.000 TO 3.000 Credits
Prerequisites: ENGL 223 or COMP 223

Practice in writing poetry, the short story, the novel, and/or the
play. May be repeated to a maximum of six credit hours. (OC).
ENGL 327  Advanced Exposition
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40
A study of rhetorical theory and its application to various types of expository essays. Writing assignments will reflect the types of essays studied. May be repeated to a maximum of six credit hours. (YR).

ENGL 330  Feature Writing
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40
An introduction to the writing of feature stories for magazines and newspapers. Students read and discuss classic examples and study the methods of gathering information, of weaving an article from a variety of story elements, and of preparing a manuscript for publication.

ENGL 331  Online Reptng, Resrch, Writing
3.000 Credits
Prerequisites: COMP 106 or COMP 110 or COMP 270 or CPAS 40
Course introduces the technical, social, legal and ethical practice of online research, focusing on research skills required by journalists and other writers. Students use new media technology to generate ideas, to research subjects, and to develop general-audience writing projects in their areas of interest. Course covers the use of Web search engines, directories and databases; finding sources and interviewing people online; evaluating the credibility of online sources and information; using Lexis-Nexis to access archives and public records; and using spreadsheet and database programs.

ENGL 341  Religion and Literature
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)
An investigation of the ways in which religious ideas and practices have informed works of literature, and vice versa. Surveying a variety of genres and themes, the course will focus mainly on British and/or American literature and its engagement with Judaico-Christian religion, though some attention may be devoted to other literary and religious traditions (e.g., ancient and medieval texts, European and world literature, Islam and Eastern religions).

ENGL 342  Myth and Motif
3.000 Credits
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200
A study of archetypal figures and thematic motifs. Their recurrent appearance in different literary periods and genres and their lineage will be examined in order to increase understanding of the works themselves and of the ages which produced them. A selection will be made from classical myth, Biblical narrative, and historical sources. Thus, the figures may vary from Oedipus and Cain to Faust and Don Juan. Motifs and story patterns may include such devices as the spiritual quest, the journey into Hell, or the patricide prophecy.

ENGL 343  Adaptations of Literary Texts
3.000 Credits
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239) and (COMP 106 or COMP 220 or COMP 270 or COMP 280)
This course explores the adaptation of literary texts in a variety of literary genres (poetry, drama, fiction) to other artistic mediums (film, graphic novels/comics, paintings, etc.). Moving beyond limited comparisons of "good" originals and "bad" adaptations, this course focuses on the dialogue among multiple versions of the same story across a range of historical periods, asking how and why adaptations modify their sources in a particular manner. This course addresses the difference between adaptation and appropriation as well as imitation, quotation, allusion, pastiche, and parody.

ENGL 345  Modern Literature: Drama
3.000 Credits
A careful reading of selected plays from Ibsen to the contemporary theater, designed to develop appreciative criticism and an understanding of the plays in their relationships to movements in modern drama, theater, background social forces, and trends of thoughts.

ENGL 346  Bible and Western Tradition
3.000 Credits
A detailed study of major episodes from the Bible, first as a literary work, and second as it is reflected in both poetry and the visual arts during the Renaissance and Baroque periods. Included are selected works by such masters as John Donne, George Herbert, and John Milton in poetry and Michelangelo, Raphael, and Leonardo da Vinci in painting and sculpture. (AY).

ENGL 347  Classl Lit/Engl Translation
3.000 Credits
Must be enrolled in one of the following classes:
Junior
Senior
Graduate
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200
A study of masterworks of ancient Greek and Roman literature with special attention to the development of epic, tragedy, and comedy. Authors studied will include Homer, Virgil, Aeschylus, Sophocles, Euripides, Aristophanes, Terence, and Plautus.

ENGL 349  The Bible In/As Literature
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)
This course will study selected readings from the Bible, first in regard to their own literary, historical, and cultural contents, and then in regard to their reception, interpretation, and reapplication by later literary tradition. Biblical selections may cover both the Old and New Testaments as well as Apocryphal traditions, while readings from later non-biblical texts will be drawn from various literary periods.
ENGL 356  Reading Urban Monstrosity  
3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
This course questions the literary techniques and forms that the English writers developed between 1660 and 1900 to characterize and imagine London to be a unified community and to counter the growing perception of London as a "monstrous city." This image of "the English-speaking City" as an uncontrollable monster may be explored in writings by Daniel Defoe, Jane Austen, Elizabeth Gaskell, Robert Louis Stevenson, Charles Dickens, Thomas Hardy, and Joseph Conrad.

ENGL 361  Am Lit: 1630 to Civil War  
2.000 TO 3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
A wide-ranging exploration of American literature from its colonial origins through the Civil War. The works of such major authors as Anne Bradstreet, Benjamin Franklin, Frederick Douglass, and Herman Melville will be studied in cultural context.

ENGL 363  Am Lit: Civil War to WW I  
3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
A study of the major trends in American prose and poetry, including realism and naturalism, during the late nineteenth and early twentieth centuries, through the work of such authors as Walt Whitman, Mark Twain, and Sara Orne Jewett.

ENGL 364  Writing for Civic Literacy  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40  
In Writing for Civic Literacy, students will study how politicians, the media and critical citizens use language to engage with the broader community. Students themselves will learn to use language to become more active, well-informed citizens. They will study rhetorical awareness, audience analysis and persuasive writing techniques and put those lessons to use in community settings. They will perform community service at agencies of their choosing and use those experiences as objects of analysis, researching the social context in which those agencies operate and writing analytically about the agencies. Further, students will synthesize classroom lessons and real-world experience by executing writing tasks for and with the agencies (these tasks might include editorials for the local press, informational webpages and fundraising materials).

ENGL 368  20C/21C British/Amer Poetry  
3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
A survey of 20th- and 21st-century British and/or American poetry and poets, including such authors as Wallace Stevens, W.H. Auden, T.S. Eliot, Dylan Thomas, Langston Hughes, and Sylvia Plath.

ENGL 370  Narratives of Film and Lit  
3.000 Credits  
Prerequisites: HUM 248 or ENGL 248 or FILM 248 or JASS 248  
Explores the narrative conventions of literary and filmic fictions in a cultural, historical, and psychoanalytic context. Goes beyond a discussion of the relative merits of novels and their respective film adaptations and examines the more complex interchanges between the two narrative forms, the ideological function of narrative in contemporary society, and the effect of the medium of a fictional text on the reader/viewer. (AY).

ENGL 371  Eng Lit from Begin-1500  
2.000 TO 3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
A survey of Old and Middle English literature (mostly in translation) designed to acquaint students with the development of themes and techniques of English authors writing before 1500. (OC)

ENGL 372  Eng Lit: 1500 to 1600  
2.000 TO 3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)  
A survey of English literature from the beginnings of the Renaissance in England through the works of Sidney, Spenser, and Shakespeare (excluding his plays).

ENGL 373  Eng Lit 1600-1660  
3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)  
A survey of English literature from Jonson, Bacon, and Donne through the Metaphysicals, the Cavaliers, and Milton's early poems. Representative prose works will also be studied.

ENGL 374  Restoration & Early 18th Cen Lit  
3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)  
A survey of English literature of the Restoration and early 18th century, with special emphasis on verse satire (Swift, Montague, and Pope), Restoration drama (Behn, Wycherly, and Congreve), and the origins of the English novel (Defoe, Fielding, and Richardson). (OC)
ENGL 375  The Age of Johnson and Burney
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A survey of English Literature of the late 18th century. Readings
address the literary gothic, Boswell's journals, the "graveyard
school" of poetry, Samuel Johnson's poetry and prose, the 1789
revolutionary fervor, and the novels of Frances Burney and Jane
Austen.

ENGL 376  Brit Lit in Romantic Era
2.000 TO 3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A survey of British literature from 1789 to 1832 with special
emphasis on the rise of Romantic poetry.

ENGL 377  Victorian Poetry and Prose
2.000 TO 3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A survey of British poetry and prose during the reign of Queen
Victoria 1837 to 1901.

ENGL 381  Intro to Postcolonial Studies
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and ENGL 200 or ENGL 230
or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240 or
ENGL 250

This course offers a general introduction to Postcolonial Studies
- a field of cultural inquiry that questions how personal identity
(specifically race, language and ethnicity) shapes, and is shaped
by, the politics of colonization and nationalism. Students will
clarify the subject of Postcolonial Studies by examining a
variety of cultural and linguistic objects (literature, film, TV-
culture halls, journalism, slave- and middle-passage-narrative, and political
dominance) from a variety of cultural perspectives (Arab
American, Anglo-Indian, West African, and Caribbean).

ENGL 383  American English
2.000 TO 3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

The development of American English and its dialects interpreted in the light of cultural history and processes of
language change.

ENGL 386  Gender Issues in Literature
3.000 Credits
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or
ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or
ENGL 239 or ENGL 200

A study of gender issues in English and American literature. The
exact topic will vary from semester to semester, but the course
may feature such topics as gay and lesbian literature, feminist
criticism, images of masculinity, the representation of sexual
ideologies, etc. Course may be repeated for credit when specific
topic differs.

ENGL 389  The Odyssey of Blk Men in Amer
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 200 or ENGL 230
or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

This course will examine the struggle of African American men
for personal, political, and creative expression. This course
incorporates several literary genres (narrative, fiction, essay,
drama, and poetry) and the literary voices of black men who range
from professional writers to politicians, from athletes to actors.
Students will be required to critically read, discuss, analyze, and
write their own responses to the literature found in the texts.

ENGL 390  Topics in English
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 200 or ENGL 230
or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

Examination of problems and issues in selected areas of English.
Title as listed in Schedule of Classes will change according to
content. Course may be repeated for credit when specific topics
differ. (OC).

ENGL 394  Psychology and Theater
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230
or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or
ENGL 236 or ENGL 237 or ENGL 239)

The linkages between psychology and theater are analyzed from
the perspective of the actor, the audience, and the analyst (both
psychotherapeutic and literary). This includes ties between plays
and theories of human behavior, psychodrama, and self-insight
through performance. Class involves a significant experiential
component.

ENGL 399  Independent Studies in English
1.000 TO 3.000 Credits

Readings or analytical assignments in English, selected in
accordance with the needs and interests of those enrolled and
agreed upon by the instructor and the student. May be repeated
for a maximum of 6 credit hours. (F,W).

ENGL 400  Maj Engl Auth of the Mid Ages
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A concentrated study of the works of three or four major authors
of medieval England, from the 13th through the 15th centuries.
ENGL 401  Lit of Anglo-Saxon England  
2.000 TO 3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
A literary analysis of Beowulf and other old English poems. Some attention will be given to the structure and pronunciation of Old English. Students cannot receive credit for both ENGL 401 and ENGL 501.

ENGL 404  Medieval Mystical Writers  
3.000 Credits  
Prerequisites: (COMP 106 or COMP 270 or COMP 220 or  
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or  
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239)  
A study of the genre of mystical writing as it was developed and practiced throughout the Middle Ages and in 14th century England particularly. Attention will be given to the historical, religious, and cultural contexts that enabled and were created by mystical texts. In addition, the course will explore how traditional and contemporary trends in the fields of religious and literary studies can be brought to bear on the genre of mystical writing.(OC)

ENGL 405  Chaucer  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or COMP 270 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239)  
An introduction to the poetry of Chaucer, with primary reference to the Canterbury Tales and some attention to Chaucer's short poems. Students cannot receive credit for both ENGL 405 and ENGL 505.

ENGL 406  Studies in Medieval Lit/Cult  
3.000 Credits  
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or  
COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or  
ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239)  
An intensive study of a single author, movement, genre, or theme in the Medieval period. Lectures will explore historical and cultural contexts and the relevance of contemporary methodologies to the study of Medieval texts.

ENGL 408  Shakespeare I: Earlier Works  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
Intensive study of selected works from the first half of Shakespeare's career, designed to increase the student's critical appreciation and understanding. Students cannot receive credit for both ENGL 408 and ENGL 508.

ENGL 409  Shakespeare II: Later Works  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
Intensive study of selected works from the second half of Shakespeare's career, designed to increase the student's critical appreciation and understanding. Students cannot receive credit for both ENGL 409 and ENGL 509.

ENGL 410  Maj Engl Authors of the Renais  
2.000 TO 3.000 Credits  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
An investigation of significant themes and attitudes current in the Renaissance, as seen through an intensive examination of the works of two or three major authors, such as More, Spenser, Bacon, and Donne.

ENGL 412  Milton  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
An intensive study of Paradise Lost and Paradise Regained, Areopagitica and the shorter poems, including Samson Agonistes and Comus. Consideration is given to historical background and to other writings by Milton insofar as they illuminate his major works. Students cannot receive credit for both ENGL 412 and ENGL 512.

ENGL 413  Engl Ren Drama, Exc Shakespr  
2.000 TO 3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
An examination of representative works of Elizabethan and Stuart playwrights, with special attention being given to the literary history reflected in the plays.

ENGL 414  Seventeenth-Century Readings  
2.000 TO 3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or  
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231  
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or  
ENGL 237 or ENGL 239 or ENGL 200)  
An intensive study of mid-17th century authors or literary movements, such as Browne, Burton, and the metaphysical poets. Students cannot receive credit for both ENGL 414 and ENGL 514.
ENGL 420  Maj Engl 18th-Century Authors
2.000 TO 3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of two or three authors, such as Dryden, Behn,
Pope, Swift, Burney, Austen, or Samuel Johnson. Students cannot
receive credit for both ENGL 420 and ENGL 520.

ENGL 421 Swingwers, Flirts, & Libertines
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and (ENGL 230 or ENGL 231 or
ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An examination of the functions that writers in English have
assigned to literary decadence, libertinism, and aestheticism (or,
the study of beauty and "art for art's sake"). We will read writers
who identified themselves as libertines as well as writers who
represented libertines as we address the Restoration rake
(Rochester & Benth), the Regency buck (the Shelleys &
DeQuincey), the Victorian dandy (Oscar Wilde, Michael Field,
& the Decadents), the modern playboy (Nin, Waugh & Fitzgerald),
hippie-singer (Wolfe & Jagger), and finally, the postmodern
player-celebrity (Bret Easton Ellis, Will Self & rock-lyricists).

ENGL 422 Satire
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or
COMP 280 or CPAS 40) and ENGL 200 or ENGL 230 or
ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239

An exploration of satirical writing and its functions from its English
origins in eighteenth-century London (Montagu, Swift, Pope) to its
twenty-first-century reincarnations in both America and Britain
(Zadie Smith, Burgess, Schulyer, Hughes, Waugh). The course
emphasizes the various goals that writers have assigned to satire,
especially in terms of race, gender, and nationalism.

ENGL 423 Restoration Drama
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A survey of playwriting and theatrical performance in England
from Charles II's opening of the theaters in 1660 to the
Licensing Act of 1737. Playwrights and movements include
historical drama (Dryden, Rowe), tragiocomedy (Southerne),
urban social satire (Behn, Etherege, Gay, Cantilever, and
Congreve), subversive comedy (Behn and Wycherley),
sentimental comedy (Steele), and revisions of Shakespeare.

ENGL 424 18th-Century English Novel
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 240 or ENGL 250)

A study of the rise and development of the English novel during the
18th century. Consideration is given to such novelists as Defoe,
Richardson, Fielding, Sterne, Austen, and Smollett. Students cannot
receive credit for both ENGL 424 and ENGL 524.

ENGL 430 Stud in 19th-Century Brit Lit
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

Intensive study of a special topic in 19th-century British
literature. The course may treat a single author (e.g., Dickens), a
movement (e.g., the Pre-Raphaelites), or a theme (e.g., literary
responses to the French Revolution, the literature of mental
crisis, Victorian social criticism).

ENGL 431 British Romantic Writers
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of selected British Romantic writers, with
attention to the historical and literary contexts in which they
wrote. Students cannot receive credit for both ENGL 431 and
ENGL 531.

ENGL 432 Victorian Writers
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of selected Victorian poets and/or nonfiction
prose writers, with attention to the literary and historical
contexts in which they wrote. Students cannot receive credit for
both ENGL 432 and ENGL 532.

ENGL 434 The Victorian Novel
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A study of the British novel during the reign of Queen Victoria,
1837 to 1901.

ENGL 436 Memoir and Travel Writing
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 280 or
CPAS 40

A course in narrative non-fiction that focuses on memoir and
travel writing. Reading involves several books as well as classic
essay-length examples. Assignments include both short
analytical papers and the writing and revising of three original
articles, based on research, interviews, memory, and
observation, and drawing on literary techniques. (YR).
ENGL 440  Major 20C/21C Engl/Amer Authors
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive examination of the works of representative English
and American authors since 1900. Students cannot receive credit
for both ENGL 440 and ENGL 540.

ENGL 441  Major 20C/21C English Authors
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of several modern English authors, such as
Shaw, Joyce, Forster, Dylan Thomas, D.H. Lawrence, and
Woolf. Students cannot receive credit for both ENGL 441 and
ENGL 541.

ENGL 442  Studies in 20-21 Century Lit
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

Intensive study of a special topic in 20th- or 21st-century
literature in English. The course may treat a single author (e.g.
E.M. Forster), a movement (e.g. Postmodernism), a genre (e.g.
modern short story), or a theme (e.g. Literature of World War).

ENGL 443  Anglo-Irish Literature
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A survey of Irish Literature written in English. Special emphasis
will be given to Swift, Lady Gregory, Synge, Yeats, Joyce, and
O’Casey, whose works will be examined in the context of
Ireland’s unique history and culture.

ENGL 444  Sem in 20C/21C Poetry
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

A seminar focusing on the poems of two or three English and/or
American poets of the 20th- or 21st-century. Intensive
discussion of individual poems, along with lectures on authors' critical and historical backgrounds.

ENGL 445  20C/21C Women Authors
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An analysis of selected works by significant and emerging 20th
and 21st century women authors writing in English, with special
emphasis on issues of gender and social and cultural identity.

ENGL 450  Maj Am Auth to the Civ War
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of two or three authors, such as Charles
Brockton Brown, Nathaniel Hawthorne, or Harriet Beecher
Stowe, from the earlier periods of American Literature. Students
cannot receive credit for both ENGL 450 and ENGL 550.

ENGL 451  Maj Am Auth Civ War to WWI
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of two or three major authors from the period
between the Civil War and World War I, such as Emily
Dickinson, Charles Chesnutt, or Henry James. Students cannot
receive credit for both ENGL 451 and ENGL 551.

ENGL 452  Major 20C/21C American Authors
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of several modern American authors, from
the World War I to the present, such as Langston Hughes, Frost,
Hemingway, and Faulkner. Students cannot receive credit for
both ENGL 452 and ENGL 552.

ENGL 453  Contemporary American Novel
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or
COMP 280 or COMP 270) and (ENGL 230 or ENGL 231
or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or
ENGL 237 or ENGL 239 or ENGL 200)

An intensive study of a single American novel and its author,
with emphasis on major works by major authors and
representative works by lesser-known writers in order to explore
technical, thematic and critical crosscurrents among the works. Students cannot
receive credit for both ENGL 453 and ENGL 553.
ENGL 454  Postmodern Literature
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)

This course explores the expression of postmodernism in literature (primarily fiction) and critical theory. Selected works of fiction and creative non-fiction will be analyzed in terms of the problems and issues raised by the postmodern movement. Students cannot receive credit for both ENGL 454 and ENGL 554.

ENGL 455  Stud in 19th-Cent Amer Lit
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)

Close investigation of a special topic in 19th century American literature. The course may treat a single author (e.g. Whitman), a movement (e.g. transcendentalism), or a theme (e.g. utopianism, technology, or pragmatism), and may draw on work from other field of study.

ENGL 456  Teaching Fiction
3.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate
- Freshman
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)

Must be enrolled in one of the following Colleges:
- Coll of Ed, Health, &Human Ser
- Coll of Arts, Sciences&Letters
May not be enrolled in one of the following Classes:
- Sophomore
- Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)

ENGL 461  Modern English Grammars
3.000 Credits
May not be enrolled in one of the following Classes:
- Graduate
Prerequisites: LING 280 or LING 281 or LING 480 or LING 480

The morphological and syntactic analysis of the structure of present day English considered in the light of modern linguistic science. Students cannot receive credit for both ENGL 461 and ENGL 561.

ENGL 464  Contemporary Rhetorical Theory
3.000 Credits
May not be enrolled in one of the following Classes:
- Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

An examination of contemporary rhetorical theories through study of representative practitioners and related developments in linguistics, philosophy, psychology, communication, and composition and rhetoric. Students may not receive credit for both ENGL 464 and ENGL 564.

ENGL 465  Discourse Analysis
3.000 Credits
May not be enrolled in one of the following Classes:
- Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (COMM 201 or COMM 220 or COMM 290 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240 or ENGL 250)

An examination of the syntactic and semantic devices and structures underlying communication in written texts and oral interaction. Material to be analyzed will vary from term to term (technical reports, scholarly articles, newspaper stories) but examples will be drawn primarily from the written language. Students cannot receive credit for both ENGL 465 and ENGL 565. (OC).

ENGL 467  Script-Writing Workshop
3.000 Credits
Prerequisites: JASS 310 or COMP 310 or ENGL 310 or COMM 310

This writing intensive course will train students to compose a film script, focusing on the substance, structure, and style of an original screenplay. The course will be conducted as a workshop in which students will first study classic scripts (and films based on these) of the film-school generation of directors, then model scenes and sequences of their own scripts on the principles of the above texts, and finally, write their own respective film stories in accordance with an appropriate narrative structure and design. (YR).

ENGL 468  Writing Young Adult Fiction
3.000 Credits
May not be enrolled in one of the following Classes:
- Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 223 or COMP 223)

In this course participants will explore the young adult novel from the point-of-view of a reader and a writer. They will read recently published and critically acclaimed popular young adult novels. They will consider the constraints and identity as they relate to young adult lives and their respective cultures generally. They will use these texts as models for the production of their own texts and will consider the constraints and benefits of constructing and writing to a particular audience. They will consider if and why young adult novels are abbreviated or limited in relationship to adult literature. In addition to reading about ten novels, they will complete several creative exercises leading up to a final portfolio. Students will not receive credit for both ENGL 468 and ENGL 568.

ENGL 469  Contemporary African Amer Lit
3.000 Credits
May not be enrolled in one of the following Classes:
- Graduate
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240 or ENGL 250)

An intensive study of major 20th-century African-American writers. Fiction, poetry, autobiography, and drama will be examined but one genre will be stressed in any given term, e.g., the novel. Lectures will provide historical and biographical context for analysis and discussion of the works. Students cannot receive credit for both ENGL 469 and ENGL 569. (OC).
ENGL 4705  Black Women / Lit, Film, Music
3.000 Credits
Prerequisites: FILM 240 or FILM 248 or FILM 385 or AAAS 239 or AAAS 275 or WST 275 or WGST 275 or WST 370 or WGST 370 or HUM 221 or HUM 222 or HUM 223 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 237 or ENGL 239 or ENGL 248 or ENGL 200 or ANTH 275 or HUM 275 or PSYC 275 or SOC 275 or WGST 303 or HUM 303 or ANTH 303 or PSYC 303 or SOC 303

This course will examine works produced by Black women authors, activists, filmmakers and musical performers in order to determine the methods they have incorporated in order to challenge and eradicating the prevailing stereotypes about Black women while advancing their own personal and racial agendas. It will also focus on the extent to which race, gender and class have shaped the creative work of Black women. Students will be required to read, discuss, analyze and write their own responses to the works of such firebrands as author Zora Neale Hurston, activist Ida B. Wells, filmmaker Julie Dash, and singer Billie Holliday.

ENGL 471  Sexual Subcultures in Lit
3.000 Credits
Prerequisites: (ENGL 200 or ENGL 231 or ENGL 230 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239) and (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40)

This course surveys primarily contemporary literature by writers who identify as gay, lesbian, bi-sexual, transgender, or queer. By studying the self-representation and culturally unique perspective of this emerging canon of writers, students in this course understand the emergence of LGBTQ literary traditions and understand the cultural diversity within these traditions. Students learn to identify the aesthetic qualities (such as camp, performativity, coded subtexts, homoeroticism, and the relationship between creativity and sexuality), and historical, political, and social concerns that characterize LGBTQ literary and cultural production. Topics covered include the struggle for civil rights before and after Stonewall, coming out narratives, the negotiation of homophobic cultures, post-colonial writers, and memoirs of the LGBTQ experience, as well as the historical emergence of sexual categories and the literary critique of heteronormativity. This course counts toward the English discipline diversity requirement. Students cannot receive credit for ENGL 471 and ENGL/WGST 571.

ENGL 472  Reading in Multicult Contexts
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

An examination of the effect of different cultural backgrounds on reading and literature. Topics include contrastive rhetoric, folk narrative, and multicultural juvenile literature. This course does not satisfy requirements for the English concentration. Not open to English concentrators. Students cannot receive credit for both ENGL 472 and ENGL 572. (YR).

ENGL 473  Arab American Women Writers
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 238 or ENGL 239

Examines the literary and cultural contributions of Arab and Arab American women novelists, poets and artists to the development and consolidation of the cultures of understanding and coexistence; explores the tensions between citizenship and belonging, race and the politics of fears, gender and geographical mobility, and ethnic minorities and mainstream consciousness; discerns how Arab women writers and artists retool their various artistic endeavors to channel socio-political disenchantment, critique and civil disobedience; stresses how literary and artistic productions of a heterogeneous number of Arab American women writers and artists can indeed foster alternative visions of socio-cultural coexistence, dialogue and hospitality via artistic commitments to technical and stylistic experimentation and renovation. Students cannot receive credit for both ENGL 473 and ENGL 474. For graduate credit take ENGL 573.

ENGL 474  Second Lang Acquisition: Engl
3.000 Credits
Prerequisites: LING 280 or LING 281 or LING 480

A survey of fundamental concepts and major concerns in the study of English as a Second Language (ESL). The course examines a variety of psycholinguistic and sociolinguistic issues related to second language acquisition (SLA), ranging from theoretical to pedagogical. A primary focus is on developmental patterns and cognitive processes of SLA and individual variation in ESL speakers in terms of their social motivations and learning strategies. Implications for practical concerns such as the ESL teaching profession, instructional materials and curriculum development will be addressed where relevant.

ENGL 477  African American English
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: LING 280 or LING 281 or LING 480

An examination of the structure, history and use of African-American English. Topics will include the pronunciation, grammar and vocabulary of African-American English, theories of origin, linguistic repertoire and code-switching in African-American communities, the Ebonics controversy, and the role of this variety in education and identity formation. Students cannot receive credit for both ENGL 477 and ENGL 577.

ENGL 482  History of the English Lang
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: LING 280 or LING 480

A thorough grounding in the history and structure of the English language. At issue are the linguistic and ideological origins of the concept of Standard English, and the strengths and limitations of different methods of analyzing the history of the language. The course will emphasize sound change, grammatical change, and their sociological context. (YR)
ENGL 484 World Englishes
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: LING 280 or LING 480
A study of the origin and significance of different forms of English throughout the world. Contact with other languages, pidginization, creolization, standardization, and the formation of the three circles of English are examined. (YR)

ENGL 485 Theories of Writing
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280
In this course we will investigate why and how people write for particular audiences and in a variety of contexts. Subjects will include: cognitive and social theories of writing and the writing process, theories of persuasion, writing across the curriculum, writing for multiple audiences, writing in the workplace, writing for self and for publics, and teaching writing. The course will be useful to students interested in teaching writing at the K-12 level, those interested in careers in communication and those who wish to better understand how writing promotes personal and societal change. (YR)

ENGL 486 Queer Theory & Literature
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or AAAS 239)
This course reads theories of sexuality to analyze how writers since 1600 have imagined printed text to reflect and shape desire, particularly same-sex desire. The course questions how same-sex desire appears in literature written before the theorization of "the Homosexual" in the late nineteenth century as well as how writers imagine sexuality before a hetero/homosexual binary appears. Writers may include contemporary theorists (Sedgwick, Foucault, Butler) as well as novelists (Gaskell and Stoker), playwrights (Kusher and Wycherley), and poets.

ENGL 487 Monsters, Women & the Gothic
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)
This course questions our inheritance of "the gothic" as a distinct literary style that continues to discipline readers' notions of gender and sexual identity. The course argues that by tracing the gothic's literary history, we may simultaneously witness a history of gender formation. Readings may include English novelists who originated a gothic style in English (Walpole, Radcliffe, Lewis) as well as English and American poets and novelists who have debated as well as resisted the effects of the gothic on readers' (particularly women's) psychology (Christina Rossetti, Austen, King, Stoker).

ENGL 488 Env Lit & Reps of Nature
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 230 or ENGL 200 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)
An interdisciplinary study of the ways in which the relationship between "nature" and humankind has been represented in literature and other forms of cultural expression. Emphasis on American and British texts of the 19th centuries, but assigned materials may include readings from other cultures and historical periods.

ENGL 490 Advanced Topics in English
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)
Examination of advanced problems and issues in selected areas of English studies. Title as listed in the Schedule of Classes will change according to content. May be repeated for credit when specific topics differ.

**Environmental Science**

The environmental science major provides students with a strong background in areas of science related to environmental concerns and with an opportunity to study environmental problems from a scientific point of view that integrates biology, chemistry, earth science, and physics. The major leads to a BS degree and prepares students for careers in waste management, environmental consultation, teaching, environmental health and resource management.

**PREREQUISITES TO THE MAJOR**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 130</td>
<td>Introduction to Organismal and Environmental Biology</td>
<td>4 hrs</td>
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<tr>
<td>CHEM 134</td>
<td>General Chemistry IA</td>
<td>4 hrs</td>
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<tr>
<td>OR</td>
<td>CHEM 144</td>
<td>4 hrs</td>
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<tr>
<td>OR</td>
<td>CHEM 136</td>
<td>4 hrs</td>
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<td>OR</td>
<td>CHEM 146</td>
<td>4 hrs</td>
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<tr>
<td>GEOG 203</td>
<td>Weather and Climate</td>
<td>3 hrs</td>
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<tr>
<td>GEOL 118</td>
<td>Physical Geology</td>
<td>4 hrs</td>
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<tr>
<td>MATH 113 or 115</td>
<td>Calculus I</td>
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<tr>
<td>MATH 114 or 116</td>
<td>Calculus II</td>
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<tr>
<td>PHYS 100</td>
<td>Perspectives in Physics*</td>
<td>3 hrs</td>
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<tr>
<td>OR</td>
<td>PHYS 125</td>
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<td>OR</td>
<td>PHYS 150</td>
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*Note: Students in the Environmental Chemistry track must elect PHYS 125 or PHYS 150.

**MAJOR REQUIREMENTS** ........................................ 41-49 hrs

**Upper Division Core** .......................................... 22 hrs
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ESCI 304</td>
<td>Ecology</td>
<td>4 hrs</td>
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<tr>
<td>CHEM 344</td>
<td>Quantitative Analysis</td>
<td>4 hrs</td>
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<tr>
<td>ESCI 301</td>
<td>Environmental Science</td>
<td>4 hrs</td>
</tr>
<tr>
<td>ENST 301</td>
<td>Concepts of Environmentalism</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ESCI 395</td>
<td>Seminar on Environmental Issues</td>
<td>1 hr</td>
</tr>
</tbody>
</table>
At least three upper-level credit hours in Geology (GEOL) (beyond courses applied to other portions of the major requirements)

At least three upper-level credit hours in Environmental Science (ESCI) (beyond courses applied to other portions of the major requirements)

Research/Internship 3 hrs
At least three credit hours in ESCI 498 and/or ESCI 499 culminating in a public seminar presentation of research results

OR
ENST 385  Environmental Internship ........................................ 1 hr

AND
ENST 485  Seminar on Environmental Topics .......................... 2 hrs

Note: LIBS 300 and 395 may be substituted for ENST 385 if the cooperative education work assignment is environmentally oriented.

Specialization ............................................................. 16-24 hrs

One of the following tracks:

Environmental Biology Track

BIOL 140  Introduction to Molecular and Cellular Biology .......................... 4 hrs

Twelve credit hours in upper-level (300+) Biological Sciences courses (other than BIOL 304) including at least seven credit hours selected from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 360</td>
<td>Population Genetics and Evolution</td>
<td>3 hrs</td>
</tr>
<tr>
<td>BIOL 361</td>
<td>Population Genetics and Evolution Laboratory</td>
<td>1 hr</td>
</tr>
<tr>
<td>BIOL 390</td>
<td>Topics in Biology*</td>
<td>1-3 hrs</td>
</tr>
<tr>
<td>BIOL 490</td>
<td>Seminar in Biology*</td>
<td>1-3 hrs</td>
</tr>
<tr>
<td>BIOL 497</td>
<td>Seminar in Biology*</td>
<td>1 hr</td>
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<tr>
<td>ESCI 315</td>
<td>Aquatic Ecosystems</td>
<td>4 hrs</td>
</tr>
<tr>
<td>ESCI 320</td>
<td>Field Biology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>ESCI 337</td>
<td>Plant Biology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ESCI 414</td>
<td>Limnology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>ESCI 420</td>
<td>Advanced Field Ecology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>ESCI 497</td>
<td>Seminar*</td>
<td>1 hr</td>
</tr>
</tbody>
</table>

* Note: Acceptable when topic is environmentally oriented.

Environmental Chemistry Track

BIOL 140  Introduction to Molecular and Cellular Biology .......................... 4 hrs

OR
PHYS 126  Introductory Physics II ............................... 4 hrs

OR
PHYS 151  General Physics II ................................. 4 hrs

CHEM 352  Introduction to Toxicology ............................ 3 hrs
CHEM 368  Physical Chemistry I ................................. 3 hrs
CHEM 390  Current Topics in Chemistry* ......................... 1-3 hrs
CHEM 447  Instrumental Methods of Analysis .......................... 4 hrs
CHEM 469  Physical Chemistry II ................................. 3 hrs
CHEM 490  Topics in Chemistry* .................................. 1-3 hrs
CHEM 497  Seminar in Chemistry* .................................. 1 hr
CHEM 498  Readings in Chemistry* .................................. 1-3 hrs
CHEM 499  Laboratory Research in Chemistry* .................... 1-3 hrs
ESCI 352  Introduction to Toxicology ............................ 3 hrs

ESCI 348  Environmental Chemistry ............................... 3 hrs
ESCI 349  Environmental Chemistry Laboratory .................. 1 hr

At least eight additional credit hours selected from:

<table>
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<tr>
<td>BCHM 370</td>
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<tr>
<td>BCHM 470</td>
<td>Biochemistry I</td>
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<tr>
<td>BCHM 471</td>
<td>Biochemistry II</td>
<td>3 hrs</td>
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<tr>
<td>BCHM 472</td>
<td>Biochemistry Laboratory I</td>
<td>1 hr</td>
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</table>

BCHM 473  Biochemistry Laboratory II ............................ 1 hr
CHEM 352  Introduction to Toxicology ............................ 3 hrs
CHEM 368  Physical Chemistry I .................................. 3 hrs
CHEM 390  Current Topics in Chemistry* .......................... 1-3 hrs
CHEM 447  Instrumental Methods of Analysis ....................... 4 hrs
CHEM 469  Physical Chemistry II .................................. 3 hrs
CHEM 490  Topics in Chemistry* .................................. 1-3 hrs
CHEM 497  Seminar in Chemistry* .................................. 1 hr
CHEM 498  Readings in Chemistry* .................................. 1-3 hrs
CHEM 499  Laboratory Research in Chemistry* .................... 1-3 hrs
ESCI 352  Introduction to Toxicology ............................ 3 hrs

* Note: Acceptable when topic is environmentally oriented.

Earth Science Track

BIOL 140  Introduction to Molecular and Cellular Biology .......................... 4 hrs

OR
PHYS 126  Introductory Physics II ............................... 4 hrs

OR
PHYS 151  General Physics II ................................. 4 hrs

GEOL 377  Field Methods ............................................. 1 hr

At least eleven additional credit hours in upper-level (300+) Geology (GEOL) and physical geography courses. (Physical geography offerings include GEOG 310 and ESCI 330.)

Individualized Track

This track is a highly selective program for qualified students with well-conceived academic goals.

BIOL 140  Introduction to Molecular and Cellular Biology .......................... 4 hrs

OR
PHYS 126  Introductory Physics II ............................... 4 hrs

OR
PHYS 151  General Physics II ................................. 4 hrs

CHEM 370  Organic Chemistry I .................................... 3 hrs
CHEM 470  Organic Chemistry Laboratory ......................... 2 hrs
ESCI 348  Environmental Chemistry ................................ 3 hrs
ESCI 349  Environmental Chemistry Laboratory ............... 1 hr

At least 12 of the 37 upper level hours in the major must be elected at UM-D.

A minimum of 12 upper-level (300+) credit hours in natural sciences courses that address a common theme. Individualized specializations must be developed in consultation with the Environmental Science program advisor, and the proposed coursework must be approved by the Environmental Science Program Committee before the student achieves senior standing.

NOTES:

1. A maximum of 72 hrs. in courses offered by the Department of Natural Sciences (ASTR, BCHM, BIOL, CHEM, ESCI, ENST, GEOL, MICR, NSCI, PHYS) may count in the 120 hrs. required for graduation.
2. At least 12 of the 37 upper level hours in the major must be elected at UM-D.
3. Students cannot take both CHEM 370 and CHEM 470 and/or 471 for any combination of major or minor requirements.
4. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in Environmental Science (ESCI) courses.
Environmental Science (ESCI)

COURSE OFFERINGS

ESCI 275 Intro to Environmental Science
3.000 Credits
A distribution course which surveys major environmental problems. Concepts discussed are ecology, environmental chemistry, methods of investigating the environment, and possible solutions to environmental problems. Three hours lecture. (YR).

ESCI 301 Environmental Science
4.000 Credits
Prerequisites: (CHEM 124 or CHEM 134 or CHEM 144) and GEOL 118 and BIOL 130
A survey of historical and current environmental problems, with emphasis on understanding causes, consequences, and control. Topics include human population growth, air pollution, water pollution, and waste disposal. Laboratory emphasizes an experimental approach to environmental problems, including data collection, analysis, and interpretation. Lecture and laboratory/recitation.

ESCI 304 Ecology
4.000 Credits
Prerequisites: BIOL 130 and (MATH 113 or MATH 104 or MATH 105 or MATH 115 or MPLS 116)
Co-requisites: ESCI 304L
Relationships between organisms and their environments. Patterns in the physical environment, physiological and behavioral adaptations, population dynamics, energy flow, nutrient cycling; succession. Three hours lecture, four hours laboratory (with field trips). (F).

ESCI 305 Intro to GIS
4.000 Credits
Prerequisites: GEOG 302
Co-requisites: ESCI 305L
The basic elements of geographic information systems, map interpretation and map design. Principles and methods of spatial data collection, analysis, and display are introduced. (W)

ESCI 315 Aquatic Ecosystems
4.000 Credits
Prerequisites: BIOL 130 and (CHEM 124 or GEOL 118)
An introduction to the physical, chemical, and biological characteristics of lakes, rivers, and wetlands emphasizing a comparison of ecosystem structure and function. Laboratory emphasizes data collection and analysis to characterize a representative lake, river, and wetland. Lecture and laboratory. (AY,F).

ESCI 320 Field Biology
4.000 Credits
Prerequisites: BIOL 130 or BIOL 100 or NSCI 120 or NSCI 233
Adaptations, taxonomy, systematics, ecology, and behavior of southeastern Michigan flora and fauna. Techniques of field observation and recording are emphasized. Skills in the use of identification keys and guides are developed. The campus Environmental Study Area is used intensively. Three hours lecture, four hours laboratory (with field trips). (S).

ESCI 330 Land Use Planning and Mgmt
4.000 Credits
Prerequisites: (BIOL 130 and GEOL 118) or ESCI 275
Environmental aspects of land use planning, park planning, and site planning. Consideration of soils, groundwater, topography, and sensitive natural features and their role in determining landuse suitability. Examination of the mechanics and effectiveness of the planning process. Lecture and recitation. (AY,W).

ESCI 332 Hazardous Waste Management
3.000 Credits
Prerequisites: GEOL 118 or ESCI 275
Environmental problems associated with solid and hazardous waste. Regulations governing the generation, transport, and disposal of hazardous waste. Waste management techniques, including reduction, reuse, recycling, treatment, incineration, and land disposal. Three hours lecture. (AY,W).

ESCI 337 Plant Ecology
3.000 Credits
Prerequisites: BIOL 130
This course focuses on different aspects of the relationship between plants and their environment. Topics include: a) interactions of plants with the physical environment; b) ways in which the environment acts to shape plant populations through evolution; c) intra- and interspecific interactions among individuals; and d) large-scale patterns and processes at the landscape-level. Three hours lecture.

ESCI 348 Environmental Chemistry
3.000 Credits
Prerequisites: CHEM 344 and (CHEM 225 or CHEM 325)
Description of the concepts, principles, practices, and current problems in the chemistry of natural waters, the soil, and the atmosphere. Three hours lecture. (AY,W).

ESCI 349 Environmental Chemistry Lab
1.000 Credits
Prerequisites: ESCI 348 * or CHEM 348 *
Collection and analysis of air, water, soil, and organisms for pollutants such as noxious gases, heavy metals, and trace organics. EPA-approved methods are emphasized. Four hours laboratory. (AY,W).

ESCI 352 Introduction to Toxicology
3.000 Credits
Prerequisites: CHEM 225
An introduction to the principles of toxicology with an emphasis on environmental toxicology. Major topics include toxic agents, toxicological mechanisms, and use of toxicological reference literature. Discussion of chemical carcinogenesis, genetic toxicity, immunotoxicology, teratology, and toxic responses of the skin, eyes and nervous system. Three hours lecture. (AY,W).

ESCI 370 Environmental Geology
3.000 Credits
Prerequisites: GEOL 118
Interactions between people and the physical environment. Geological hazards and natural processes, such as earthquakes, volcanism, floods, landslides, and coastal processes. Relationships between geology and environmental health, including chronic disease, water use and pollution, waste disposal, mineral resources, and energy use. Three hours lecture. (AY).
ESCI 372  Energy Resources  
3.000 Credits  
Prerequisites: GEOL 118 or ESCI 275 or ESCI 301

Origin and development of fossil fuels (petroleum, coal, natural gas) and of radioactive ores used in nuclear power. Renewable and alternative energy sources, including hydro, solar, wind, biomass, and geothermal power. Environmental impacts of energy use. Three hours lecture. (OC).

ESCI 375  Groundwater Hydrology  
4.000 Credits  
Prerequisites: GEOL 118  
Co-requisites: ESCI 375L


ESCI 390  Topics in Environmental Sci  
1.000 TO 3.000 Credits

A course in special topics current to environmental science. Topics and format may vary. See current Schedule of Classes.

ESCI 395  Sem on Environmental Issues  
1.000 Credits

Readings, discussions, and presentations which examine current environmental issues. One hour seminar. Permission of instructor. (F,W).

ESCI 414  Limnology  
4.000 Credits  
Prerequisites: BIOL 130 and (CHEM 136 or CHEM 146)  
Co-requisites: ESCI 414L

The study of the structural and functional relationships and productivity of organisms in lakes and streams as they are regulated by their physical, chemical and biotic environments. Laboratories will emphasize field study of area lakes and streams. Three hours lecture, four hours laboratory. BIOL/ESCI 304 or ESCI 275 recommended.

ESCI 416  Stream Ecology  
4.000 Credits  
Prerequisites: BIOL 304

A study of the physical, chemical and biological characteristics of streams and rivers. Three hours lecture, four hours laboratory. (OC).

ESCI 420  Advanced Field Ecology  
4.000 Credits  
Prerequisites: BIOL 304 or BIOL 320 or ESCI 320

An intense study of behavioral ecology and field-oriented research at an advanced level, utilizing ecological habitats on campus and in surrounding urban areas. Focus will be on plant/animal interactions and will include pollination ecology, reproduction and distribution ecology, optimal foraging theory, as well as hypothesis testing of animal migration and distribution of species in extreme urban environments. Three hours lecture, four hours laboratory. (OC).

ESCI 490  Topics in Environmental Sci  
1.000 TO 3.000 Credits

A course in special topics of current interest in environmental science. Topics and course format may vary; see current Schedule of Classes for availability. (OC)

ESCI 497  Seminar in Environmental Sci.  
1.000 Credits

Readings, discussion, and presentation of research in selected areas of study. One hour seminar. Permission of instructor. (OC).

ESCI 498  Indep Study in Environ Sci  
1.000 TO 3.000 Credits

Library research and independent study performed under the guidance of a faculty member. Four to twelve hours readings. Permission of instructor. (F,W,S).

ESCI 499  Lab Research in Environ Sci  
1.000 TO 3.000 Credits

Directed laboratory or field research performed under the guidance of a faculty member. Four to twelve hours laboratory. Permission of instructor. (F,W,S).

Environmental Studies

The solutions to the current environmental problems are complex and require teamwork and understanding between specialists and generalists in many disciplines. The AB in Environmental Studies degree program focuses on the interdisciplinary nature of environmental problem solving at the local, regional and international level. Students can choose from among four (4) focus areas. Throughout their academic studies, students in this program interact with students in the Environmental Science program.

CAREER OPPORTUNITIES

Upon completion of this program, the graduates have a great variety of career opportunities available in both the public and private sector. For example, recent graduates hold such positions as teacher, national park naturalist, resource policy planner, Regional Director of International Joint Commission, Director of Environmental Programs for SEMCOG, regional land use planner, public health officer, and director of a public interest group. All students who qualify for graduate school should seriously consider working toward an advanced degree, which is required for most leadership positions.

INTERNSHIP PROGRAM

An important feature of this program is the internship requirement that allows the students to examine possible professional positions in an area of their interest through on-the-job experience. Some of the internships which environmental studies students have had are field analyst for the Michigan Department of Environmental Quality, hazardous waste analyst, marine safety inspector with the U.S. Coast Guard, public health sanitarian, researcher for a public interest group, national park naturalist, assistant to a state legislator, director of a community organic garden, summer camp nature director, and assistant analyst in a remote sensing operation.

PREREQUISITES TO THE MAJOR

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 130</td>
<td>Introduction to Organismal and Environmental Biology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>CHEM 134</td>
<td>General Chemistry 1A</td>
<td>4 hrs</td>
</tr>
<tr>
<td>GEOL 118</td>
<td>Physical Geology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>CIS 112</td>
<td>Computer Literacy/Info Mgmt</td>
<td>3 hrs</td>
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</table>

* MATH 104, 105, 113 or 115 is a required prerequisite for CHEM 134.  
**Other computer literacy courses may substitute for CIS 112 by petition.
Other lower-level prerequisite courses vary according to upper-level courses students elect to take. Review the list of courses in the Environmental Core Courses and the Focus Areas to determine the proper prerequisites. Some of the prerequisites may be fulfilled through the CAS&L Distribution Requirements.

**Environmental Core Courses** ........................................ 27-29 hrs

The graduate in Environmental Studies requires a broad background of knowledge in the Natural Sciences, the Humanities, the Social Sciences, and the Behavioral Sciences as well as interdisciplinary courses which provide a synthesis among disciplines. Students in the program will also have an opportunity to interact with a variety of environmental professionals through seminars and an internship.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENST 301</td>
<td>Concepts of Environmentalism</td>
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<td>ENST 305</td>
<td>Environmental Instrumentation and Analysis</td>
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<tr>
<td>ENST 385</td>
<td>Internship in Environmental Studies, 1.5 hrs</td>
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<tr>
<td>ENST 395</td>
<td>Seminar on Environmental Issues, 1 hr</td>
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<td>ENST 485</td>
<td>Seminar in Environmental Topics, 2 hrs</td>
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Choose one course from the following ........................................ 3 hrs

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<tr>
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<tbody>
<tr>
<td>ENGL 488</td>
<td>Environmental Literature and Representation of Nature</td>
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<tr>
<td>PHIL 312</td>
<td>Environmental Ethics</td>
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Choose two from the following........................................ 6 hrs

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<tr>
<td>ANTH 325</td>
<td>Anth of Env and Health</td>
<td>3 hrs</td>
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<tr>
<td>ENST 201</td>
<td>Cultural Ecology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 300</td>
<td>Urban Geography</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 310</td>
<td>Economic Geography</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 325</td>
<td>Environmental Politics</td>
<td>3 hrs</td>
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<tr>
<td>ENST 351</td>
<td>Environmental Economics</td>
<td>3 hrs</td>
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<tr>
<td>ENST 456</td>
<td>Ecological Economics</td>
<td>3 hrs</td>
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<tr>
<td>ENST 483</td>
<td>Justice, Crime and the Envir</td>
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<td>Comparative Enviro Policy</td>
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<td>ENST 491</td>
<td>Ecological Economics</td>
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**MAJOR REQUIREMENTS**

A minimum of 18 hours of courses chosen from one of the following four Focus Areas:

**Focus Area A: Land Resources** ........................................ 18 hrs

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<th>Hours</th>
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<tbody>
<tr>
<td>ENST 330</td>
<td>Land Use Planning &amp; Management</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 340</td>
<td>Remote Sensing</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 445</td>
<td>Environmental Law</td>
<td>3 hrs</td>
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**Required courses**

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<th>Course Title</th>
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<tr>
<td>BIOL 320</td>
<td>Field Biology</td>
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<tr>
<td>ENGL 488</td>
<td>Environmental Literature and Representation of Nature</td>
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**Electives**

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<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>ANTH 350</td>
<td>Prehistoric Archeology</td>
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<tr>
<td>BIOL 304</td>
<td>Ecology</td>
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<td>ENST 203</td>
<td>Weather and Climate</td>
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<td>ENST 204</td>
<td>Landforms</td>
<td>3 hrs</td>
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<td>ENST 310</td>
<td>Economic Geography</td>
<td>3 hrs</td>
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<td>ENST 325</td>
<td>Environmental Politics</td>
<td>3 hrs</td>
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<td>ESCI 332</td>
<td>Hazardous Waste Management</td>
<td>3 hrs</td>
</tr>
<tr>
<td>GEOL 305</td>
<td>Introduction to GIS and Cartography</td>
<td>4 hrs</td>
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<td>GEOL 370</td>
<td>Environmental Geology</td>
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<tr>
<td>GEOL 377</td>
<td>Field Geology*</td>
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**Focus Area B: Naturalist** ........................................ 18 hrs

**Required courses**

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<td>ENST 474</td>
<td>Principles of Environmental Education</td>
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<tr>
<td>ENST 486</td>
<td>Environmental Interpretation</td>
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**Electives**

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<tr>
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<tbody>
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<tr>
<td>ANTH 350</td>
<td>Prehistoric Archeology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ANTH 370</td>
<td>Indians of North America</td>
<td>3 hrs</td>
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<td>ANTH 430</td>
<td>Medical Anthropology</td>
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<td>BIOL 353</td>
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<td>ENST 488</td>
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<td>ESCI 305</td>
<td>Intro to GIS and Cartography</td>
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<td>Landforms</td>
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<td>GEOL 350</td>
<td>Geomorphology</td>
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<td>GEOL 377</td>
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<td>OB 354</td>
<td>Organizational Behavior</td>
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<tr>
<td>HRM305</td>
<td>Human Resource Policy &amp; Admin</td>
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**Focus Area C: Resource Policy and Management** ........................................ 18 hrs

**Prerequisite courses**

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<th>Course Title</th>
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**Required courses**

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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENST 325</td>
<td>Environmental Politics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 445</td>
<td>Environmental Law</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENST 351</td>
<td>Environmental Economics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>OR</td>
<td>ENST 456</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ESCI 304</td>
<td>Ecology</td>
<td>4 hrs</td>
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**Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ECON 372</td>
<td>Economic Demography</td>
<td>3 hrs</td>
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<tr>
<td>ENST 310</td>
<td>Economic Geography</td>
<td>3 hrs</td>
</tr>
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<td>3 hrs</td>
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<td>ENST 483</td>
<td>Justice, Crime and the Envir</td>
<td>3 hrs</td>
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<td>ESCI 332</td>
<td>Hazardous Waste Management</td>
<td>3 hrs</td>
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<tr>
<td>ESCI 372</td>
<td>Energy Resources</td>
<td>3 hrs</td>
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<tr>
<td>MATH 363</td>
<td>Introduction to Statistics</td>
<td>3 hrs</td>
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<tr>
<td>POL 300</td>
<td>Political Analysis</td>
<td>3 hrs</td>
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<tr>
<td>POL 312</td>
<td>Legislative Process</td>
<td>3 hrs</td>
</tr>
<tr>
<td>POL 487</td>
<td>Compar. Enviro Policy</td>
<td>3 hrs</td>
</tr>
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</table>

**Focus Area D: Urban Service** ........................................ 18 hrs

**Prerequisite courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 201</td>
<td>Macroeconomics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Microeconomics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>POL 101</td>
<td>Intro to Amer. Government</td>
<td>3 hrs</td>
</tr>
<tr>
<td>SOC 200</td>
<td>Understanding Society</td>
<td>3 hrs</td>
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**Required courses**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EXPS 410</td>
<td>Multiculturalism</td>
<td>3 hrs</td>
</tr>
<tr>
<td>GEOG 300</td>
<td>Urban Geography</td>
<td>3 hrs</td>
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<tr>
<td>POL 323</td>
<td>Urban Politics</td>
<td>3 hrs</td>
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<tr>
<td>SOC 435</td>
<td>Urban Sociology</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECON 481</td>
<td>Urban Economics</td>
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*Note: can be taken up to three times.*
Electives
<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ANTH 340</td>
<td>Race and Evolution</td>
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<tr>
<td>ANTH 455</td>
<td>Immigrant Cult. And Gender</td>
</tr>
<tr>
<td>ECON 351</td>
<td>Environmental Economics</td>
</tr>
<tr>
<td>OR</td>
<td></td>
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<tr>
<td>ENST 456</td>
<td>Ecological Economics</td>
</tr>
<tr>
<td>ENST 445</td>
<td>Environmental Law</td>
</tr>
<tr>
<td>ESCI 304</td>
<td>Ecology</td>
</tr>
<tr>
<td>ESCI 332</td>
<td>Hazardous Waste Management</td>
</tr>
<tr>
<td>GEOL 305</td>
<td>Intro to GIS</td>
</tr>
<tr>
<td>POL 300</td>
<td>Political Analysis</td>
</tr>
<tr>
<td>SOC 350</td>
<td>Sociology of Poverty</td>
</tr>
<tr>
<td>SOC 410</td>
<td>Research Methods</td>
</tr>
</tbody>
</table>

Notes:
1. Some upper level courses in Focus Areas A, B, C, and D may require additional prerequisites.
2. Courses used to satisfy ENST core area can also be used to satisfy focus area requirements.
3. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

MINOR OR BGS/LIBS AREA OF FOCUS
A minor or area of focus consists of 15 hours of upper-level credit in Environmental Studies (ENST).

Environmental Studies (ENST) COURSE OFFERINGS

**ENST 201 Cultural Geography**
3.000 Credits
Overview of the major components of culture such as language, religion, agriculture, settlement patterns, and related landscape features in a spatial context. Emphasis on how various cultures perceive and interact with the environment. (F).

**ENST 203 Weather and Climate**
3.000 Credits
The controls and conditions of Earth's weather and climate including atmospheric circulation, precipitation processes, severe weather, climatic regions, and climatic change. (F).

**ENST 204 Landforms**
3.000 Credits
Processes and agents that shape the landscapes and landforms of the Earth's surface. The discussion of landforms is divided into two parts: (1) constructive processes and their spatial distribution and (2) gradational processes and their spatial distribution. (W).

**ENST 300 Urban Geography**
3.000 Credits
The geography of human settlement and urbanization. Particular emphasis placed on human transformation of the physical environment, and resource use throughout history from ancient civilizations to modern megalopolises. Universal urban challenges such as sprawl, pollution, congestion, crime, poverty, etc., are addressed. (W).

**ENST 301 Concepts of Environmentalism**
3.000 Credits
Designed to identify the underlying concepts of any environmental issue. The course will demonstrate the interdisciplinary nature of environmental problems solving through current readings, classical monographs and films. Students will conduct a system analysis of a household and a local community. This course will not be open to students who take ENST 105. (W).

**ENST 305 Env Instrumentation and Analysis**
3.000 Credits
Prerequisites: ENST 301
This course will survey the parameters which must be measured in order to properly assess the environment. Methods for the analysis of the biophysical as well as the social, psychological, and political environment will be studied. (W).

**ENST 310 Economic Geography**
3.000 Credits
Spatial aspects of the ways people make their living. Discussion of the spatial distribution of resources and wealth at various scales. Introduction of site selection and location analysis. (W).

**ENST 312 Environmental Ethics**
3.000 Credits
Prerequisites: PHIL 100 or PHIL 233 or PHIL 240 * or ENST 105 or ENST 301
The relationship of human beings to the non-human environment raises pressing moral and political issues. This course will use the theories and concepts of philosophical ethics to explore such questions as human obligations to non-human animals; the preservation of wilderness; balancing economic, aesthetic, and spiritual values; and the problems of pollution, urban sprawl, and ecological justice. (F, YR).

**ENST 320 Global Climate Change**
3.000 Credits
This course explores concepts and current thinking on global climate change and environmental impacts. It covers the history of Earth's climate, causes of climate change and current research attempting to forecast change. The biotic, economic, and social implications of climate change are discussed. (AY)

**ENST 325 Environmental Politics**
3.000 Credits
Prerequisites: POL 101
This course will examine the process of policy making on environmental and energy problems at the global level, at the national level, and at the local level. (AY).

**ENST 326 Anth of Health and Environment**
3.000 Credits
Cultural conflicts over pollution, disease etiology, development and natural resources often originate and are played out in local ecosystems. Anthropologists are increasingly becoming involved as researchers, developers, and activists in these cultural strifes. This course reviews the work of environmental and medical anthropologists as well as other critical scholars who unravel the values, meanings and ideologies associated with ecological issues in given localities. Drawing on theoretical advances in critical medical anthropology, environmental anthropology and applied anthropology, the course seeks to improve the knowledge and abilities of student anthropologists in their environmental health work.
ENST 330  Land Use Planning and Mgmt  
4.000 Credits  
Prerequisites: ESCI 275 or (BIOL 130 and GEOL 118)  
Environmental aspects of land use planning, park planning, and site planning. Consideration of soils, groundwater, topography, and sensitive natural features and their role in determining land-use suitability. Examination of the mechanics and effectiveness of the planning process. Lecture and recitation. (AY).

ENST 340  Remote Sensing  
3.000 Credits  
Must be enrolled in one of the following classes:  
Junior  
Senior  
Graduate  
Prerequisites: GEOG 302  
This course explores the use of image interpretation and processing techniques on remote sensor data, with a particular emphasis on environmental and urban applications. The course will cover concepts and foundations of remote sensing, aerial photography and photogrammetry, visual interpretation, characteristics of various sensing systems (e.g., multispectral, thermal, hyperspectral, microwave, lidar), and an introduction to digital image processing techniques.

ENST 351  Environmental Economics  
3.000 Credits  
Prerequisites: ECON 202  
This course examines the economic aspects of pollution problems. Topics covered include the economic theory of externalities, the theory of the commons, the theory of public goods, and the optimum use of depletable natural resources. The role of cost-benefit analysis as an intricate part of the decision-making process will also be thoroughly examined. (AY).

ENST 365  Environmental Psychology  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171  
A survey of the contributions of the behavioral sciences to the understanding and solution of environmental problems that threaten our survival. Insights derived from psychology, anthropology, and computer sciences are discussed. Major topics include overpopulation, overconsumption, *future shock*, cognitive limitations in our understanding of ecological-political systems, and the use of Skinnerian behavior control. (AY).

ENST 385  Environmental Internship  
1.000 TO 9.000 Credits  
Must be enrolled in one of the following classes:  
Junior  
Senior  
Graduate  
A field assignment relating to the student's environmental interests. The student will work in an off-campus government or private business for a prescribed number of hours each week to be arranged by the advisor and employer. May be repeated up to three times. Written permission of instructor.

ENST 390  Topics in Environmental Stds  
1.000 TO 9.000 Credits  
Examination of problems and issues in selected areas of environmental studies. Title listed in the Schedule of Classes will change according to the content. Course may be repeated for credit when specific topics differ.

ENST 395  Sem on Environmental Issues  
1.000 Credits  
Readings, discussions, and presentations which examine current environmental issues. One hour seminar. Written permission of instructor. (YR).

ENST 436  Human Ecology  
3.000 Credits  
Deals with the forms and modes of change of social structure and culture, as affected by interactions with environment, population, and technology. Emphasis is given to territorially based social structures.

ENST 445  Environmental Law  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: (ECON 201 * or ECON 202 *) and ENST 301 *  
A survey of common law theories and analysis of environmental statutes from a functional perspective. The course also includes environmental law aspects of constitutional law, administrative law and criminal law, as well as the public trust doctrine and public lands. Student cannot receive credit for both ENST 350 and ENST/POL 445.

ENST 456  Ecological Economics  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: (ECON 201 * or ECON 202 *) and ENST 301 *  
A review of major theories and issues concerning the relationship between ecological and economic systems. Topics include these questions: What is the purpose of economics activity? How important is the preservation of the natural world compared to the production of economic goods? How do principles of social and intergenerational equity affect the use of resources and choice of goods to be produced? The course utilizes a transdisciplinary approach in the development of new models where conventional economics and ecology alone have been ineffective in addressing questions of sustainability and equity. (AY).

ENST 474  Environmental Education  
2.000 TO 3.000 Credits  
An analysis of environmental education at elementary and secondary levels, particularly stressing the environment as a teaching resource. Community resources as they relate to environmental education are also investigated. (AY).

ENST 483  Justice, Crime and Environment  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
This service-learning course focuses on environmental justice and law. Environmental Justice is defined as the fair treatment of all people with respect to the development, implementation, and enforcement of environmental laws. In the classroom, students learn the theory, history, and enforcement of
environmental laws and regulations in Detroit, Michigan, and nationwide. In a required civic engagement project, students apply their substantive knowledge to solve local environmental problems. Through classroom learning and projects with community organizations, students connect law and justice concerns to Detroit's environmental problems.

**ENST 485  Seminar in Environ Topics**  
2.000 Credits

A seminar course taken during the student's senior year to provide an opportunity for students with diverse environmental interests to interact and synthesize the information and skills acquired during their previous studies. (W).

**ENST 486  Environmental Interpretation**  
2.000 TO 3.000 Credits

Course deals with the interpretation of the environment, its characteristics, and its presentation to school groups as well as to the general public. Intended to acquaint students with a variety of skills and techniques necessary for interpreting the environment to others. Extensive use is made of the UM-Dearborn Environmental Study Area. (AY).

**ENST 487  Comparative Enviro Policy**  
3.000 Credits

Must be enrolled in one of the following classes:  
- Senior  
- Junior

This course explores environmental policy as a result of political processes involving diverse participants and entailing movement through several stages from defining an issue as an environmental problem to placing it on political agenda and then receiving a response at domestic governmental or international levels. This course analyzes environmental issues from a cross-cultural and comparative perspective, with a particular attention given to political institutions, political change, levels of development, political culture, public participation, and international commitments that shape the nature and dynamics of environmental politics and policy in different countries.

**ENST 488  Env Lit & Reps of Nature**  
3.000 Credits

Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 270) and (ENGL 230 or ENGL 200 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

An interdisciplinary study of the ways in which the relationship between "nature" and humankind has been represented in literature and other forms of cultural expression. Emphasis on American and British texts of the 19th centuries, but assigned materials may include readings from other cultures and historical periods.

**ENST 490  Dir Research in Envir Studies**  
1.000 TO 6.000 Credits

This course will provide students with an opportunity to conduct an independent research investigation on topics in environmental studies under the direction of various faculty members. The results will be presented in a paper and public seminar. May be repeated.

**ENST 491  Topics in Environmental St**  
3.000 Credits

The examination of problems and issues in selected areas of environmental studies. The title listed in the Schedule of Classes will change according to the content. The course may be repeated for credit when the specific topic differs. Also offered for graduate credit. (OC).

**ENST 497  Seminar in Environmental Sci**  
1.000 Credits

Readings, discussions and presentation of research in selected areas of study. One hour seminar.

**ENST 498  Independent Study**  
1.000 TO 3.000 Credits

Readings or analytical assignments in accordance with the needs and interests of those enrolled and agreed upon by the student and instructor, which shall not duplicate a formal course offering. Permission of instructor.

**ENST 499  Independent Study**  
1.000 TO 3.000 Credits

Readings or analytical assignments in accordance with the needs and interests of those enrolled and agreed upon by the student and instructor, which shall not duplicate a formal course offering. Permission of instructor.

**Film Studies**

Designed as an interdisciplinary program, the minor provides an intellectually challenging and cross-culturally oriented approach to the study of cinema.

**MINOR OR BGS/LIBS AREA OF FOCUS ONLY**

In order to minor in Film Studies, a student must fulfill the following requirements:

- **Prerequisite**  
  JASS 248: Introduction to Screen Studies

- **Required courses**  
  15 credits in upper-level courses from the list below.

  - JASS 332: Creating the Graphic Novel
  - JASS 336: Film and Music
  - JASS 357: National Cinemas
  - JASS 370: Narratives of Film and Lit
  - JASS 385: Black Cinema
  - JASS 387: Film and Feminisms
  - JASS 398: Independent Study
  - JASS 403: Issues in Cyberspace
  - JASS 406: History & Theory of Documentary
  - JASS 413: Photojournalism
  - JASS 457: American Cinema
  - JASS 467: Script-Writing Workshop
  - JASS 477: Ethnographic Film

**Film Studies (FILM) COURSE OFFERINGS**

Please see Journalism and Screen Studies (JASS) for descriptions of the film studies courses listed above.
French/French Studies
(See also International Studies Major)

UM-Dearborn offers undergraduates two degree programs involving French: International Studies and French Studies. Both are designed to enable majors to take practical advantage of the study of one of the world's leading languages and cultures. As they complete their degree requirements, International and French Studies majors acquire knowledge and skills that prepare them for careers in numerous fields, both in the United States and abroad.

Students who do not major in International Studies or French Studies may wish to choose French as a minor or an area of focus.

FRENCH STUDIES MAJOR

The major in French Studies offers students a thorough training in the language and culture of the more than 200 million people who live in France and other Francophone areas in the world. In so doing, it familiarizes them with a vital and influential tradition in literature and the arts which spans twelve centuries and a language of importance in the realms of business, politics, science and technology.

French Studies recognizes the need to provide today's students with a much broader education in French than that afforded by traditional degrees devoted primarily to literature. Consequently, it requires majors to complete coursework in four general areas: language (including the specialized language of business) culture/civilization, film, as well as literature. For the same reason, French Studies takes as its purview the French-speaking world as a whole. Although it places emphasis on France, the concentration also provides an introduction to the other French-speaking cultures/civilizations, film, as well as literature.

Two additional upper-level French courses 6 hrs

 Majors are encouraged to strengthen their knowledge of French language and culture by participating in any of the approved study-abroad programs.

Cognates .............................................................................................................. 6 hrs
Upper level courses from the following disciplines: AAAS, ANTH, ARTH, COMM, COML, ECON, ENGL, ENST, GEOG, GLOC, HIST, HUM, JASS, LIBS (excluding LIBS 300, 395, 396), MCL, PHIL, POL, RELS, SOC, WGST.

NOTES:
1. FREN 339 and 375 can be used as a literature or civilization/culture requirement, but not both.
2. A maximum of 54 hours in FREN may count in the 120 hours required for graduation.
3. At least 15 of the 24 upper level hours in French must be elected at UM-D.
4. A maximum of 3 credits of HUM 485 internship can be used in the cognate area.

MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in French.

French (FREN) COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 101</td>
<td>Beginning French I</td>
<td>4.000</td>
</tr>
</tbody>
</table>

First course in a two-course elementary French sequence. Listening comprehension, speaking, reading, writing, and culture are emphasized. Course materials promote the use of language to communicate with others and to function in the French-speaking world. (F).
### FREN 102  Beginning French II

0.00 OR 4.000 Credits  
Prerequisites: FREN 101 or FPL 102 or FPL 201 or FPL 202 or FPL 301 or FPL 302  

Second course in the two-course elementary sequence. Continued emphasis on culture and the four skills of listening, speaking, reading, and writing. (W).

### FREN 201  Intermediate French I

0.00 OR 4.000 Credits  
Prerequisites: FREN 201 or FPL 202 or FPL 301 or FPL 302 or FREN 102  

An intermediate language course designed to increase the student's ability to read, speak, and write French. The course will utilize a wide range of reading selections representative of modern French prose as the basis for class discussions and written assignments. A systematic review of grammar and oral exercises should enable the student to make definite progress in conversation and composition. (F).

### FREN 202  Intermediate French II

0.00 OR 4.000 Credits  
Prerequisites: FREN 201 or FPL 202 or FPL 301 or FPL 302  

Continuation of FREN 201. Further readings in modern French prose, extensive practice in conversation and composition. (W).

### FREN 234  French Conversation

1.000 TO 2.000 Credits  
Prerequisites: FREN 102  

Development of conversational skills through discussion of contemporary readings and the use of communicative activities and games. Emphasis will be placed on vocabulary acquisition by students, on improving their pronunciation, and on increasing their overall fluency in French. (S).

### FREN 235  French Conversation and Culture

2.000 Credits  
Prerequisites: FREN 102  

Intensive practice in developing conversational skills through a coordinated program of classroom and field activities in France. Students will read and discuss current materials of various sorts and will perform skits and other oral exercises designed to increase their fluency in French. A series of planned, extracurricular activities (visits to museums and historical monuments, viewing of plays, interviews of average French men) will enable students to profit from direct contact with the French and their culture.

### FREN 290  Topics in French

1.000 TO 3.000 Credits  

Examination of problems and issues in selected areas of French. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

### FREN 301  Advanced Conversation and Comp

3.000 Credits  
Prerequisites: FREN 202 or FPL 301 or FPL 302  

An advanced course in conversation, composition, and syntax. Numerous oral reports and weekly written assignments based on readings from current sources; discussion of a recent French motion picture; translation exercises and the study of specific topics in French grammar. (F).

### FREN 302  Advanced Conversation and Comp

3.000 Credits  
Prerequisites: FREN 301 or FPL 302 or FPL 302.  

Continuation of FREN 301. (W).

### FREN 305  Language of Business

3.000 Credits  
Prerequisites: FREN 301  

A systematic presentation of the vocabulary and conventions of business French. Students will receive extensive training in composing business letters, reports, vitas, and similar texts. They will be exposed to French practices in correspondence, accounting and record keeping. They will also be required to translate various business documents from English to French (and vice versa) and to familiarize themselves with the specialized vocabulary of computers. (OC).

### FREN 306  Cult Intro to French Business

3.000 Credits  
Prerequisites: FREN 301  

An introduction to the practices and organization of the French business world. Students will learn how a typical French firm is structured and how business is normally conducted in France. Special attention will be given to those differences in organization and operation which contrast French businesses with our own. The class will also examine the impact of history and general cultural attitudes on French business practices of today. (OC).

### FREN 308  Advanced Writing

3.000 Credits  
Prerequisites: FREN 301  

Intensive practice in writing expository prose in French. Students will complete a wide variety of writing assignments (resumes, critical analyses, explications de texte, and the like) over the course of the semester. Class sessions will be devoted to the discussion of student papers and technical issues related to effective writing. Students should expect to prepare several drafts of each assignment under the close supervision of the instructor. (OC).

### FREN 330  French Lit: Md Ages-18 Century

3.000 Credits  
Prerequisites: FREN 301  

A survey of French literature through the Enlightenment based on the study of individual masterpieces of principal French authors: Villon, Rabelais, Montaigne, Pascal, Moliere, Racine, Montesquieu, Voltaire, and Rousseau. (OC).

### FREN 331  French Lit: 19th-20th Century

3.000 Credits  
Prerequisites: FREN 301  

The sequel to FREN 330. A survey of French literature from Romanticism to the Theater of the Absurd and the nouveau roman. Writers studied will include Balzac, Stendhal, Baudelaire, Flaubert, Proust, Gide, Camus, Sartre, Beckett, and Sarraute. (OC).

### FREN 332  French Cinema

3.000 Credits  
Prerequisites: FREN 301
UNIVERSITY OF MICHIGAN-DEARBORN

A survey of French films from the experiments of the turn of the century to the trends of the present day. Representative silent films, "classic" and "new-wave" movies of the 1930's and 50's, as well as contemporary productions will be presented in their cultural context and the contributions of major French directors to filmmaking will be highlighted. Attention will also be given to the basic elements of film as a means of expression: camera angle, distance, movement, and editing. (OC).

FREN 334 Workshop in French Theater
3.000 Credits
Prerequisites: FREN 301

This course will provide a brief survey of representative masterpieces of the French theater. Students will be required to read and analyze a number of celebrated plays and then to perform selected scenes from them. (OC).

FREN 336 French Civilization of Past
3.000 Credits
Prerequisites: FREN 301

An introduction to the civilization of France (from the Middle Ages to the 20th Century). This course will examine the social and historical developments and the accomplishments in the arts and literature that have combined to shape the French nation. (OC).

FREN 337 - France in the 20th Century
3.000 Credits
Prerequisites: FREN 301

An introduction to France of the Third, Fourth, and Fifth Republics. This course will examine the major political, social, and economic issues of France of the 20th Century as well as its contributions to literature and the arts. (OC).

FREN 338 France of Today
3.000 Credits
Prerequisites: FREN 301

An exploration of various facets of contemporary French civilization. Although students will consider historical and political developments since World War II, special attention will be given to the values and attitudes of the French, to the contrasting modes of life in Paris and the provinces, and to important forms of popular culture. (OC).

FREN 339 Francophone Lit and Civil
3.000 Credits
Prerequisites: FREN 301

An introduction to twentieth-century award-winning texts from the Caribbean, Canada, North Africa and West Africa. Students will analyze the strategies through which these powerful, dramatic, post-colonial writers address such issues and themes of universal relevance as love and the search for identity, while also expressing the experience and culture realities of his or her own country. Representative authors include Birago Diop, Simone Schwartz-Bart, Arlette Cousseau, Anne Hebert, Roch Carrier, Michel Tremblay, and Tehar Ben Jelloun. (OC).

FREN 375 Parisian Itineraries
3.000 Credits
Must be enrolled in one of the following classes:
  - Senior
  - Sophomore
  - Freshman

Parisian Itineraries follows cultural developments in Paris, and literary responses to the specific nature of urban development in France in the 19th and 20th century in France. Students consider urban planning and expansion in Paris through cultural, historical, social and literary approaches, and analyze the connections between cultural voices and urban progress. The object of this course is thus the lived experience of Parisian urbanization through the various artistic representations.

FREN 385 French Across the Curriculum
1.000 Credits
Prerequisites: FREN 202

Course is attached to an upper-level course in another discipline and taken concurrently with it. Course materials in French are related to the subject matter of the second course and are discussed with a French-are a faculty member. Materials are also integrated into the assignments of the second course. (F,W).

FREN 388 Socio-Ctrl Iss Contemp France
3.000 Credits
Prerequisites: FREN 301

The course concentrates on a series of socio-cultural issues that are debated in France today, as well as on a number contemporary cultural and artistic phenomena. Particular attention is given to discourses on otherness and on the ways in which French cultural production and media constructions have reflected, reinforced, reshaped and, in some instances, contested the country’s past and current dominant ideologies, and identities.

FREN 399 Independent Studies
1.000 TO 3.000 Credits

Readings or analytical assignments in the humanities in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor. May be repeated for a maximum of 6 credit hours. (F,W).

FREN 408 Writing and Translating
3.000 Credits
Prerequisites: FREN 301 and FREN 302

A course designed to increase the written fluency of students who have already assimilated the advanced grammatical concepts introduced in the 301-302 sequence. Students will prepare weekly written assignments and will translate and analyze passages written in various styles. (OC).

FREN 490 Topics in French
1.000 TO 3.000 Credits
Prerequisites: FREN 301

Examination of problems and issues in selected areas of French. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

General Studies
(see Bachelor of General Studies: Two plus Two requirements)
Geography

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

In order to minor or complete the area of focus in geography, a student must fulfill the following requirements:

Prerequisite
One course from physical geography: GEOG 203, 204; or GEOL 118 AND one course from human geography: GEOG 201, 205, or 206.

Required courses
12 credit hours in upper level courses including GEOG 302 and 9 credit hours from any of the following: Physical Geography courses: GEOG 320; GEOL 350, 377; ESCI 301, 375; Human Geography courses: ECON 483; GEOG 300, 310; HIST 3695; POL 323; Regional Geography courses: GEOG 307, 390D; Geospatial Techniques courses: GEOG 305; GEOL 340, 440; Other courses: GEOG 390, 399

Geography (GEOG)

COURSE OFFERINGS

GEOG 201 Cultural Geography
3.000 Credits
Overview of the major components of culture such as language, religion, agriculture, settlement patterns, and related landscape features in a spatial context. Emphasis on how various cultures perceive and interact with the environment. (F).

GEOG 203 Weather and Climate
3.000 Credits
The controls and conditions of Earth's weather and climate including atmospheric circulation, precipitation processes, severe weather, climatic regions, and climatic change. (F).

GEOG 204 Landforms
3.000 Credits
Processes and agents that shape the landscapes and landforms of the Earth's surface. The discussion of landforms is divided into two parts: (1) constructive processes and their spatial distribution and (2) gradational processes and their spatial distribution. (W).

GEOG 205 Geography of the United States
3.000 Credits
A regional analysis of the United States that stresses the difference in the physical elements of landscapes that explain differences in economic development, cultural attainment, and land use and which, in turn, motivate regional interdependencies and interrelationships. (W).

GEOG 206 World Regional Geography
3.000 Credits
World Regional Geography includes a systematic study of the world’s geographic realms and regions, including Europe, Russia, Australia-New Zealand, East Asia, South Asia, Southwest Asia, N Africa, Sub-Saharan Africa, Middle and South America. Geographic concepts, such as map reading and spatial analysis, are first introduced. Then, the world is classified into geographic realms and regions using both physical and social criteria. Each region results from a unique interaction between the human societies and the physical environment. The physical, cultural, political, economic and social features of each region are studied, along with any special regional concerns or problems.

GEOG 300 Urban Geography
3.000 Credits
The geography of human settlement and urbanization. Particular emphasis is placed on human transformation of the physical environment, and resource use throughout history from ancient civilizations to modern megalopolis. Universal urban challenges such as sprawl, pollution, congestion, crime, poverty, etc., are addressed.

GEOG 302 Mapping Our World
3.000 Credits
Mapping our World provides an introduction to geospatial techniques and the important roles spatial data play in today’s world. This course introduces the students to basic concepts of geographic information systems, remote sensing and cartography. A focus of the course is on map analysis and map design.

GEOG 305 Intro to GIS
4.000 Credits
Prerequisites: GEOG 302
Co-requisites: GEOG 305L
The basic elements of geographic information systems, map interpretation and map design. Principles and methods of spatial data collection, analysis, and display are introduced. (W)

GEOG 307 Geography of Western Europe
3.000 Credits
An analysis of the strengths, weaknesses, interrelationships, and interdependence of selected countries of this economically advanced region. (OC).

GEOG 310 Economic Geography
3.000 Credits
Spatial aspects of the ways people make their living. Discussion of the spatial distribution of resources and wealth at various scales. Introduction of site selection and location analysis.

GEOG 315 Political Geography
3.000 Credits
The spatial dimensions of political activity from the local to the global scale. Themes include: control of territory, relations among political entities, and political ideology.

GEOG 320 Global Climate Change
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
This course explores concepts and current thinking on global climate change and environmental impacts. It covers the history of Earth's climate, causes of climate change and current research attempting to forecast change. The biotic, economic, and social implications of climate change are discussed. (AY)

**GEOG 390  Topics in Geography**  
1.000 TO 3.000 Credits

Selected topics to be announced. (OC).

**GEOG 399  Independent Study**  
1.000 TO 3.000 Credits

Readings or analytical assignments in accordance with the needs and interests of those enrolled and agreed upon by the student and the advising instructor.

**Geology**  
(minor only, see Earth Science for major)

**MINOR OR BGS/LIBS AREA OF FOCUS ONLY**

A minor or area of focus consists of 12 hours of upper-level credit in geology.

**Geology (GEOL)**  
**COURSE OFFERINGS**

**GEOL 110  Urban Geology**  
3.000 Credits

The study of how the geosciences can be used to solve community-based environmental problems. Taught within the context of the Rouge River watershed, one of the most urbanized watersheds in the country, the focus of this 3-week course is water and watersheds. Classroom lectures are combined with extensive field work, field trips and guest speakers. Taught as a summer II mini course in July. Open only to high school juniors and seniors participating in the Geosciences Research Institute.

**GEOL 118  Physical Geology**  
4.000 Credits  
Co-requisites: GEOL 118L

An introduction to the study of geologic processes at work in the earth's interior and on its surface. Rocks and minerals, the origin and evolution of the continents, and the gradual and catastrophic processes that shape surface and bedrock features. Three hours lecture, three hours laboratory. (W).

**GEOL 218  Historical Geology**  
4.000 Credits  
Co-requisites: GEOL 218L

A generalized study of the history of the earth, with emphasis on the fossil record of life development, the stratigraphic sequence of deposits and paleogeography. Laboratory work will include the study of geologic and topographic maps and fossils of prominent invertebrate phyla. (YR).

**GEOL 305  Intro to GIS**  
4.000 Credits  
Prerequisites: GEOG 302  
Co-requisites: GEOL 305L

The basic elements of geographic information systems, map interpretation and map design. Principles and methods of spatial data collection, analysis, and display are introduced. (W)

**GEOL 332  Hazardous Waste Management**  
3.000 Credits  
Prerequisites: GEOL 118 or ESCI 275

Environmental problems associated with solid and hazardous waste. Regulations governing the generation, transport, and disposal of hazardous waste. Waste management techniques, including reduction, reuse, recycling, treatment, incineration, and land disposal. Three hours lecture.

**GEOL 340  Remote Sensing**  
3.000 Credits  
Prerequisites: GEOG 302

This course explores the use of image interpretation and processing techniques on remote sensor data, with a particular emphasis on environmental and urban applications. The course will cover concepts and foundations of remote sensing, aerial photography and photogrammetry, visual interpretation, characteristics of various sensing systems (e.g., multispectral, thermal, hyperspectral, microwave, lidar), and an introduction to digital image processing techniques.

**GEOL 342  Physical Oceanography**  
3.000 Credits

An introduction to physical and chemical oceanography, fundamental marine processes and plate tectonics. Interactions between the oceans and atmosphere and the effect of greenhouse gases on the oceans and the role of physical processes in global climate change will be studied.

**GEOL 350  Geomorphology**  
4.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Senior  
Junior  
Prerequisites: GEOL 118 or (GEOG 203 and GEOG 204)

This introductory course is designed to familiarize students with the fundamentals of river behavior and the general principles in fluvial morphology, sedimentation, and hydraulics and stream bank erosion. Applications of these principles are shown utilizing a stream classification system. Problem solving techniques for watershed management, stream restoration, non-point source pollution and integration of ecosystem concepts in watershed management are presented. A combination of both lecture and field applications are provided. (F, AY)

**GEOL 370  Environmental Geology**  
3.000 Credits  
Prerequisites: GEOL 118

Interactions between people and the physical environment. Geological hazards and natural processes, such as earthquakes, volcanism, floods, landslides, and coastal processes. Relationships between geology and environmental health, including chronic disease, water use and pollution, waste disposal, mineral resources, and energy use. Three hours lecture. (AY).
GEOL 372 Energy Resources
3.000 Credits
Prerequisites: GEOL 118 or ESCI 275 or ESCI 301
Origin and development of fossil fuels (petroleum, coal, natural gas) and of radioactive ores used in nuclear power. Renewable and alternative energy sources, including hydro, solar, wind, biomass, and geothermal power. Environmental impacts of energy use. Three hours lecture. (AY).

GEOL 375 Groundwater Hydrology
4.000 Credits
Prerequisites: GEOL 118
Co-requisites: GEOL 375L

GEOL 377 Field Methods
1.000 Credits
Prerequisites: GEOL 118
A week-long intensive field course dealing with geological field methods and analysis of geological terrains. Use of Brunton compass and clinometer, recognition and identification of geological structures, preparation and interpretation of geological maps, and use of aerial photographs. May be repeated for credit when destination varies. Organizational meeting followed by one-week trip. (YR).

GEOL 390 Current Topics in Geology
1.000 TO 3.000 Credits
Prerequisites: GEOL 118
A course in special topics current to the field of geology. Topics and format for the course may vary. See current Schedule of Classes. (OC).

GEOL 440 Advanced GIS Applications
3.000 Credits
Prerequisites: GEOL 305
This course offers an opportunity for students with a background in the fundamentals of geographic information systems (GIS) to apply the analytical capabilities of geospatial technology to model real-world situations in support of decision making. Particular emphasis is given to data development and management, spatial and statistical analyses, customization, and effective visualization.

GEOL 475 Contaminant Hydrogeology
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: GEOL 375
Advanced lecture treatment of selected topics in subsurface hydrology including contaminant transport and fate of organic and inorganic constituents, aquifer test analysis, and the use of modeling in the analysis of selected case histories. (AY).

GEOL 490 Advanced Topics in Geology
3.000 Credits
Current topics from various areas in pure and applied geosciences will be reported upon by students, faculty and guest speakers. May include extended field trips. (OC).

GEOL 498 Independent Study in Geology
1.000 TO 3.000 Credits
Library research and independent study performed under the guidance of a faculty member. Permission of instructor. (F,W,S).

GEOL 499 Laboratory and Field Research
1.000 TO 3.000 Credits
Directed laboratory or field research performed under the guidance of a faculty member. Four to twelve hours laboratory or field study. Permission of instructor. (F,W,S).

Geospatial Analysis and Mapping (GAM) Certificate
The Certificate in GAM provides students with the experience and knowledge in the theory and application of GAM and remote sensing. Students learn the basic components of GAM and spatial data, understand problems that arise in the data acquisition and analysis, and develop a sound background in cartographic principles. Many students could increase their marketability with a certificate in GAM. This includes (but is not limited to) careers in public health, criminal justice, sociology, economics, social and natural science education, computer engineering, Earth and environmental science or studies, urban and regional studies, and anthropology/archeology.

Required core (3 courses) .................................................. 10 hrs (courses must be taken in order):
1. GEOG302 Mapping Our World
2. ESCI/GEOG/GEOL305 Introduction to GIS
3. GEOL440 Advanced GIS Applications
Electives (Choose from) ...................................................... 6 hrs
• ENST/GEOL340 Remote Sensing
• GEOL 498 Independent Study
• GEOL 499 Laboratory and Field Research
• ITM310 Information Systems and ITM 311 Management Info Systems Lab
• ITM321 Database Systems I

NOTES REGARDING THE GAM CERTIFICATE PROGRAM:
1. A minimum of 2.5 cumulative GPA and sophomore standing are required for admission to the program.
2. A maximum of two courses (totaling up to 7 credit hours) used toward a student’s major may count toward the minimum 16 credits required for the program.
3. A maximum of 7 credit hours of transfer coursework may be counted (upon approval of the program director) toward the minimum 16 credits required for the program.
4. 498 (Independent Study) credits can be taken in any discipline but to count toward the certificate, it must be approved by GAM program director.
5. 499 (Laboratory and Field Research) credits can be taken in any discipline but to count toward the certificate, it must be approved by GAM program director.
6. A minimum 2.0 GPA in the UM-Dearborn courses counting toward the GAM certificate is required at the time of graduation and/or posting of the certificate.
MINOR OR BGS/LIBS AREA OF FOCUS ONLY

A minor or area of focus consists of 12 hours of upper-level credit in German.

German (GER)

COURSE OFFERINGS

GER 101  Beginning German I
First course in a two-course elementary German sequence. Listening comprehension, speaking, reading, writing, and culture are emphasized. Course materials promote the use of language to communicate with others and to function in the German-speaking world. (F).

GER 102  Beginning German II
0.000 OR 4.000 Credits
Prerequisites: GER 101 or GPL 102 or GPL 201 or GPL 202 or GPL 301 or GPL 302
Second course in the two-course elementary sequence. Continued emphasis on culture and the four skills of listening, speaking, reading, and writing. (W).

GER 105  Conversational German
2.000 Credits
The course is designed to help students develop basic oral communication skills in German. Emphasis is on a maximum use of spoken German in real or simulated everyday situations during each class period. The essentials for grammar will be taught through patterns rather than analytical presentation. May not be used to fulfill the symbolic language requirement.

GER 201  Intermediate German I
4.000 Credits
Prerequisites: GER 102 or GPL 201 or GPL 202 or GPL 301 or GPL 302
An intermediate language course in speaking, reading, and writing German. Class assignments and discussions will be based on a wide variety of material ranging from German language films to anthologies of German prose. There will be a review of grammar, but emphasis is on reading and discussion. (F).

GER 202  Intermediate German II
4.000 Credits
Prerequisites: GER 201 or GPL 202 or GPL 301 or GPL 302
A continuation of GER 201, with an even greater emphasis on reading and speaking. (W).

GER 234  German Conversation
1.000 TO 2.000 Credits
Prerequisites: GER 102
Development of conversational skills through discussion of contemporary readings and the use of communicative activities and games. Emphasis will be placed on vocabulary acquisition by students, on improving their pronunciation, and on increasing their overall fluency in German. (OC).

GER 301  Adv Conversation and Comp
3.000 Credits
Prerequisites: GER 202 or GPL 301 or GPL 302
Advanced conversation and composition primarily based on current sources. Frequent essays and oral reports in German. (F).

GER 302  Adv Conversation and Comp
3.000 Credits
Prerequisites: GER 301 or GPL 302
Advanced conversation and composition primarily based on current sources. Frequent essays and oral reports in German. (W).

GER 305  Language of Business
3.000 Credits
Prerequisites: GER 301
The course will familiarize the student with the general vocabulary and form of business correspondence in German, general business conventions in the German-speaking countries as well as with some major specific areas of business such as banking, auto, chemical, tourism, etc. (AY).

GER 306  Cultural Intro to German Bus
3.000 Credits
Prerequisites: GER 301
An in-depth study of current specific business practices as carried on between English and German speaking businesses and agencies. Learning to understand the German's business strategies and business attitudes, the focus is on developing cultural sensitivity towards the needs and national practices of German business. Liaison will be established with German/American businesses in this area. Can be taken with or without GER 305. (OC)

GER 371  Germ Lit: Classic and Romantic
3.000 Credits
Prerequisites: GER 301
Readings include works by Lessing, Schiller, Goethe, Meist, E.T.A. Hoffmann, and Novalis. Analyses in lectures, discussion and writing will try to illuminate the works themselves and the world views of their age. (AY).

GER 372  Introduction to German Lit
3.000 Credits
Prerequisites: GER 301
A survey of German Literature from 19th century realism to the contemporary post-modernism and neo-realism. Writers studied will include both canonical and non-canonical authors, for example, Gerhard Hauptmann, Marie-Luise Fleisser, Georg Kaiser, Irmgard Keun, Bertolt Brecht, Anna Seghers, Ilse Aichinger, and Christa Wolf. The class will be a combination of lecture and discussion with a substantial writing component. (AY).

GER 374  The History of German Cinema
3.000 Credits
Prerequisites: GER 301
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Colleges:
No College Designated
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
Prerequisites: GER 301
In this course, we explore the history of German cinema through primary and secondary texts on films from the silent period through unification. Concomitantly, we will read a Mary Fulbrook’s history of Germany in order to place these films within the proper historical contexts and in order to enable us to examine the ways in which German history has insinuated itself in all film genres. The film section highlights the major movement in German cinema since its inception and gives particular attention to the representations of German history and the ways in which German history makes itself apparent in a variety of genres. The class will also consider the interactions between German cinema and Hollywood through clips highlighted in lectures and student presentations. (OC).

GER 376 Contemporary German Cultures
3.000 Credits
Prerequisites: GER 301

An exploration of the assumptions which underlie everyday life in German-speaking countries (Federal Republic of Germany, Austria, Switzerland). Topics include social intercourse, school systems, medicine, citizens’ understanding of nation, and individuals' relationship to space. (YR).

GER 377 German Culture & Civilization
3.000 Credits
Prerequisites: GER 301

An introduction to the civilization of the German-speaking countries of Europe from the Middle Ages to the 20th Century. The course examines the arts, history, culture, and institutions that have shaped the Germanic societies.

GER 380 Praktikum
1.000 Credits
Prerequisites: GER 301

This course will be offered in conjunction with a 300- or 400-level German literature, film, or cultural course in translation taught by a member of the German faculty. The one-credit course will be conducted entirely in German. Students will develop their language skills dealing with the topics of the course in translation. They will also be required to read related texts in German. Students who successfully complete the Praktikum and the corresponding German in translation course can receive four credits of German. The topics will vary depending on the English language content course. Students must be concurrently registered in appropriate 300- or 400-level courses taught by a German instructor. (OC).

GER 385 German Across the Curriculum
1.000 Credits
Prerequisites: GER 202

Course is attached to an upper-level course in another discipline and taken concurrently with it. Course materials in German are related to the subject matter of the second course and are discussed with a German-area faculty member. Materials are also integrated into the assignments of the second course. (F,W).

GER 390 Topics in German
3.000 Credits

Examination of problems and issues in selected areas of German. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

GER 398 Ind Studies in German Lit
1.000 TO 3.000 Credits
Readings or analytical assignments in German selected in accordance with the needs and interests of those enrolled. (F,W).

GER 399 Ind Studies in German Lit
1.000 TO 3.000 Credits
Readings or analytical assignments in German selected in accordance with the needs and interests of those enrolled. (F,W).

GER 490 Topics in German Lit and Civ
3.000 TO 4.000 Credits
Examination of problems and issues in selected areas of German studies. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

GER 499 Adv Individual Proj in German
1.000 TO 4.000 Credits
Must be enrolled in one of the following classes:
Senior
Graduate

Advanced individual study project in German language, literature, or civilization may be pursued under the direction of a faculty supervisor. (OC).

Global Cultures

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

The minor or focus area in Global Cultures helps students understand global systems and processes in different world regions. Deeper understanding of global change and the interdependence of the United States with the rest of the world is important to students who wish to be well informed about the contemporary world and prepared for jobs that are affected by global dynamics.

A minor in Global Cultures provides a useful complement to students majoring in a number of different areas in any of the four colleges on campus. Students wishing to study or work abroad, students working with populations from different parts of the world, and students simply wishing to expand their horizons to a more global scale, will all benefit from combining their area of study with the Global Cultures minor.

A minor or area of focus consists of 15 hours of upper-level credits from the following:
Core Area I: Choose one course from: GLOC 301 or COMM 340
Core Area II: Choose four courses from at least two groups:
Group 1: Global Mediated Cultures: ANTH 320, 373, 374, 425, 440; COMM 366, 430, 455, 481; GEOG 302; HIST 321, 322, 323, 326, 336, 362, 381, 3511; JASS 381, 387; LING 484; MCL 353, 401.
Group 2: Gender and Multicultural Issues: ANTH 320, 373, 374, 425, 440, 455; COML 355; COMM 430, 455, 481; ENGL 445; GEOG 310, 315; GLOC 325; HIST 321, 322, 323, 326, 336, 338, 362, 381, 3511; HUM 433; JASS 381; LIBS 364; MCL 401; POL 350, 371, 385, 473; SOC 402, 490G; WGST 408.
Group 3: Migration and Diasporas: AAAS 390G, 490G, 491C; AAST 381; ANTH 455; COML 355; ENGL 445; GEOG 310, 315; GLOC 325; JASS 381; LIBS 364; MCL 455; POL 350, 371, 385, 473; SOC 402, 408, 490G.

Group 4: American Studies in the Global Age: BA 400; COMM 306, 366; COMP 327, 390, ECON 351; ENST 300, 320; EXPS 410; HIST 384, 3632; IB 486; LING 383, 484; MCL 455; MKT 457; SOC 460.

NOTE:
1. The same course cannot be used in more than one group.
2. Students studying a foreign language can include up to two of the following upper level courses in the four courses required for Core Area II (however, as noted above, courses from at least two different groups 1-4 above must be included as well)
   ARBC 305, 331, 332, 335, 350, 351
   GER 305, 306, 374, 376, 377, 390, 490
   SPAN 305, 356, 357, 358, 450, 465

Global Cultures (GLOC)
COURSE OFFERINGS

GLOC 301 Intro to Global Cultures
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior

The course introduces students to the various concepts and notions attached to the phenomenon known as globalization from several disciplinary approaches including history, political science, economic, cultural geography, environmental sciences, and anthropology. It, then, delves into an in-depth examination of globalization and its ideologies, particularly the consensus as well as the controversies it engenders. The course particularly focuses on the relation between globalization and culture.

GLOC 325 Political Islam
3.000 Credits
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior

This course is designed as an introduction to the main issues and themes in the study of political Islam and Muslim Politics, providing a broad overview of the pertinent key concepts and issues. It provides a historical approach to the study of political Islam, and touches upon the nineteenth century Islamic revivalism. It also explores diversity in contemporary Islamic thought and global Islamist movements.

Greek
(not field of concentration, see Modern and Classical Languages)

Health Policy Studies

The study of social factors and their relationship to the health care system has become increasingly important in recent decades. It is now widely accepted that understanding the social dimensions of health, illnesses, and the health care system is crucial for all the health-related professions and for an informed consumer citizenry as well.

In recognition of its importance, the UM-Dearborn offers a Bachelor of Arts major in Health Policy Studies. This program provides future health professionals with a strong behavioral and social science orientation but also draws on resources in humanities, management, education and engineering. Students study important perspectives that enable them to broaden and deepen their understanding of health care and health systems. The objective is to provide students with analytic frames of reference, as well as research and evaluation approaches that illuminate issues and provide a good basis for approaching problems the health care delivery field. These include the economics and politics of health care delivery, sociological perspectives, cross-cultural comparisons of health care systems, ethical considerations, computer applications, and practical work in aspects of the American system. Much of the course work is developed around a policy orientation.

Students participate in undergraduate coursework that prepares them for health-related work, strengthens their position for admission to graduate programs, and enhances professional socialization. This program is intended for students interested in health services administration, health policy and planning and the health professions such as medicine, dentistry and nursing.

Health Policy Studies (HPS) is not only a major, it is also available as a minor and as an area of focus for the Bachelor of General Studies (BGS) and the Bachelor of Arts in Liberal Studies (LIBS).

JOINT PROGRAMS WITH COMMUNITY COLLEGE DEGREES IN ALLIED HEALTH AND NURSING

Students who have completed an Associate Degree program from an accredited community college in Nursing (RN) or Allied Health (including, inter alia, Health Information Technology, Health Services Manager, Medical Assistant, Pharmacy Technician, Physical Therapist Assistant, Radiography Technician, Respiratory Therapy Assistant, Surgical Technology, and Diagnostic Medical Sonographer), with an overall GPA of 2.5 or higher, may apply for admission to Health Policy Studies through the joint program. Students who have been accepted will be able to transfer up to 62 credit hours of their Associate’s Degree program toward an AB in Health Policy Studies.

Students transferring into HPS under the joint program will have to complete distribution requirements, including prerequisites to the major, c major requirements and an HPS track, as set forth in the next sections. The transferred allied health and nursing courses may only be used for the HPS bachelor’s degree; that is, a student who comes to UM-Dearborn through the joint program, but subsequently changes majors from HPS will lose many of the 62 transferred credit hours, retaining only those course credits that would otherwise transfer to UM-Dearborn.
PREREQUISITES TO THE MAJOR

The following courses fulfill distribution requirements as well as serve as prerequisite courses for certain HPS core courses.

SOC 200 or SOC 201  
ECON 2001 or 201  
Any 100 or 200 level PHIL course (PHIL 240 preferred)

MAJOR REQUIREMENTS

The Bachelor of Arts in Health Policy Studies includes three components of requirements: CASL General Education Distribution Requirements (approximately 42 credit hours—HPS students are required to take 6 credit hours in the Behavioral and Social Analysis Area of Inquiry, instead of the usual 9 hours) within which certain prerequisites are taken; Health Policy Studies Core Courses (31 hours) and one of several tracks (15 hours). The degree, like other CASL degrees, requires a minimum of 120 hours, 48 of which are upper division.

Health Policy Studies Core

All HPS majors take 31 hours of core courses. HPS 440 Medical Sociology, should be taken first as it is intended as a gateway course to Health Policy Studies. HPS 410 Social Research Methods, should also be taken early on, as it shows students how to read scientific articles and familiarizes students with basic statistics. HPS 402 Health Policy Studies Senior Seminar is a capstone course for the major, bringing together the various issues raised in the program and looking at both the past and the likely future of the health care system, hence students should enroll for this course after they have taken most of the other HPS courses. HPS 401 Health Policy Studies Internship should be taken in the senior year.

Required Core courses

HPS 440 Medical Sociology  
HPS 410 Social Research Methods  
HPS 364 Health Policy and Administration  
HPS 442 Medical Ethics  
HPS 456 Health Care and the Law  
HPS 403 Medical Information Systems  
HPS 404 Financing the Health and Medical Systems  
OR (by permission of the HPS Director by petition)  
ECON 355 Economics of the Medical Sector

One course from the following group of three courses  
HPS 448 Comparative Health Care Systems  
OR  
ANTH 430 Medical Anthropology  
OR  
PSYC 455 Health Psychology  
HPS 401 Internship  
OR (by permission of the HPS Director by petition)  
HPS 405 Administrative Culture and Representation in Health and Human Services  
HPS 402 Health Policy Studies Senior Seminar

Health Policy Studies Tracks

All HPS majors take a 12 credit hour track. These tracks provide training in areas directly applicable to careers in health care services. Increased public interest in the American health care system has created a demand for administrators in hospitals, neighborhood clinics, long-term care facilities, group practices, ambulatory facilities, managed care entities such as health maintenance organizations (HMO) and preferred provider organizations. Employment in such organizations may require specialized training in management and the social and behavioral sciences.

Students with an eye toward the occupations within these organizations will find an optimal combination of background and skill through completing one of the tracks, below, and thus improve their chances of working successfully in the health care field or enhance their chances of admission to graduate programs.

Some of the courses in the tracks within the College of Business require additional prerequisites, such as accounting courses, ACC 298 and ACC 299; or Principles of Microeconomics, ECON 202; or ITM or CIS introductory courses. Other tracks also include courses that have prerequisites, such as CHEM 225 or BIOL 140.

Health Planning Track

Four courses from the following list  
ANTH 415 Nutrition and Human Development  
ANTH 430 Medical Anthropology  
BIOL 380 Epidemiology  
BIOL 390 Topics (when applicable to health planning)  
CHEM 352 Introduction to Toxicology  
HPS 405 Administrative Culture and Representation in Health and Human Services  
HPS 412 Principles of Epidemiology  
IMSE 334 Organization of Hospital Systems  
POL 311 Interest Groups  
POL 312 Legislative Process  
POL 360 American Policy Processes  
PSYC 412 Psychology of Aging  
PSYC 455 Health Psychology  
SOC 350 Poverty and Inequality  
SOC 422 Structure of American Society  
SOC 423 American Social Classes  
SOC 426 Society and Aging  
SOC 450 Political Sociology  
SOC 483 Images of Organizations

Health Behavior and Health Education Track

Four courses from the following list  
ANTH 340 Race and Evolution  
ANTH 415 Nutrition and Human Development  
ANTH 430 Medical Anthropology  
BIOL 380 Epidemiology  
EDC 300 Educational Psychology  
HPS 405 Administrative Culture and Representation in Health and Human Services  
HPS 412 Principles of Epidemiology  
HPS 430 Fundamentals of Health Behavior and Health Education  
HPS 475 Diversity Issues in Mental Health  
SOC 447 Family Violence  
PSYC 4725 Motivation and Behavior  
No more than one from the following three courses  
PSYC 300 Life Span Developmental Psychology  
PSYC 302 Psychology of Child Development  
PSYC 412 Psychology of Aging
Information Systems Track

ITM 310 Information Systems in Management
AND
ITM 311 Mgmt Information System Lab
ITM 321 Database Systems I
ITM 331 Information Systems Development
ITM 351 Networking and Collaborative Computing

Human Resources Track

Four courses from the following list:
HRM 305 Human Resource Policy and Administration
HRM 406 Staffing, Training and Development
HRM 407 Compensation and Performance Management
HRM 408 Management-Union Relations
LE 452 The Legal Environment of Business
OB 354 Behavior in Organizations
OB 401 Management Skills Development
OB 402 Organizational Change and Development
OB 485 Seminar: Organizational Behavior

Marketing Track

Four courses from the following list:
ENT 400 Introduction to Entrepreneurship
LE 452 The Legal Environment of Business
MKT 352 Marketing Principles and Policies
MKT 382 Consumer Behavior
MKT 402 Marketing Management
MKT 436 Business to Business Marketing
MKT 454 Marketing Research
MKT 456 Advertising and Sales Promotion
OR
MKT 458 Communications Strategy and New Media

Finance Track

Four courses from the following list:
FIN 401 Corporate Finance
FIN 402 Advanced Corporate Finance
FIN 407 Investment Fundamentals
FIN 445 Corporate Financial Models and Applications
FIN 484 Seminar: Financial Management
LE 452 The Legal Environment of Business

Individualized Track

Students with special interests can design their own tracks in conjunction with the HPS Program Director by petition. Individualized tracks have included gerontology, medical social work, and organizational behavior.

NOTES:

1. The same courses cannot satisfy both major and minor requirements.
2. The same courses cannot be used to satisfy both HPS core and track requirements.
3. The same course cannot be used in more than one track.
4. Upper level courses, particularly in finance, information systems, and health behavior and education tracks, may require additional prerequisites.
5. Students not enrolled in the BBA program (in the College of Business) cannot elect and/or transfer more than 30 credits of coursework in disciplines offered by the College of Business.

Health Policy Studies Minor Or BGS/LIBS Area Of Focus

The Health Policy Studies Program offers a specialization called Health Administration for the BGS major. Please see the CASL Advising website for the specific requirements for this program (http://www.casl.umd.umich.edu/casl-advising/).

The minor or area of focus in Health Policy Studies consists of 15 credit hours of upper level HPS courses (excluding HPS 498 and 499). It is recommended that the minor or area of focus include HPS 440, Medical Sociology and, at a minimum, either HPS 456 Health Care and the Law or HPS 442 Medical Ethics.

Premedical students should consider a minor in Health Policy Studies. The International Organization of Medical Sciences Conference of Medical Education addressed a number of issues, including the question of premedical education. The Conference emphasized the need for colleges to offer courses in the social and behavioral sciences so that future physicians would develop an understanding of the larger health care system and the social factors that influence health and illness. Since that time, other national organizations have continued to recommend that premedical students should take courses in the social and behavioral sciences that have a focus on the health care system and on the experience of health and illness. HPS offers an ideal set of courses that may be taken as a minor for a student planning on attending medical school. Students should contact the HPS Program Director to design a minor that would provide the breadth and depth of a social and behavioral science emphasis related to the delivery of medical care.

Health Policy Studies (HPS)

COURSE OFFERINGS

HPS 336 Perspectives in Women's Health
3.000 Credits
May not be enrolled in one of the following Classes:
Freshman

Topic: Perspectives in Women's Health. This course examines women's health issues across the human lifespan, using feminist and sociocultural perspectives. Topics to be explored include the social construction of women's sexuality, reproductive options, health care alternatives and risk for physical and mental illness. Attention to the historical, economic, and cultural factors that influence the physical and psychological well-being of women is an underlying theme. (F,W,Y)

HPS 354 Health Policy and Admin
3.000 Credits
A survey of the structure and processes of health administration in America, including analysis of current issues in health policy. (F, W, S).

HPS 390 Topics in Health Policy Stds
3.000 Credits
Special topics course taught periodically. (F,W,S)

HPS 401 Health Pol Studies Internship
3.000 TO 6.000 Credits
Must be enrolled in one of the following classes:
Senior

A practical experience; volunteering is done in a health care delivery setting combined with a support seminar to develop an understanding of health care system issues and problems.
HPS 402  HPS Senior Seminar  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Focus on current issues and practical problems in health care organization, delivery, and financing. Use of the case method (where appropriate) to demonstrate and discuss real problems and approaches in functioning health care institutions in Southeastern Michigan. Taught primarily from the point of view of individuals responsible for administering or advising such institutions. (F,W,S).

HPS 403  Medical Information Systems  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Freshman  
Medical Information Systems deals with how information is created, stored, and used in health care settings. Areas of interest for this course include fundamentals of computers and data management, medical information documentation in the form of paper and electronic medical records, health data privacy issues, disease classification and scoring systems, quality assurance in health care delivery, commonly used health care statistics, reimbursement methodologies, health care monitoring by internal processes and external review agencies, and vital reimbursement methodologies, health care delivery, commonly used health care statistics, reimbursement methodologies, health care monitoring by internal processes and external review agencies, and vital 

HPS 404  Financing Health & Medical Sys  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: ECON 201  
The American health care system faces two problems: access to health services and high and rising costs. This course looks at the problems of uninsured citizens as well as the strains placed on health care facilities in providing services for them. Europeans have dealt with problems of access and cost controls through universal health care coverage and the course takes up various models in use today. The course also looks at American health insurance and "managed care" programs such as HMOs and PPOs as methods of providing health coverage as well as controlling costs. The course introduces students to services provided by the government including Medicare, Medicaid and State Children's Health Insurance Program (SCHIP). Students will learn the basics of creating a budget under constraints such as contractual limitations and Diagnosis-Related Groups (DRGs). Offered once a year, ordinarily in the Winter semester. Students cannot receive credit for more than one of the following: HPS 404, HPS 451, HPS 504, HPS 551, or PADM 451.

HPS 405  Healthcare Administration  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: HPS 440  
This course introduces students to administrative models and skills that can be used at a supervisory level. These conceptions include strategic planning, marketing, organizational communications, quality assurance, project management and team skills, supervision and evaluation, conflict resolution and office cultures and politics. A critical and historical perspective is used to understand the origins and meanings of these conceptions and the extent to which they correspond with the service mentality of health and human services. Applications to the health and human services will be central to the course.

HPS 410  Quantitative Research  
4.000 Credits  
Prerequisites: SOC 200 or 201  
An introduction to methods of data collection and analysis. Elementary statistics data are analyzed using computerized statistics programs. A discussion of research design and the philosophy of social science is also included. Students cannot receive credit for both HPS 410 and HPS 510. (F,W,S).

HPS 412  Principles of Epidemiology  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Post-baccalaureate NCFD  
Graduate  
Prerequisites: (SOC 410 or HPS 410 or CRJ 410)  
The study of the frequency and distribution, as well as the causes and control, of disease in human populations. Using data analysis tools, one can identify causes of disease and the effects of prevention and treatment. This course is an application of research design to determine the extent to which environment (toxins, for instance), heredity, childhood development, and lifestyle influence morbidity and mortality rates.

HPS 430  Health Behavior & Health Educ  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: ECON 201  
This course provides an overview of social and behavioral science theories that guide the development of health education and promotion interventions aimed at preventing, reducing, and eliminating public health problems. Part one of the course describes the relationship between behavior and health, through a review of several current health problems faced by people in the United States. Part two presents a survey of health behavior theories ranging from those aimed at individual behavioral change to community health education promotions. The final part of the course looks at the application of theory to real-world health promotion and education interventions. Students will learn how social and behavioral theory informs intervention design, implementation, and evaluation.

HPS 440  Medical Sociology  
3.000 Credits  
Prerequisites: SOC 200 or 201  
An analysis of health and illness behavior from the point of view of the consumer, as well as medical professionals, the structure, strengths and weaknesses of the medical care delivery system in the U.S.; the impact of culture and personality on illness behavior; and a study of the institution of medicine and activities of health care professionals. Students cannot receive credit for both HPS 440 and HPS 540. (F).
Diversity Issues in Mental Health explores varied cultural descriptions and models of mental illness. By focusing on the ways that culture shapes how people experience, and respond to, mental illness this class explores cultural representations of mental illness, ranging from discrete illness resulting from a chemical imbalance to a profound threat to order. We seek to understand the cultural, personal, and political underpinnings of mental illness and medical practices in societies throughout the world. The course utilizes an interdisciplinary perspective, drawing from multiple sources of information regarding mental health issues, including feminism, psychiatry, history, sociology, and literature. Issues raised throughout the course include the ways gender, race, culture, religion, and stigma influence the diagnosis of mental illness, patterns of help-seeking behavior, formation of comprehensive mental health policy, and treatment options.
Two 400-level language courses from the following........4-5 hrs  
SPAN 406 Advanced Written Expression  
SPAN 409 Oral Expression  
SPAN 420 Introduction to Translation  
SPAN 421 Advanced Translation  
SPAN 450 Hispanic Cinema  
SPAN 451 Spanish Film  
SPAN 465 Contemporary Spanish Literature  
Other Spanish area offerings..............................................4-5 hrs  

Notes:  
Majors must take at least one course that deals specifically with Spanish (peninsular) topics such as SPAN 351, 356, 358, 451 or 465 and at least one course that deals specifically with Latin American topics such as SPAN 350, 353, or 357.  
Majors are encouraged to spend a semester or year in one of the many approved study-abroad programs.  

Cognates ................................................................................. 6hrs  
Upper level courses from the following disciplines: AAAS, ANTH, ARTH, COMM, COML, ECON, ENGL, ENST, GEOG, GLOC, HIST, HUM, JASS, LIBS (excluding LIBS 300, 395, 396), MCL, PHIL, POL, RELS, SOC, WGST.

NOTES:  
1. A maximum of 54 hours in SPAN may count in the 120 hours required for graduation.  
2. At least 18 of the 24 upper level hours in French must be elected at UM-D.  
3. A maximum of 3 credits of HUM 485 internship can be used in the cognate area.  

MINOR OR BGS/LIBS AREA OF FOCUS  
A minor or area of focus consists of 12 hours of upper-level credit in Spanish.  

Spanish (SPAN)  
COURSE OFFERINGS  

SPAN 101 Beginning Spanish I  
.000 OR 4.000 Credits  
First course in the two-course elementary Spanish sequence.  
Listening comprehension, speaking, reading, writing, and culture are emphasized. Course materials promote the use of language to communicate with others and to function in Hispanic culture. (F,S).  

SPAN 102 Beginning Spanish II  
.000 OR 4.000 Credits  
Prerequisites: SPAN 101 or SPL 102 or SPL 201 or SPL 202 or SPL 301 or SPL 302  
Second course in the two-course elementary Spanish sequence.  
Continued emphasis on culture and the four skills of listening, speaking, reading, and writing. (F,W,S).  

SPAN 201 Intermediate Spanish I  
.000 OR 4.000 Credits  
Prerequisites: SPAN 102 or SPL 202 or SPL 301 or SPL 302 or SPL 201  
An intermediate-level course designed to increase the proficiency in listening, speaking, reading, and writing within a cultural context. Emphasis is placed on acquiring new vocabulary and expanding the use of grammar structures. Course materials promote the use of language to communicate with others and to function in Hispanic culture. (F).  

SPAN 202 Intermediate Spanish II  
.000 OR 4.000 Credits  
Prerequisites: SPAN 201 or SPL 202 or SPL 301 or SPL 302  
Continuation of SPAN 201 with emphasis on the development of all language skills. (W).  

SPAN 254 Spanish Conversation  
2.000 Credits  
Prerequisites: SPAN 102  
This course provides extensive oral practice to reinforce vocabulary and grammar concepts and to improve pronunciation. Conversational skills are developed through discussion and use of communicative exercises, activities, and games. (OC).  

SPAN 301 Adv Conversation and Comp I  
3.000 Credits  
Prerequisites: SPAN 202 or SPL 301 or SPL 302  
An advanced course in conversation, composition, and syntax designed to strengthen existing skills. An intensive review of grammar combined with pronunciation and vocabulary exercises should enable the student to make progress in composition and conversation. Oral and written assignments will be based on readings from contemporary sources. (F).  

SPAN 302 Advan Conversation Comp II  
3.000 Credits  
Prerequisites: SPAN 301 or SPL 302  
Continuation of SPAN 301 with emphasis on the command of conversational and writing skills. (W).  

SPAN 305 Language of Business  
3.000 Credits  
Prerequisites: SPAN 301  
An introduction to the language and practices of the Hispanic world of business. Particular emphasis will be placed on learning the terminology used in typical business correspondence and documents. A variety of businesses will be examined and practice in reading and composing business letters will be provided. (AY).  

SPAN 310 Intro to Hispanic Linguistics  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: SPAN 301  
This class provides students with a systematic overview of key areas of Spanish linguistics, including the sound system, forms of words, syntactic patterns, the development of the language, and regional, social and contextual variation.  

SPAN 350 Masterpiece of Latin Amer Lit  
3.000 Credits  
Prerequisites: SPAN 301  
A survey of Latin American literature from the colonial period to the present. Emphasis will be placed on such influential and outstanding contemporary authors as Borges, Garcia Marquez, Paz, Poniatowska, Rosario, Ferre, and Rulfo. (AY).
Students examine these minority groups and the realities of their
Dominicans, Mexicans, and Puerto Ricans in the United States.
Prerequisites: SPAN 301
3.000 Credits
SPAN 353 Latino Literature
3.000 Credits
Prerequisites: SPAN 301
The course offers a selection of literary representations from a
range of Latino groups with an emphasis on Cubans,
Dominicans, Mexicans, and Puerto Ricans in the United States.
Students examine these minority groups and the realities of their
migrations through a variety of literary periods and genres.
SPAN 356 Spanish Civilization and Cult
3.000 Credits
Prerequisites: SPAN 301
A survey of Spanish civilization from its origins to the present.
The course explores the achievements of the Spanish people in
art, architecture, music, literature, and the sciences and examines
aspects of contemporary Spanish institutions and society.
SPAN 357 Latin American Civiliztn Cult
3.000 Credits
Prerequisites: SPAN 301
A survey of Hispanic culture in the Americas from its inception
to the present. The course examines the contributions of the
Latin American ethnic groups and explores the relationship
between Latin America's past and contemporary achievements
and problems.
SPAN 358 Spain in the Twentieth Century
3.000 Credits
Prerequisites: SPAN 301
A cultural study of the institutions, issues, and values of Spanish
society in the twentieth century as seen in art, architecture,
music, literature, film, and the media. Special emphasis is placed
on contemporary Spain from the end of the Franco era through
the development of a democracy. (OC).
SPAN 385 Spanish Across the Curriculum
1.000 Credits
Prerequisites: SPAN 202
Course is attached to an upper-level course in another discipline
and taken concurrently with it. Course materials in Spanish are
related to the subject matter of the second course and are
discussed with a Spanish-area faculty member. Materials are
also integrated into the assignments of the second course. (OC).
SPAN 390 Topics in Spanish
3.000 Credits
Prerequisites: SPAN 301
Examination of problems and issues in selected areas of
Spanish. Title as listed in Schedule of Classes will change
according to content. Course may be repeated for credit when
specific topics differ. (OC).
SPAN 398 Independent Studies in Spanish
1.000 TO 6.000 Credits
Readings or analytical assignments in Spanish in accordance
with the needs and interests of those enrolled and agreed upon
by the student and instructor. Students may receive a maximum
of six credit hours for a combination of SPAN 398 and SPAN
399. (F,W).
SPAN 399 Independent Studies in Spanish
1.000 TO 6.000 Credits
Readings or analytical assignments in Spanish in accordance
with the needs and interests of those enrolled and agreed upon
by the student and instructor. May be repeated for a maximum
of 6 credit hours. (F,W).
SPAN 406 Advanced Written Expression
2.000 Credits
Prerequisites: SPAN 302
Through the reading and analysis of authentic materials students
will develop and improve their writing skill in various narrative
styles such as dialogue, description, essay or research paper.
Writing as a process involving editing and revision will be
emphasized. (AY).
SPAN 409 Oral Expression
2.000 Credits
Prerequisites: SPAN 302
A course designed to increase the conversational skills of
advanced-level students. A variety of activities and assignments
will help students refine their oral accuracy and expand upon the
number of social situations in which they can function. (AY).
SPAN 420 Introduction to Translation
3.000 Credits
Prerequisites: SPAN 302
An introduction to the history, theory and practice of English-to-
Spanish and Spanish-to-English translation. Emphasis will be
placed on material selected from the fields of business and
commerce, the legal system, and brief passages of literature.
Class projects will include translations of advertisements,
brochures, and documents provided by area businesses. (AY).
SPAN 421 Advanced Translation
3.000 Credits
Prerequisites: SPAN 305 and SPAN 420
The course will continue to apply the translation theory and
techniques introduced in SPAN 420, and it will continue to
focus on English-to-Spanish and Spanish-to-English non-literary
translation. Emphasis will be placed on materials selected from
the fields of business, advertising, and legal discourse. Class
projects will include translation of advertisements, legal
documents, and business brochures. (AY,W).
SPAN 450 Hispanic Cinema
3.000 Credits
Prerequisites: SPAN 301
An introduction to the history and critical analysis of
representative Hispanic films of major directors from Spain and
Latin America. Emphasis will be placed on the historical,
political, and cultural content of these films as they reflect the
problems, customs, and contradictions of Hispanic culture.
(AY).
SPAN 451  Spanish Film
3.000 Credits
Prerequisites: SPAN 301

An introduction to the history and critical analysis of representative Spanish films of major directors from Spain. Emphasis will be placed on the historical, political, social and cultural content of these films as they reflect the problems, customs, and contradictions of Spanish culture.

SPAN 465  Contemporary Spanish Lit
3.000 Credits
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior
Prerequisites: SPAN 301

Spanish 465 provides students with an overview of Contemporary Spanish Peninsular literature and culture through the analysis of narrative texts. Selected readings provide the basis for stylistic and textual analysis. Fostering critical thinking through an analysis of texts is the primary focus of the class. The course specifically examines narrative works that belong to the Spanish literary canon produced after the end of an almost forty year dictatorial regime in 1975. The literary works are deeply rooted in Spain’s social and cultural history. Consequently, they describe the contemporary socio-political scene in which they were produced and look at the uncertain future of this reborn nation.

SPAN 490  Topics in Spanish
3.000 Credits

Examination of problems and issues in selected areas of Spanish language, literature, culture and/or civilization. Title as listed in the Schedule of Classes changes according to content. Course may be repeated for credit when specific topic differs. (OC).

History

History is the art and science of understanding humanity in time; it seeks to recreate the context of changing human activities, be they cultural, economic, political, or social. Because of its special concern for time, history is a valuable field of study for those who want an understanding of where humanity has been and where it is going, and of the world and their own place in it. Furthermore, this field provides a solid background for those who seek a career in teaching, government work, law, or business, honing skills of critical thinking and analysis. In its role bridging disciplines of the social sciences and the humanities, history also enriches an individual's personal life and environment.

PREREQUISITES TO THE MAJOR

Students desiring to concentrate in history are required to elect three of the following courses as prerequisites. The faculty strongly advises that students take these courses during their freshman or sophomore year:

HIST 101  Ancient World
HIST 102  Medieval World
HIST 103  Modern World
HIST 104  Chinese Civilization
HIST 105  Japanese Society and Culture
HIST 106  African Past
HIST 108  Latin America: The Colonial Era
HIST 109  Latin America: The Modern Era
HIST 111  American Past I
HIST 112  American Past II
HIST 113  Islamic Civilization

Current or former CASL Honors students may use HIST 261, 262, 263 and/or 264 to fulfill these requirements.

MAJOR REQUIREMENTS

For a major in history, students are required to complete 27 hours in history from the following:

Required courses .......................................................... 3 hrs
HIST 300  The Study of History

Two courses in U.S. History ............................................. 6 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 304</td>
<td>Studies in Detroit Culture</td>
<td>3 hrs</td>
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<tr>
<td>HIST 305</td>
<td>Society and the Arts in Detroit</td>
<td>3 hrs</td>
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<tr>
<td>HIST 316</td>
<td>African American History</td>
<td>3 hrs</td>
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<td>HIST 318</td>
<td>Early American Republic</td>
<td>3 hrs</td>
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<tr>
<td>HIST 319</td>
<td>Civil War &amp; Reconstruction</td>
<td>3 hrs</td>
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<tr>
<td>HIST 349</td>
<td>Thomas Edison and his Era</td>
<td>3 hrs</td>
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<tr>
<td>HIST 354*</td>
<td>The United States and Vietnam</td>
<td>3 hrs</td>
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<td>HIST 355</td>
<td>Eng. Colonies in America 1607-1763</td>
<td>3 hrs</td>
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<tr>
<td>HIST 356</td>
<td>American Revolution 1763-1815</td>
<td>3 hrs</td>
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<td>HIST 358</td>
<td>Emerg of Modern U.S. 1876-1914</td>
<td>3 hrs</td>
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<td>HIST 359</td>
<td>Era of World Wars: 1916-1946</td>
<td>3 hrs</td>
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<td>HIST 360</td>
<td>The U.S. Since 1946</td>
<td>3 hrs</td>
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<td>HIST 3601</td>
<td>Michigan History</td>
<td>3 hrs</td>
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<td>HIST 3602</td>
<td>Comparative American Identities</td>
<td>3 hrs</td>
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<td>HIST 3603</td>
<td>United States Economic History</td>
<td>3 hrs</td>
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<td>HIST 363</td>
<td>Religion in Amer Hist: 1607-1865</td>
<td>3 hrs</td>
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<tr>
<td>HIST 3632*</td>
<td>The U.S. in the Middle East</td>
<td>3 hrs</td>
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<td>HIST 3634</td>
<td>History of Islam in the U.S.</td>
<td>3 hrs</td>
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<td>HIST 3635</td>
<td>The 1960’s in America</td>
<td>3 hrs</td>
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<td>HIST 364</td>
<td>Religion in Amer Hist II: 1865-1935</td>
<td>3 hrs</td>
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<td>HIST 3651</td>
<td>Women Leadership/Social Change</td>
<td>3 hrs</td>
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<td>HIST 3665</td>
<td>Automobile in American Life</td>
<td>3 hrs</td>
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<td>HIST 3666</td>
<td>Henry Ford and His Place</td>
<td>3 hrs</td>
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<td>HIST 3671</td>
<td>Intro to Arab American Studies</td>
<td>3 hrs</td>
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<td>HIST 3676</td>
<td>Arab Americans Since 1890</td>
<td>3 hrs</td>
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<td>HIST 368</td>
<td>Black Exp in U.S.: 1865-1935</td>
<td>3 hrs</td>
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<td>HIST 369</td>
<td>Civil Rights Movement in America</td>
<td>3 hrs</td>
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<td>HIST 3695</td>
<td>American City</td>
<td>3 hrs</td>
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<td>HIST 370</td>
<td>Women in Amer Hist Perspective</td>
<td>3 hrs</td>
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<td>HIST 371</td>
<td>American Ideas 1607-1865</td>
<td>3 hrs</td>
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<td>HIST 374</td>
<td>History of Industrial Technology</td>
<td>3 hrs</td>
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<td>HIST 383</td>
<td>Labor in America</td>
<td>3 hrs</td>
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<td>HIST 384</td>
<td>Immigration in America</td>
<td>3 hrs</td>
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<tr>
<td>HIST 386*</td>
<td>Compar History of Technology</td>
<td>3 hrs</td>
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<td>HIST 465</td>
<td>The Family in History</td>
<td>3 hrs</td>
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<tr>
<td>HIST 467</td>
<td>Seminar in U.S. Cultural History</td>
<td>3 hrs</td>
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<tr>
<td>HIST 4670</td>
<td>Seminar in U.S. Women’s History</td>
<td>3 hrs</td>
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<td>HIST 4677</td>
<td>Arab American Identities</td>
<td>3 hrs</td>
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<tr>
<td>HIST 4678*</td>
<td>Mid East Diasporas Europe and Am</td>
<td>3 hrs</td>
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</table>

*Note: May count as U.S. or Non U.S., but not both

Three courses in Non-U.S. History .................................... 9 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HIST 302</td>
<td>Russian Intellectual History</td>
<td>3 hrs</td>
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<tr>
<td>HIST 303</td>
<td>The Birth of Civilization</td>
<td>3 hrs</td>
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<tr>
<td>HIST 306</td>
<td>20th Century Russian Intel Hist</td>
<td>3 hrs</td>
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<tr>
<td>HIST 307</td>
<td>Early Russian History</td>
<td>3 hrs</td>
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<td>HIST 308</td>
<td>Imperial Russia</td>
<td>3 hrs</td>
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<tr>
<td>HIST 309</td>
<td>The Russian Revolutions</td>
<td>3 hrs</td>
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<tr>
<td>HIST 3121</td>
<td>Polish History Since 1800</td>
<td>3 hrs</td>
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<tr>
<td>HIST 3130</td>
<td>Armenia Ancient Medieval World</td>
<td>3 hrs</td>
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<tr>
<td>HIST 3131</td>
<td>Armenia in the Soviet Period</td>
<td>3 hrs</td>
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</tbody>
</table>
Cognates

A broadly based introductory study of China that exposes the student to a culture very different from our own and helps that student to understand Chinese institutions and values. It explores student to a culture very different from our own and helps that student to understand Chinese institutions and values. It explores the A broadly based introductory study of China that exposes the student to a culture very different from our own and helps that student to understand Chinese institutions and values. It explores the

NOTES:

1. A maximum of 44 hours in HIST may count in the 120 hours required for graduation.
2. At least 15 of the 27 upper level hours in History must be elected at UM-D.
3. History Internship (HIST 485) cannot be used to fulfill major requirements.

PORTFOLIO

In order to graduate with a degree in history, students must compile a portfolio of papers written in history courses. Students beginning a portfolio on or after September 1, 2013 must complete an electronic portfolio. The Portfolio is an archive of at least four significant papers from upper-division history courses taken at UM-Dearborn. It must include the HIST 300 paper and at least one paper from a capstone (400/4000 level) course, along with a capstone reflection essay that highlights those papers that best demonstrate mastery of learning outcomes for history concentrators.

MINOR OR AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in history (at least six credit hours of U.S. history and six credit hours of non-U.S. history).

ADVISING

History majors should consult with an adviser before the beginning of each semester.

History (HIST)

COURSE OFFERINGS

**HIST 101** Ancient World
3.000 Credits

This course is an introductory survey of world history from the close of the Ice Age to ca. 1000 CE. We will compare world civilizations and examine the connections among them.

**HIST 102** Medieval and Renaissance World
3.000 Credits

An introductory course in modern history beginning in the eighteenth century. Emphasis on social, political and economic trends, including the role of geography, climate and catastrophe in shaping human societies, and the relationship between warfare and the rise of the nation state. Topics include the rediscovery of classical traditions in the Renaissance, the rise of the Gunpowder Empires in Asia and the Middle East, and cross-cultural interactions between the European West and the American 'New World'.

**HIST 103** Modern World
3.000 Credits

An introductory course in modern history beginning in the eighteenth century. Emphasis on social, political and economic trends, including the role of geography, climate and catastrophe in shaping human societies, and the relationship between warfare and the rise of the nation state. Topics include the rediscovery of classical traditions in the Renaissance, the rise of the Gunpowder Empires in Asia and the Middle East, and cross-cultural interactions between the European West and the American 'New World'.

**HIST 104** Chinese Civilization
3.000 Credits

A broadly based introductory study of China that exposes the student to a culture very different from our own and helps that student to understand Chinese institutions and values. It explores essential elements of Chinese civilization in comparative reference to the development of western civilization. Recommended for freshmen and sophomores. (YR).

**HIST 105** Japanese Society and Culture
3.000 Credits

A survey of Japanese society and culture in the traditional and modern periods, treated within the comparative framework of the history of the western world. It examines the development of traditional culture under Chinese influence and the subsequent interaction with modern western nations. Recommended for freshmen and sophomores. (YR).

**HIST 3132** Armenians in the Modern World
3 hrs

**HIST 314** England: Tudors and Stuarts
3 hrs

**HIST 315** Modern Britain
3 hrs

**HIST 321** Late Imperial China
3 hrs

**HIST 322** Traditional China
3 hrs

**HIST 323** History of Modern China
3 hrs

**HIST 325** Traditional Japan
3 hrs

**HIST 326** Modern Japan
3 hrs

**HIST 329** Medieval Society
3 hrs

**HIST 330** The Renaissance
3 hrs

**HIST 331** The Reformation Era 1500-1648
3 hrs

**HIST 332** Europe in Age of Revol 1750-1815
3 hrs

**HIST 333** Europe in Age of Imp 1815-1914
3 hrs

**HIST 334** 20th Century Europe
3 hrs

**HIST 335** The Contemp. World 1945-Present
3 hrs

**HIST 336** Islamic Move. Mid East Hist
3 hrs

**HIST 337** Women & Islam in Mid East to 1900
3 hrs

**HIST 338** Ottomon Empire in 19th Century
3 hrs

**HIST 340** Freud’s Vienna 1866-1920
3 hrs

**HIST 343** Germany Before Hitler
3 hrs

**HIST 345** West Africa Since 1800
3 hrs

**HIST 351** Modern Mid East, 1918-1945
3 hrs

**HIST 352** Modern Mid East, 1945-1991
3 hrs

**HIST 3520** Lebanon in Modern Mid East
3 hrs

**HIST 353** The United States and Vietnam
3 hrs

**HIST 362** Europe and Intern’l Econ History
3 hrs

**HIST 3632** The U.S. in the Mid East
3 hrs

**HIST 365** Honors Seminar
3 hrs

**HIST 373** History of Consciousness
3 hrs

**HIST 379** Language, Myth and Dreams
3 hrs

**HIST 381** Intell History of Modern Europe
3 hrs

**HIST 385** Modern France
3 hrs

**HIST 386** Compar History of Technology
3 hrs

**HIST 387** Aspects of the Holocaust
3 hrs

**HIST 389** Nazi Germany
3 hrs

**HIST 390** Nazi Germany
3 hrs

**HIST 393** Nazi Germany
3 hrs

**HIST 395** Nazi Germany
3 hrs

**HIST 396** Nazi Germany
3 hrs

**HIST 397** Nazi Germany
3 hrs

**HIST 398** Nazi Germany
3 hrs

**HIST 399** Nazi Germany
3 hrs

**HIST 499** Senior Research Seminar
3 hrs

**HIST 498** Senior Honors Thesis
3 hrs

**HIST 499 (YR)**

3.000 Credits

This course is an introductory survey of world history from the close of the Ice Age to ca. 1000 CE. We will compare world civilizations and examine the connections among them.

**HIST 102** Medieval and Renaissance World
3.000 Credits

An introductory course in modern history beginning in the eighteenth century. Emphasis on social, political and economic trends, including the role of geography, climate and catastrophe in shaping human societies, and the relationship between warfare and the rise of the nation state. Topics include the rediscovery of classical traditions in the Renaissance, the rise of the Gunpowder Empires in Asia and the Middle East, and cross-cultural interactions between the European West and the American 'New World'.

**HIST 103** Modern World
3.000 Credits

An introductory course in modern history beginning in the eighteenth century. Emphasis on social, political and economic trends, including the role of geography, climate and catastrophe in shaping human societies, and the relationship between warfare and the rise of the nation state. Topics include the rediscovery of classical traditions in the Renaissance, the rise of the Gunpowder Empires in Asia and the Middle East, and cross-cultural interactions between the European West and the American 'New World'.

**HIST 104** Chinese Civilization
3.000 Credits

A broadly based introductory study of China that exposes the student to a culture very different from our own and helps that student to understand Chinese institutions and values. It explores essential elements of Chinese civilization in comparative reference to the development of western civilization. Recommended for freshmen and sophomores. (YR).

**HIST 105** Japanese Society and Culture
3.000 Credits

A survey of Japanese society and culture in the traditional and modern periods, treated within the comparative framework of the history of the western world. It examines the development of traditional culture under Chinese influence and the subsequent interaction with modern western nations. Recommended for freshmen and sophomores. (YR).
HIST 106  An Intro to the African Past
3.000 Credits
Survey of the social, economic, political, intellectual, and cultural heritage of the African peoples from prehistory to the present. Emphasis on internal dynamics of African society through five millennia, as well as the impact of external forces on African life. Themes of particular interest: the roots of African culture, the trans-Atlantic slave trade and the African diaspora in the New World, the European Conquest, and the character of the colonial order and the ongoing struggle to end the legacy of alien domination. (YR).

HIST 108  Latin America: The Colonial Era
3.000 Credits
This course will examine the colonial period in Latin American history from the Spanish and Portuguese contact and conquest to the early nineteenth-century wars for independence. It will focus on the background of European colonization, the process of interaction between Natives and Europeans, the growth and development of colonial society, the shifting uses of land and labor, and the roots of the nineteenth-century revolutionary movements. (OC).

HIST 109  Latin America: The Modern Era
3.000 Credits
This course examines the modern era in Latin American history from the early nineteenth-century wars for independence to the present day. The course will focus on the formation of the Latin American states, the development and growth of Latin American culture and society, the legacy of slavery, the transition to capitalism in the region, the growth of export economies and dependency, and the rise of nationalism and revolutionary movements in the region. (OC).

HIST 111  The American Past I
3.000 Credits
A survey of the economic, social, and political developments in America from the colonial era to the Civil War.

HIST 112  The American Past II
3.000 Credits
A survey of the economic, social, and political developments in America from the conclusion of the Civil War through the present.

HIST 113  Islamic Civilization
3.000 Credits
This course is an introductory historical survey of Islamic societies and cultures from the rise of Islam in the 7th Century to the present day.

HIST 114  Islamic Civ: 1500 to Present
3.000 Credits
Beginning in the 16th Century, this course will cover the "gunpowder empires" in the Greater Middle East, the spread of Islam globally, and the encounter with European global hegemony. Also covered are movements calling for political, social and religious reform in the Islamic World from 1800 to the present day.

HIST 114  An Intro to the African Past
3.000 Credits
Survey of the social, economic, political, intellectual, and cultural heritage of the African peoples from prehistory to the present. Emphasis on internal dynamics of African society through five millennia, as well as the impact of external forces on African life. Themes of particular interest: the roots of African culture, the trans-Atlantic slave trade and the African diaspora in the New World, the European Conquest, and the character of the colonial order and the ongoing struggle to end the legacy of alien domination. (YR).

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HIST 261  Western Culture I
3.000 Credits
Prerequisites: HIST 365
First of a series of four courses. An interdisciplinary course on the nature of the Western classical and Biblical traditions. It examines Western values, attitudes, history, art history, the roots of scientific thought, logic and social institutions such as the family and the state. Included are works of literature, history, philosophy, and art history. (YR).

HIST 262  Western Culture II
3.000 Credits
Prerequisites: HIST 365
Second of four courses on Western Civilization required of all Honors Students. The course covers the period of the Middle Ages, Renaissance, and Reformation. Focus is on the ways in which Biblical and Classical traditions are preserved, adapted, transformed, or discarded under the pressures of new social and political formations. Materials are drawn from literature, philosophy, political theory, art. (W).

HIST 263  Western Culture III
3.000 Credits
Prerequisites: HIST 365
This course covers the period from the 17th to 19th centuries. Focus is on the emergence of scientific thought, enlightenment political theory, romantic individualism, and the great 19th-century intellectual revolutions of Darwinism, Marxism, and feminism. Materials are drawn from literature, philosophy, and political and scientific writings. Third of four courses on Western Civilization required of all Honors Students. (YR).

HIST 264  Western Culture IV
3.000 Credits
Prerequisites: HIST 365
Fourth of four courses required of all Honor Students. This course covers the period from late 19th-century to the present. Focus is on selected major issues of Western civilization in the modern era: science and human values, bureaucratic and totalitarian societies, psychoanalytical thought, feminism, nihilism, and existentialism. (YR).

HIST 290  Topics in History
3.000 Credits
Problems and issues in selected areas of history. Title listed in Schedule of Classes changes according to content. Courses may be repeated for credit when specific topics differ. (OC).

HIST 291  Topics in History
3.000 Credits
Problems and issues in selected areas of history. Title listed in Schedule of Classes change according to content. Courses may be repeated for credit when specific topics differ. (OC).

HIST 300  The Study of History
3.000 Credits
Prerequisites: HIST 101 or HIST 102 or HIST 103 or HIST 104 or HIST 105 or HIST 111 or HIST 112 or HIST 113 or HIST 114
A study of the theories of historical analysis, styles of historical writing, and approaches to historical research. For history majors who should elect it as soon as they declare their concentration. (F,W).
HIST 302  Russian Intellectual History
3.000 Credits
Examines the historical myths that supported traditional Russian institutions, the literature that expressed these myths in symbolic form, the relationships between the social classes, and the conflict of values and goals in 19th-century Russia. Through the literature of the period the course explores social, intellectual, and political movements. The material is organized to consider both revolutionary and reactionary ideologies, origins of each, and the dynamics between them. (AY).

HIST 303  The Birth of Civilization
3.000 Credits
Course examines the nature of the intellectual structure of the ancient Egyptians, Mesopotamians and Hebrews, and the social structures and historical developments of those cultures. Emphasis is on the evolution of civilization, the contrasts between Egypt and Mesopotamia, and most importantly, the shifts from mythical to philosophical thinking and discourse. (OC).

HIST 304  Studies in Detroit Culture
3.000 Credits
A modern cultural history of Detroit. Usually taught by two faculty members, the course emphasizes the role of literature, art, and music, and architecture in the city's history. (YR).

HIST 306  20th-C Russian Intel History
3.000 Credits
Study of the relationships between revolutionary philosophies and actions; the dilemma of the Russian Revolution and the dilemma of its "success"; the interaction of art, literature, and revolutionary movements. The course examines historical developments through novels, poetry, and philosophy. (AY).

HIST 307  Early Russian History
3.000 Credits
A history of Russia from its prehistoric origins to the beginning of the 19th century, focusing on political and economic development, cultural and religious dynamics, foreign relations, and expansion in Asia. Stress is placed on political dynamics, including the forces of democracy in Russia's past. (AY).

HIST 308  Imperial Russia
3.000 Credits
A history of Russia from the time of Peter the Great to the Russian revolutions of 1917. Attention is given to internal affairs, economic development, foreign relations, the failure of reforms, and the emergence of the revolutionary movement. (AY).

HIST 3085  History Internship
3.000 TO 6.000 Credits
The internship offers students experience in types of work available to liberal arts graduates. Regular meetings between the Internship Coordinator and the intern are required. Credit applies to the degree as a general elective and does not apply to any concentration.

HIST 309  The Russian Revolutions
3.000 Credits
Provides a broad overview of Russian history leading to the Russian revolutions of 1917, and a more detailed analysis of the revolutions of 1905 and 1917 and the subsequent development of the Soviet Union up to the present. Roots of present Soviet behavior will be sought in Russia's past. (AY).

HIST 3121  Polish History Since 1800
3.000 Credits
This class offers students a chance to study 19th and 20th century Polish history. We look at how the most prominent ideals of what it means to be Polish framed as a discussion between the Romantics and Positivists; the Fighters/Insurgents and Realists; the Old and New affected the perceptions on honor, heroism, and Polish patriotism. A critical evaluation of these models leads us to evaluate the most important historical events in the last two centuries of Polish history a country with impressive history of openness and multiculturalism as well as grim chapters of xenophobia. Centered on the role of individuals in shaping history, this class also reflects on the identity of Poles citizens of a country located at the cross-roads of Eastern and Western Europe.

HIST 3130  Armenia Ancient Medieval World
3.000 Credits
Must be enrolled in one of the following classes:
- Senior
- Sophomore
- Freshman
- Junior

The course is a general survey of Armenian history and culture from the pre-historic period to the early sixteenth century, with emphasis on Arménias political, economic and cultural interrelationships with other countries and peoples in the Near and Middle East, Europe and Central Asia. The course analyzes how the major political and demographic shifts in world history impacted Armenia and the Armenians. Each era of Armenia history is discussed in terms of developments in the surrounding countries. Attention is given to politics, international relations, trade, religion, literature, art, and architecture.

HIST 3131  Armenia in the Soviet Period
3.000 Credits
HIST 3131 will study the history of the Soviet Republic of Armenia, when it was ruled by Communists and was part of the USSR in 1920-1991. It will chronicle the broad political, economic, social and cultural developments throughout 70 years of Soviet history and will then study in detail how these developments affected life in Armenia, one the fifteen union republics of the USSR, and relations between Soviet Armenia and the Armenian Diaspora outside the USSR, including the Armenian American community. The course will help students to better understand the Soviet experience by focusing on developments not only in the political center in Moscow, but in the southernmost and territorially the smallest of all the Soviet republics. It will also help students to better comprehend the historical background to some contemporary developments in Transcaucasia (the South Caucasus), Turkey, Iran and the Arab states of Western Asia.
HIST 3132  Armenians in the Modern World
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Sophomore
  Freshman
  Junior

The course is a general survey of Armenian history and culture from the early sixteenth century to the present, with emphasis on political, economic and cultural interrelationships with other countries and peoples in the Near and Middle East, Europe and the Americas. The course analyzes how the major political shifts in world history impacted Armenia and the Armenians. Therefore, each era of Armenian history covered in this course is discussed in terms of developments worldwide and especially in the surrounding countries. Studying Armenia and the Armenian people gives students an understanding of what happens to, in, and around small countries as they find themselves in a regularly changing international political environment. Attention is given to politics, international relations, economics, religion, literature, art, and architecture. Modern Armenian history and culture is discussed in relation to Ottoman, Iranian, Russian, West European, North America, and other civilizations.

HIST 314  England: Tudors and Stuarts
3.000 Credits

A political, economic, and social survey of England from 1485 to the end of the 17th century. Focus is on the interrelation of society and politics as well as on the rise of England to major international status. (AY).

HIST 315  Modern Britain
3.000 Credits

Course focuses on Great Britain from the time of the Industrial Revolution to the present. Major problems considered are industrialization, the British empire and its disintegration, the democratization of British political life, the creation of the welfare state, and Britain's role in the contemporary world. (AY).

HIST 316  African American History
3.000 Credits

This course traces the experience of African Americans from their first landing in Virginia in 1619 through slavery and the Civil War. Emphasis will be placed on the origins of racism, the development of the slave system in the United States and the historical developments that led to the Civil War. (YR).

HIST 318  Early American Republic
3.000 Credits

This course examines the history of the United States from the ratification of the Federal Constitution through the Presidency of Andrew Jackson. Particular attention is given to the process of political party formation, the impact of the "market revolution" upon life, the origins and ramifications of the Second Great Awakening, the antebellum reform movements, and slavery. (YR).

HIST 319  Civil War & Reconstruction
3.000 Credits

This course examines America's pivotal middle period, a period of rising sectional tensions, bloody civil war, and protracted debate about the promise and limits of equality in the United States. Among the topics covered are the meaning of freedom in antebellum America, territorial expansion and the development of slavery as a political issue, the collapse of the national party system and the secession crisis, the meaning of the American Civil War, and the postwar settlement of reconstruction. (YR).

HIST 321  Late Imperial China
3.000 Credits

Explores key issues in Chinese society and culture from around 900 CE to around 1800 CE, considering demography, family life and lineage organization, gender relations, farming and handicraft industries, intellectual trends, ethnic relations, popular culture, education, social stratification, and social control under imperial bureaucracy. (AY).

HIST 322  Traditional China
3.000 Credits

Examines Chinese history from ancient times to around 900 CE, stressing key developments in society, culture, and government that produced enduring cultural traditions, bureaucratic government, and distinctive patterns cultural exchange in Eastern Eurasia. (AY).

HIST 323  History of Modern China
3.000 Credits

Studies China’s historical evolution from around 1800 to recent events in the People’s Republic; assesses China’s distinctive path to modernity from traditional ideals and patterns of order, including demographic transformations, Western impact, rebellions and wars, nationalism and revolutions, and recent economic growth and social change. (YR).

HIST 325  Traditional Japan
3.000 Credits

Traditional Japan from ancient times to around 1800; emphasis is placed on the evolution of Japanese institutions under the cultural influences of China. (AY).

HIST 326  Modern Japan
3.000 Credits

Japan from around 1850 to present. The course considers the impact of foreign contacts on the Tokugawa system, the emergence of Japan as a modern state, Westernization and nationalistic reaction, the rise of militarism, the Pacific War, economic growth and social changes after the war, and changes in the U.S.-Japan relations. (OC).

HIST 329  Medieval Society
3.000 Credits

An analysis of social institutions and ideas from the High Middle Ages through the discussion of original sources. (AY).

HIST 330  The Renaissance
3.000 Credits

This interdisciplinary study of Renaissance culture focuses on its preeminent center, Italy, in the 15th and 16th centuries. The course investigates major aspects of art, music, literature, and philosophy and their relationships to social, economic, and political structures.

HIST 331  The Reformation Era: 1500-1648
2.000 TO 3.000 Credits

A study of the nature, course, and impact of the Protestant Reformation in Europe, Humanism, the Counter-Reformation, and the cultural and social implications of Protestantism also receive attention. (YR).
HIST 333  Europe in Age of Rev:1750-1815  
3.000 Credits  
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior  
Prerequisites: HIST 365  

History of Europe during a period when established patterns of thought, social structure, and institutions were violently challenged. (AY).

HIST 334  Europe in Age of Imp:1815-1914  
3.000 Credits  

Europe in the age of nationalism, industrialism, imperialism, and democracy; background and origins of World War I. (YR).

HIST 335  20th-Century Europe, 1890-1945  
3.000 Credits  

Europe before, during, and after World War I; the rise of communism and fascism; World War II. (AY).

HIST 336  The Contmp World, 1945-Present  
3.000 Credits  

The post-war world, U.S.-Soviet rivalry, European/Japanese renaissance, the Chinese Revolution; decolonization and the emergence of the Third World. (OC).

HIST 337  Islamic Movemnts Mid East Hist  
3.000 Credits  

Will compare several Islamic movements in Middle Eastern history, starting with the rise of Islam in Mecca and Medina. Later impulses toward Islamic revival all looked back to the first movement, and hoped to capture both its spirit and its success. With this as background, the course will move to address two questions: How did later Islamic movements understand the history of the rise of Islam? How have later Islamic movements had to adapt their methods and their ideology to different historical circumstances? (AY).

HIST 338  Women&Islam Mid East to 1900  
3.000 Credits  

This course covers the historical development of Islam’s normative stance towards women and gender roles in the Middle East from the rise of Islam to the earliest stirrings of feminist activism.

HIST 339  Ottoman Empire in 19th Century  
3.000 Credits  

The course is general survey of the history of the Ottoman Empire from the treaty of Kucuk Kaynarca in 1774 until the abolition of the caliphate in 1924. The course will examine such topics as modernization; imperialism; the rise of ethnic nationalism among the empire’s Christian and Muslim subjects; democracy; ideologies like Ottomanism, pan-Islamism, Islamic modernism, and pan-Turkism; and changing ideas about gender.

HIST 340  Freud's Vienna: 1866-1920  
3.000 Credits  

An analysis of the place of Vienna in the cultural history of the modern west; particular attention is given to the Vienna of Franz Josef (1848-1916) through the disciplines of history, art, architecture, music, literature, philosophy and psychoanalysis. Included are works by Freud, Schnitzler, Kraus, and Zweig. (AY).

HIST 341  Hist, Lit, & 20th Century Iran  
3.000 Credits  

This course will examine the formation of modern Iranian culture through both historical documents and the creative works of mainly 20th Century Iranian poets and authors. The focus of the course will be the period between Iran’s Constitutional Revolution of 1905-1906 and the revolution of 1977-1979.

HIST 342  Germany Before Hitler  
3.000 Credits  

An analysis of the cultural and intellectual life during one of Germany’s greatest eras. Lectures and discussions are based on German literature, art, film, philosophy, architecture, and history. The background of Weimar culture and the rise of Hitler’s Germany are also considered. (YR).

HIST 343  West Africa Since 1800  
3.000 Credits  

A history of the West African peoples since 1800, which focuses on their unique cultural heritage. Themes include: West Africa before the advent of alien domination, the European Conquest, West Africa under the Colonial regimes, and the liquidation of colonial rule and the reassertion of West African independence. (AY).

HIST 344  Thomas Edison and his Era  
3.000 Credits  

This course will introduce students to the life and work of Thomas Edison. Breaking with the stereotype of the lone inventor/genius, we will examine how Edison helped shape and was in turn shaped by the context of the Gilded Age America - when the United States emerged as an urban, industrial nation. Lectures and discussions will be supplemented by slides, films, and visits to the Edison-related sites at the Henry Ford. Throughout the course the following themes will be explored: invention and the labor process, the significance of manufacturing and marketing, and the origins of modern consumer culture. (OC).

HIST 3511  Modern Middle East, 1918-1945  
3.000 Credits  

This course surveys the history of major political events and social changes in the Middle East from 1918 to 1945. Among the topics covered are the struggle of Arab States for independence, the rise of Kemalism, and the rise of the Phalavi Dynasty.

HIST 3512  Modern Middle East, 1945-1991  
3.000 Credits  

This course surveys the history of major political events and social changes in the Middle East from 1945 to 1991. Among the topics covered are the "Arab Cold War," the Palestinian-Israeli conflict, the struggle for democracy, and the resurgence of "Islamist" politics.
HIST 3520  Lebanon in Modern Middle East
3.000 Credits
HIST 3520 will study the modern history of Lebanon and the
country's involvement in broader Arab and Middle Eastern
politics from the period when the country's modern boundaries
were established in 1920 to the end of its fifteen-year-long civil
war in 1990. The course will focus on the relations of the
Lebanese state, its various ethno-confessional communities and
political groupings with the Great Powers like France, the
United Kingdom, the Soviet Union and the United States of
America, as well as with the influential Arab states in the region,
in particular Egypt, Syria, Saudi Arabia and Iraq. Particular
attention will be paid to the impact of the Arab-Israeli conflict
and the presence of Palestinian refugees on internal Lebanese
politics. The course will also analyze the diverse, sometimes
contrasting, visions among Lebanon's various local elites
which are part of the region and the world and how these
visions underwent change in light of evolving internal
social and external political developments. (YR)

HIST 354  The United States and Vietnam
3.000 Credits
The Vietnam War was a major turning point in U.S. history.
This course focuses on French rule in Indo-China; U.S. interests
in the region; U.S. involvement after 1945; the military,
economic, and social nature of that intervention; and the
consequences of the war. (OC).

HIST 355  Eng Colonies in Amer, 1607-1763
3.000 Credits
European expansion into North America; colonial societies,
ideas, and institutions; imperial policy and administration, and
acompanying changes in Amerindian and African cultures, and
New World ecologies. (YR).

HIST 356  American Revolution, 1763-1815
3.000 Credits
The causes, character, and consequences of the American
Revolution, and the shaping of a new nation through the War of
1812. (YR).

HIST 358  Emerg of Modern U.S., 1876-1916
3.000 Credits
An intensive study of the history of the United States from the
end of Reconstruction to America's entry into World War I.
Particular attention is paid to the social, economic, and
intellectual aspects of the period and to the origins of 20th-
century America. (OC).

HIST 359  Era of World Wars: 1916-1946
3.000 Credits
An intensive study of the history of the United States from 1916
to 1946. Topics include World War I and its aftermath, the
Depression, the New Deal, World War II, and post-war
settlements and problems. (OC).

HIST 360  The U.S. Since 1946
3.000 Credits
This course focuses on the era bracketed by the Truman through
the present administrations. Particular attention is given to the
New Deal, the Truman policy of containment, the Cold War,
relations with China, McCarthyism, the Korean War, the civil
rights movements, the New Frontier, involvement in Vietnam,
and the problems of contemporary America. (AY).

HIST 361  United States Economic History
3.000 Credits
Prerequisites: ECON 201 and ECON 202
A survey of the processes of development of the United States
economy, their social implications, and the sources of today's
economic problems. (F).

HIST 362  Eur and Intern'l Econ History
3.000 Credits
Prerequisites: ECON 201 and ECON 202
A survey of the processes of industrialization in the major non-
American industrial economies, with a focus on their relevance
and implications. (AY).

HIST 363  Rel in Amer Hist: 1607-1865
3.000 Credits
A survey of the religious movements and trends in America
from the 17th century to the Civil War, with emphasis on
Puritanism, 18th-century revivalism, and 19th-century
denominationalism and social reform. (AY).

HIST 364  The U.S. in the Middle East
3.000 Credits
HIST 364 will examine the involvement of the US in the
Middle East from the late 18th Century to modern times. The
relationship between domestic politics and foreign policy (both
in the US and in the Middle East) will be examined as US
involvement in the Middle East grows from irregular missionary
and commercial activity in the 19th century, to the establishment
full diplomatic relations, to the complexities related to the
globalization of the oil industry, Cold War interventions and,
ultimately, the establishment of US hegemony in the region.
Students will examine a number of "case studies" in US-Middle
East relations as a platform for their own research into other
episodes of American involvement in the Middle East. (YR)
HIST 3634 History of Islam in the US
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Sophomore
Graduate
Junior
This course traces the long history of Islam and of Muslims in the United States (1730s-present), paying careful attention to the interaction among Muslims across the dividing lines of race, gender, immigrant generations, sect, political orientation, and class, and between Muslims and other Americans.

HIST 3635 The 1960s in America
3.000 Credits
This course aims to interweave the civil rights movement, the Vietnam War, the student movements, the women's movement, and other developments of the period to place them in an historical context of a complicated era of change. The course compels students to critically evaluate social movements, political developments, cultural trends, and foreign policies by close examination of primary documents as well as critical evaluations of the various ways that scholars have interpreted the period. (AY).

HIST 364 Rel in Am Hist II: 1865-Present
3.000 Credits
A survey of American religion from the Civil War to the present, with emphasis on ethnicity and religion and post-World War II revivals of religion. (AY).

HIST 365 Honors Seminar
3.000 Credits
Must be enrolled in one of the following classes:
Freshman
To teach habits of informed criticism based on critical analysis of primary and secondary texts. This course will give Honors students the opportunity to learn reflective, critical listening and inquiry skills, which are essential to informed discussion of the Honors core course material. The content of specific courses will vary from semester to semester according to individual instructors. (YR).

HIST 3651 Women Leadership/Social Change
3.000 Credits
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: HIST 112 or WST 275 or WGST 303 or PSYC 303 or ANTH 303 or SOC 303 or HUM 303 or ANTH 275 or PSYC 275 or ANTH 275 or SOC 275 or HUM 275 or WGST 275 or WGST 275
The purpose of this seminar is to examine women's leadership in movements for social change. We will approach this topic through the study of historical examples, drawn primarily from the twentieth-century United States, and including movements for economic justice, race relations, sexual identity, peace, gender equality, public health, and social welfare. (W).

HIST 3665 Automobile in American Life
3.000 Credits
The course will explore a wide array of distinct, though interconnected, subjects such as: the manufacturing, engineering and design of the automobile and its relation to industrial and technological developments and consumer trends; the automobile's role in America's industrial growth and the impact that industrialization had upon American society; the automobile's role in urbanization and urban sprawl; the mass marketing of the automobile and its connection to broader social constructions of class, race, and gender; the environmental impact of the automobile; and the automobile's use and meaning as a cultural symbol and its relation to the American identity. Through the use of diverse mediums such as personal recollections, popular music, film, photographs, advertisements, automobile ephemera, literature, poetry and more traditional written sources the course will examine America's ongoing fascination with the automobile. (OC)

HIST 3666 Henry Ford and His Place
3.000 Credits
Using the biography of Henry Ford as a touchstone, the course will examine the trajectories of historical change and regional development between 1870 and 1950. Of fundamental concern will be southeastern Michigan's transformation from a 19th century outpost on the Great Lakes to the nation's "engine of change" in the 20th century. Henry Ford was the major player in that revolutionary transformation. This course examines his role in history and mythology as well as the causes and implications of that transformation. (OC).

HIST 3671 Intro to Arab American Studies
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
This course explores the local, national, and global conditions through which Arab American identity and its alternatives take shape. It introduces students to humanities and social science approaches to the field of Arab American Studies.

HIST 3675 Arab Americans Since 1890
3.000 Credits
This is a survey of immigration from the Arab Middle East from 1890 to the present. Readings from available scholarship, discussions, and reports facilitate exploring the Arab-speaking immigrants early and recent experiences as art of U.S. society, including settlement, work, worship, military service, leisure, intellectual life, and primary and formal affiliations across the U.S.

HIST 368 Black Exp in U.S.:1865-Present
3.000 Credits
The history of blacks in America is traced from the Reconstruction era and the rise of Jim Crow segregation to the Civil Rights movement of the 1960's and the current period. Special attention is paid to the migration of blacks to the north and the social-economic situation which they encountered there. Specific topics to be addressed include formation of the NAACP. (YR).

HIST 369 Civil Rights Movement in Amer
3.000 Credits
A survey of race relations and civil rights activity from the late 19th century to the present. The principal focus, however, is on the period since World War II, especially on the mass-based Southern civil rights movement (1955-1965) and the various policy debates and initiatives of the past thirty years, most notably affirmative action and busing. We also examine critiques of non-violence and integrationism. (AY).
HIST 3695  American City  
3.000 Credits

This course examines the development of urban America from the European-style port cities of the colonial period through the edge cities of today. The bulk of the course will focus on the late 19th and 20th century urban environment with an eye towards understanding the diverse residents, cultures, economies, and geographies that have shaped American cities. We will cover everything from developments in transportation, architecture, business, and technology to immigration, politics, and urban culture. Broad concerns and constituencies have shaped the urban public sphere, the physical development of cities and the experience of living as an urbanite and, consequently, they will receive much of our attention. American patterns of development will then be placed in context with those of other nations and cultures. (AY).

HIST 370  Women in Am-Hist Perspective  
3.000 Credits

A survey of women's role in American society from colonial times to the present, emphasizing both change and continuity in women's experience. (YR).

HIST 371  American Ideas, 1607-1865  
3.000 Credits

Ideas about God and humanity, nature and society, which constituted the spirit of the age from the 17th century to the Civil War. (OC).

HIST 3730  Bible in History  
3.000 Credits

In this course we will try to examine the historical circumstances and contexts surrounding the writing of The Hebrew Bible. Roughly speaking, we will begin by exploring three aspects of the subject: Historical context of the writing of the Bible-i.e. during the organizing and communicating of each segment. History of the canonization: the ideas and rationale behind including some books but not others. History in the Bible. In more specific terms, this will entail examining who wrote the Bible, when and why. The narrative incorporates the movement from an oral tradition to a written one and will demand some focus on certain pivotal moments, e.g., Ezra's reading (cf. Ezra-Nehemiah), or the historical events in Kings and Chronicles, or the defeat of the northern kingdom of Israel in 722 B.C.E. (BC) and of the southern kingdom of Judah in 589 B.C.E.

HIST 374  History of Industrial Techngy  
3.000 Credits

Focusing on Western Europe and the United States since the Industrial Revolution, this course will examine the history of manufacturing technologies and will include the following topics: mechanization and the rise of the factory; mass production; the process of innovation; design and diffusion of new technologies; technologies; technology and the changing nature of work; automation and lean production systems. Through readings, class discussions, and examination of artifacts (actual tools and machines), students will consider the central role played by technology in the making of modern society. (OC).

HIST 375  Heterodox Economics  
3.000 Credits
Prerequisites: ECON 201 and ECON 202

This course introduces students to alternative perspectives on economic theory and method. These alternatives include: Marxist and radical political economics, institutional and evolutionary economics, behavioral economics, post-Keynesian economics and feminist economics. (OC).

HIST 378  History of Consciousness  
3.000 Credits

Traces changes in the way people have viewed themselves, the world and changes in the forms or orders of thinking; in other words, changes in consciousness and concepts of the unconscious. The mode is intellectual history and involves studies of the ideas of philosophers and literary artists. The class will examine ancient and "primitive" consciousness as well as forms of society. (AY).

HIST 379  Language, Myth & Dreams  
3.000 Credits

An examination of the relationships between language, myth, dreams, and thinking processes; considers the work of such scholars as Ernst Cassirer, Noam Chomsky, and Freud; studies the nature of the mind from philosophical, psychological and literary perspectives. (AY).

HIST 381  Intell Hist of Modern Europe  
3.000 Credits

An examination of the intellectual currents from the scientific revolution, the Enlightenment, the currents of 19th and 20th century thought including romanticism, conservatism, liberalism, socialism, Darwinism. Includes analysis of the reactions to World War I, the Russian Revolution, and World War II. Readings include works by Descartes, Rousseau, Marx, Darwin, Zola, Freud, Kafka and Koestler. (AY).

HIST 383  Labor in America  
3.000 Credits

A survey of urban workers from colonial times to the present. Among the topics covered are changing standards of living, the experiences of industrial work, labor organization, and working-class politics. (YR).

HIST 384  Immigration in America  
3.000 Credits

A survey of the "immigrant experience" in the United States, from the early 19th century to the present. Particular attention is given to enduring problems of economic adjustment and cultural assimilation, and to the impact of immigration on the host society. (AY).

HIST 385  Modern France  
3.000 Credits

A history of France from the French Revolution to the present. The major emphasis is on the political evolution of France with some attention to social and economic development. (AY).

HIST 386  Compar History of Technology  
3.000 Credits

This course will examine the history of technology from a comparative perspective: studying the development and impact of technology in different societies during various historical eras. Topics include: irrigation control and the rise of ancient empires; technology's role in the industrial revolution; technological innovation and the pace of social change. Current issues and various analytical perspectives in the history of technology will also be examined. (OC).
HIST 387  Aspects of the Holocaust  
3.000 Credits  
A survey of how and why millions of Jews, Gypsies, Slavs, and political and "racial" enemies of the Reich were so quickly and determinedly slaughtered. (YR).

HIST 389  Nazi Germany  
3.000 Credits  
History of National Socialism, its goals and structure. Also addressed are the nature of the dictatorship; the role of the historian in interpreting the era and the use and evaluation of historical documents. (YR).

HIST 390  Topics in History  
3.000 Credits  
Problems and issues in selected areas of history. Title as listed in Schedule of Classes changes according to content. Course may be repeated for credit when specific topics differ. (OC).

HIST 391  Topics in History  
3.000 Credits  
Examination of problems and issues in selected areas of history. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

HIST 398  Independent Studies in History  
1.000 TO 3.000 Credits  
Readings or analytical assignments in history in accordance with the needs and interests of those enrolled and agreed upon by the student and instructor. (OC).

HIST 399  Independent Studies in History  
1.000 TO 3.000 Credits  
Readings or analytical assignments in history in accordance with the needs and interests of those enrolled as agreed upon by the student and instructor. (F,W).

HIST 4312  European Encounters, 1400-1800  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Coll of Arts, Sciences&Letters  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: HIST 300  
During the early modern period, merchants, explorers and travelers set out from the European West in unprecedented voyages of discovery, intensifying interaction between cultures and initiating contact with previously unknown civilizations. In this advances seminar we examine original documents (in English) as well as current scholarship about encounters between groups of Europeans and inhabitants of other parts of the world from the perspective of both sides. Comparing these contradictory (and often incompatible) accounts of the same events, provides a more comprehensive understanding of the process of European expansion, and of the strengths (and limitations) of historical sources. Additional assignments will distinguish the undergraduate and graduate versions of this course.

HIST 4401  Seminar: African Diaspora  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Sophomore  
Freshman  
Prerequisites: HIST 300 or AAAS 275 or HIST 345 or AAAS 345  
Research seminar on the history of the African Diaspora in the Atlantic World. This course covers examples of classic texts in the field, as well as significant new scholarship, with an emphasis on critical reading, analysis, and the development of an independent research project. Students gain a deeper understanding of the significance of the African Diaspora in the New World, derived from lectures and discussions providing an overview of this subject, as well as the micro views gleaned from sharing classroom presentation about students' individual research topics. The graduate version of this course includes weightier readings and assignments, with a research paper for potential publication.

HIST 4505  Feminism & Mod. Mid. East  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: COMP 106 or HIST 101 or HIST 300  
This course provides an analysis of the history, historiography, and sources for the study of feminism in the Middle East since 1800.

HIST 4515  Culture& Hist. in Mod. Iran  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: COMP 106 and (HIST 101 or HIST 113 or HIST 3511 or HIST 3512) and HIST 300  
Alongside the most influential academic studies of Iran, this course uses cultural sources (such as literature and film) as windows on the pivotal social and political movements in Iranian history since 1800. This study of cultural change factors in cultural debates inside Iran, the growth of the Iranian Diaspora, and the increased presence of Iranian culture in electronic media. Additional assignments distinguish the graduate version of this course from the undergraduate version.

HIST 4600  U.S. Cultural History  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: HIST 300  
The seminar concentrates on scholarly interpretations of U.S. history through a cultural lens. It features close analysis of classic texts in American cultural history as well as significant new works of scholarship, with an emphasis on critical reading, analysis, and historiography of the field. Students gain a deeper understanding of the cultural aspect of U.S. history and a familiarity with this mode of analysis, its guiding theories, newest trajectories and scholarly debates, and impact on the field of history as a whole. Additional assignments will distinguish the undergraduate and graduate versions of this course. Cannot receive credit for both HIST 490A and HIST 4600.
HIST 465  The Family in History  
3.000 Credits
An analysis of the emergence of the modern family from the 16th century to the present with focus on the history of childrearing, family size and structure, intra-familial and inter-generational relationships and population patterns. (OC).

HIST 4650  Sem in US Women's History  
3.000 Credits
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: HIST 300
Seminar on the historiography and key primary sources related to U.S. Women's History. The course covers examples of classic texts in the field as well as significant new works of scholarship, with an emphasis on critical reading, analysis, and historiography of the field. Students gain a deeper understanding of the field, its guiding concepts, foundational texts, newest trajectories, and impact on the field of history as a whole. The graduate version of this course includes weightier readings and assignments.

HIST 4677  Arab American Identities  
3.000 Credits
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: HIST 300
Extensive discussions and critical analysis of the main markers of Arab American identity formation from late nineteenth century to present. This seminar provides in-depth assessments of immigrant narratives from various sources and disciplinary approaches on specific racial, ethnic, and gender experiences within the larger U.S. context. Additional assignments distinguish the graduate version of this course from the undergraduate version.

HIST 4678  Middle Eastern Diasporas  
3.000 Credits
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: AAST 3150 or HIST 300
This course explores the diasporas of Arabs, Turks, Assyrians, and Iranians living in Europe and the Americas that have occurred since the 1880s. It pays careful attention to how "aspects of diaspora" shape, mimic, transect, and undermine the political and economic regimes of which they are part. The reception of Middle Eastern communities in different national contexts and historical periods receive special attention as do their adaptive strategies as religious, ethnic, gendered, and racialized minorities. Those enrolled in the graduate level of the course pursue additional readings and assignments.

HIST 485  History Internship  
3.000 TO 6.000 Credits
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior
The internship offers students experience in types of work available to liberal arts graduates. Regular meetings between the Internship Coordinator and the intern are required. Credit applies to the degree as a general elective and does not apply to any concentration. Maximum total hours credit: 12. Graded Pass/Fail. (F,W).

HIST 490  Sel Topics Seminar in History  
3.000 Credits
Prerequisites: HIST 300
Examination of problems and issues in selected areas of history. Title as listed in Schedule of Classes changes according to content. Course may be repeated for credit when specific topics differ. Primarily, but not exclusively, for undergraduate history concentrators. Students are introduced to current issues in the area of historical research and learn how to appreciate selected writings, which represent the best of recent scholarship. (OC).

HIST 498  Senior Honors Thesis  
3.000 Credits
Must be enrolled in one of the following Major fields of study:
History  
Must be enrolled in one of the following classes:
Senior  
Graduate
Two successive semesters of independent work on a major research paper under the direction of a member of the discipline and the program coordinator. (F,W).

HIST 499  Advanced Ind Studies in Hist  
1.000 TO 4.000 Credits
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: HIST 300
Readings and analytical writing in history, in accordance with the interests of the student and approval of the instructor. Students must submit a written proposal of study for approval. (OC).

HIST 4999  Senior Research Seminar  
3.000 Credits
Must be enrolled in one of the following Major fields of study:
History  
Must be enrolled in one of the following classes:
Senior  
Graduate  
Prerequisites: HIST 300
This seminar is required for the completion of an undergraduate degree in history. Students will develop an independent research paper under the direction of a member of the discipline and the program coordinator. (OC).

HIST 4999  Senior Research Seminar  
3.000 TO 4.000 Credits
Must be enrolled in one of the following Major fields of study:
History  
Must be enrolled in one of the following classes:
Senior  
Graduate  
Prerequisites: HIST 300
This seminar is required for the completion of an undergraduate degree in history. Students will develop an independent research paper that is well-grounded in the appropriate academic literature and using advanced research methodology. History concentrators may not use credit for both this course and HIST 497 or HIST 498 to meet their capstone requirement.

Humanities

The Humanities major is an interdisciplinary program. Students design an individualized course of study combining several disciplines in the Language, Culture, and Communications Department and in the Literature, Philosophy and the Arts Department, as well as History and other college-wide programs.

The major allows students to explore a variety of fields that cannot be covered within the confines of a single major, as the Humanities major has a strong interdisciplinary focus. Students follow a rigorous course of study while enjoying the stimulus of a program tailored to their special interests and goals.
PREREQUISITES TO THE MAJOR

Required courses ............................................................... 20 hrs
French, German, or Spanish 201 and 202 or MCL 205 &
206 ............................................................................. 8 hrs
Four courses, from two different disciplines, 100-200 level,
from the following areas:

- Art History
- Communication
- Comparative Literature
- English
- Journalism and Screen Studies
- History
- Linguistics
- Music History
- Philosophy

................................................................. 12 hrs

MAJOR REQUIREMENTS

9 hours (upper level) each in any three of the following areas…:27 hrs

- African American Studies
- Arabic Studies
- Art History
- Communication
- Comparative Literature
- English
- Journalism and Screen Studies
- French Studies
- German
- Hispanic Studies (Spanish)
- History
- Linguistics
- Music History
- Philosophy

9 additional hours in one of the two following tracks

Track A
- HUM 3975 Senior Thesis or Project ......................... 6 hrs
- One Humanities Upper Level Course ......................... 3 hrs

Track B
- HUM 399 Senior Independent Study ......................... 3 hrs
- Two Humanities Upper Level Courses ...................... 6 hrs

NOTES:

1. A maximum of 44 hours in any single discipline may
   count in the 120 hours required for graduation.
2. At least 15 of the 36 upper level hours in History
   must be elected at UM-D.
3. HUM/HIST 485 Internship cannot be used to fulfill
   major requirements.

MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level
credit in the courses labeled "Humanities"(HUM).

Humanities (HUM)

COURSE OFFERINGS

HUM 100 Introduction to Humanities
3.000 Credits

An introduction to the visual arts, music, and drama in western
and world societies. Through study of individual works, the
course teaches appreciation of the arts in their aesthetic and
technical qualities, and understanding of the arts as expressions
of diverse societies, varied historical conditions, and shared
human experiences. (YR).

HUM 170 Studies in Humanities
3.000 Credits

An interdisciplinary examination of selected key ideas in
contemporary western thought. Emphasis will be placed upon
how the issues and problems in question manifest themselves in
popular and high culture. (YR).

HUM 171 Styles in 19th Century
3.000 Credits

An introduction to the two principal styles of the 19th century,
romanticism and realism, viewed within the general evolution of
European civilization. After reading works of the classical
tradition, the class will study masterpieces that illustrate the
romantic and realist movements. (OC).

HUM 200 The Human Condition
3.000 Credits

The human condition as seen in selected works of philosophy
and literature. Typical issues: the meaning of life, the existence
of God, moral responsibility for human actions, and the role
of society in promoting or hindering human excellence. (YR).

HUM 201 Religions of the World
3.000 Credits

A study of religion in essence, in manifestation, and in
relationship with the other dimensions of culture; a treatment
of man's religious interests and the various ways in which he has
sought to pursue these interests. Surveys major world religions.
(OC).

HUM 221 Great Books I: Ancient World
3.000 Credits

Introduction to masterpieces of Western world literature from
the ancient world. Readings include the Bible, Iliad, Odyssey,
Greek drama, and Roman authors. (YR).

HUM 222 Gr Bks II: Midd Ages and Ren
3.000 Credits

Introduction to masterpieces of Western world literature from
the Middle Ages and Renaissance. Readings include Dante,
Chaucer, Wolfram, Cervantes, Shakespeare, Moliere, and
Racine. (YR).

HUM 223 Gr Bks III: Modern Era
3.000 Credits

Introduction to masterpieces of Western world literature from
the Modern Era. Readings include Swift, Voltaire, Rousseau,
English romantic poets, fiction and drama of the 19th and 20th
century. (YR).

HUM 240 Film and Society
3.000 Credits

A survey of the major genres of film, chiefly in historical and
political perspective, but also in light of important intellectual
frameworks (e.g., feminism, psychoanalytical theory). The films
selected, both Western and non-Western, will be examined both
for their visual codes of meaning and for their wider role in
developing a powerful social language in various cultural
contexts. (OC).

HUM 248 Introduction to Screen Studies
3.000 Credits

This course will introduce students to the development of world
cinema by integrating the aesthetics of film with its technology,
and its social and economic milieu. It will train the students in
analyzing the formalist qualities of the medium, and in
understanding the evolution of its various genres and styles.
(YR).
HUM 261 Honors: West Cult I: Origins
3.000 Credits
Prerequisites: HIST 365

First in a series of four courses. An interdisciplinary course describing the nature of the Western classical and Biblical traditions. Will examine Western values, attitudes, history, art history, the roots of scientific thought, logic, and social institutions such as the family and the state. Included will be works of literature, history, philosophy, and art history. (YR).

HUM 262 Honors: Western Culture II
3.000 Credits
Prerequisites: HIST 365

Second of four courses on Western Civilization required of all Honors students. Course covers the period of the Middle Ages, Renaissance, and Reformation. Focus is on ways in which the Biblical and Classical traditions are preserved, adapted, transformed, or discarded under the pressures of new social and political formations. Materials will be drawn from literature, philosophy, political theory, and art of the period. (YR).

HUM 263 Honors: Western Cult III
3.000 Credits
Prerequisites: HIST 365

Third of four courses on Western Culture required of all Honors students. Course covers period from 17th to 19th centuries. Focus is on the emergence of scientific thought, Enlightenment political theory, Romantic individualism, and the great 19th-century intellectual revolutions of Darwinism, Marxism, and feminism. Material will be drawn from literature, philosophy, and political and scientific writings of the period. (YR).

HUM 264 Honors: West Cult IV: Mod Era
3.000 Credits
Prerequisites: HIST 365

Fourth of four courses in Western Culture required of all Honors students. Course covers period from late 19th century to present. Focus is on selected major issues of Western civilization in the modern era: science and human values, bureaucratic and totalitarian societies, psychoanalytical thought, feminism, nihilism, existentialism. (AY).

HUM 270 Intro to Africana Studies
3.000 Credits

This gateway course in the AAAS Minor will engage the students in the intellectual issues, historical perspectives and cultural debates in African and African American Studies. Using a trans-disciplinary approach the AAAS faculty teaching this course as a team will draw from the disciplinary strengths of the Humanities, the Social Sciences and the Behavioral Sciences. Texts will include literature, film, music, art, theater, and other forms of popular and folk culture. The course will routinely invite speakers and performers to the class and engage the campus community in these events. (YR)

HUM 290 Topics in Humanities
1.000 TO 3.000 Credits

Examination of problems and issues in selected areas of the humanities. Title as listed in Schedule of Classes will change according to content. Course may be repeated when specific topics differ. (OC).

HUM 303 Intro to Women's & Gender Stud
3.000 Credits

May not be enrolled in one of the following Classes: Freshman

This course provides an interdisciplinary overview of the key theories and topics in Women's and Gender Studies. Special attention is given to how gender intersects with class, race, nationality, religion and sexuality to structure women's and men's lives. Students are also introduced to methods of gender analysis and will begin to apply these methods to topics such as women and health, gender roles in the family, violence against women, and gendered images in the mass media.

HUM 304 Studies in Detroit Culture
3.000 Credits

This course is an attempt to define a modern cultural history of Detroit. Taught by two faculty members, the emphasis of the course will vary but the following aspects of the city's cultural history will be covered in some detail: its literature, arts, music and architecture; its social conditions and broader American culture context. (OC).

HUM 311 Art of China
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or HUM 100 or HUM 150 or HUM 170 or HUM 171 or HUM 200 or HUM 201 or HUM 221 or HUM 222 or HUM 223 or HUM 240 or HUM 261 or HUM 262 or HUM 263 or HUM 264 or HUM 275 or HUM 290

An introduction to the civilization of traditional China through the historical presentation of its art forms, literary achievements, and philosophical structures. The course will survey the Buddhist, Daoist, and Confucian content of Chinese art and culture from the Shang to the Qing dynasties.

HUM 312 Art of Japan
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or HUM 100 or HUM 150 or HUM 170 or HUM 171 or HUM 200 or HUM 201 or HUM 221 or HUM 222 or HUM 223 or HUM 240 or HUM 261 or HUM 262 or HUM 263 or HUM 264 or HUM 275 or HUM 290

An introduction to Japanese culture through the historical presentation of its varied art forms. Drama, music and the fine arts are studied within the context of Buddhist and Shinto religious practices.

HUM 313 Chinese Painting
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or HUM 100 or HUM 150 or HUM 170 or HUM 171 or HUM 200 or HUM 201 or HUM 221 or HUM 222 or HUM 223 or HUM 240 or HUM 261 or HUM 262 or HUM 263 or HUM 264 or HUM 275 or HUM 290

A historical survey of the painting of China from the earliest examples found in tombs through works influenced by the West from the modern period. Students will be introduced to Eastern philosophy and relevant literary genres which provide a context for the development of the Chinese painting tradition.

HUM 315 Early Chinese Art and Archaeol
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

An examination of the art and architecture of early China (Neolithic through Eastern Han). Recent excavations that have
significantly changed our view of the early period will be given emphasis. Students will analyze relevant literary and philosophical texts in translation to enhance understanding of the cultural context.

**HUM 321 Popular Culture** 3.000 Credits
This course examines the art forms of contemporary popular culture, including rock 'n roll, movies, television, advertising design, and commercial architecture. Our critical inquiry emphasizes the development of the aesthetics and the myths of our modern mass media environment, as well as relationships between popular and "high" culture. (AY).

**HUM 3335 Intro to Gospel Music** 3.000 Credits
This course explores the history and aesthetics of Black sacred music within cultural context. Major figures (Thomas A. Dorsey, Mahalia Jackson, The Winans Family, Kirk Franklin), periods (slavery, Great Migration, Civil Rights movement), and styles (folk and arranged Negro spirituals, congregational songs, and gospel songs - traditional to contemporary) will be studied through recording, videos, film and at least one field experience. Underlying the course is the theory (Mellonee Burnim and Pearl Dorsey, Mahalia Jackson, The Winans Family, Kirk Franklin), periods (slavery, Great Migration, Civil Rights movement), and styles (folk and arranged Negro spirituals, congregational songs, and gospel songs - traditional to contemporary) will be studied through recording, videos, film and at least one field experience. Underlying the course is the theory (Mellonee Burnim and Pearl Williams-Jones) that gospel music is an expression of African American culture that fuses both African and European elements into a unique whole. (OC).

**HUM 335 Women in Medieval Art** 3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or WGST 275 or WGST 303 or HUM 275 or HUM 303 or ANTH 275 or ANTH 303 or PSYC 275 or PSYC 303 or SOC 275 or SOC 303 or WST 275
Women have often been regarded as the second sex of the middle ages due to the misogynistic attitudes of that era. Recent scholarship, however, has unearthed a significantly more complex picture. Through a study of visual representations of women in medieval art, this course will examine women's roles in the creation and patronage of art and literature, economic and family issues, and women's participation in new and innovative forms of religious piety.

**HUM 337 Women Musicians/West Mus Hist** 3.000 Credits
May not be enrolled in one of the following Classes: Freshman
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MHIS 310 or MHIS 311 or MHIS 312 or MHIS 313 or MHIS 331 or MHIS 340 or MHIS 341 or MHIS 342 or MHIS 390 or MTHY 100 or MTHY 101 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390
Through a historical survey of female musicians from the Middle Ages to the present day, this course takes a critical look at theories of creativity and professionalism as they relate to female musical production. The course deals with women in European "art music" traditions and also in jazz and poplar music. Social and cultural norms dictating appropriate female involvement with music are examined. The historical approach will serve to reveal ways in which terms such as professionalism and virtuosity have continually shifted and changed in reference to female musical performance. The course challenges students to re-think many of the commonly accepted gender-based descriptions of particular genres and elements of music through listening and musical analysis.

**HUM 343 Opera** 3.000 Credits
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MHIS 310 or MHIS 311 or MHIS 312 or MHIS 313 or MHIS 331 or MHIS 340 or MHIS 341 or MHIS 342 or MHIS 390 or MTHY 100 or MTHY 101 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390
An introduction to the study of the musical genre of opera through consideration of major operas based upon literary and dramatic works. Covers examples of operas of all eras, from the time of Monteverdi to present. (OC).

**HUM 3435 Adaptations of Literary Texts** 3.000 Credits
May not be enrolled in one of the following Classes: Freshman
Prerequisites: (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239) and (COMP 106 or COMP 220 or COMP 270 or COMP 280)
This course explores the adaptation of literary texts in a variety of literary genres (poetry, drama, fiction) to other artistic mediums (film, graphic novels/comics, paintings, etc.). Moving beyond limited comparisons of "good" originals and "bad" adaptations, this course focuses on the dialogue among multiple versions of the same story across a range of historical periods, asking how and why adaptations modify their sources in a particular manner. This course addresses the difference between adaptation and appropriation as well as imitation, quotation, allusion, pastiche, and parody.

**HUM 346 Bible and Western Tradition** 3.000 Credits
An examination of Biblical literature in various English translations, with emphasis on genres and the use of Biblical materials in European and American literature, art, and music. (OC).

**HUM 348 Warriors, Lovers, and Saints** 3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)
An in-depth examination of various personalities of the Middle Ages, both historical and fictional, who are distinctive for their martial prowess, their reputation as lovers, their piety, or some combination of these traits. Attention to these figures (e.g., Roland, Tristan, St. Augustine, and Abelard) will enable the class to consider important medieval norms of behavior, such as chivalry, courtly love, and Christian faith.

**HUM 349 Bible In/As Literature** 3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240)
This course will study selected readings from the Bible, first in regard to their own literary, historical, and cultural contents, and then in regard to their reception, interpretation, and reapplication by later literary tradition. Biblical selections may cover both the Old and New Testaments as well as Apocryphal traditions, while readings from later non-biblical texts will be drawn from various literary periods.
This course is an interdisciplinary approach to the concepts of urban development and literary, visual and cultural responses to the process of urbanization mainly in Rome and Paris. The readings will illustrate how the city shaped the writers' creativity, as well as how their works interpret urbanization.

HUM 356  Reading Urban Monstrosity
3.000 Credits
Prerequisites: (COMP 106 or CPAS 40 or COMP 220 or COMP 280 or COMP 270) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

This course questions the literary techniques and forms the English writers developed between 1660 and 1900 to characterize and imagine London to be a unified community and to counter the growing perception of London as a "monstrous city." This image of "the English-speaking City" as an uncontrollable monster may be explored in writings by Daniel Defoe, Jane Austen, Elizabeth Gaskell, Robert Louis Stevenson, Charles Dickens, Thomas Hardy, and Joseph Conrad.

HUM 357  National Cinemas
3.000 Credits
Prerequisites: FILM 240 or HUM 240 or FILM 248 or HUM 248 or ENGL 248

This course will introduce students to the national cinema of a select country. In contrasting the evolution of global cinema with the dominant genres and conventions of Hollywood, the course will enable students to critically examine non-Hollywood narratives; the interaction of various nationalist movements within the institution of cinema; and the ways in which world cinema has been inflected by various indigenous performance practices and other visual representations. (OC).

HUM 371  Philosophy in Literature
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 411 or PHIL 442 or PHIL 485 or PHIL 490

An exploration of philosophical problems as they are encountered in works of literature. Students electing this course must have successfully completed a previous course in philosophy or have permission of the instructor. (OC).

HUM 385  Black Cinema
3.000 Credits

The course will examine selected films from African American and African film traditions in order to analyze how their cultural production is responsive to the conditions of social oppression, economic underdevelopment, and neo-colonialism. How film traditions define "Black aesthetics" will also be discussed. (AY).

HUM 388  W. African Music: Trad.&Glob.
3.000 Credits
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or AAAS 106 or AAAS 275 or HUM 100 or HUM 270

West African popular music contains a unique mixture of African, Cuban, European and American influences. With the advent of radio and recording, music that was once locally based is now part of a national and international popular music industry. This course offers an overview of modern West African music, both traditional and popular. The course begins with an introduction to traditional West African instruments and musical genres. Next, there is an exploration of the fusion of traditional African styles with European, Cuban and American styles during and after the colonial era. The course culminates with an examination of the contributions of West African musicians to the World Music scene, focusing on issues of representation and Fair Trade.

HUM 389  Nazi Germany
3.000 Credits

The course traces the development of the Nazi movement from its ideological roots to Hitler's dictatorship, 1933-1945. Political events are interpreted in their social and cultural context to provide a comprehensive view of National Socialism. (OC).

HUM 390  Topics in Humanities
1.000 TO 3.000 Credits

Three Writers, Three Worlds: The Poetry of Eliot, Cesaire and Neruda. This course offers upper division students an intensive study of the works and lives of three poets who are considered among the greatest in their respective cultures and in the world: Pablo Neruda, Aime Cesaire, and T. S. Eliot. This will be an exploration of the artistic and aesthetic sensibilities of these poets, their development as intellectuals, the experiences that shaped their worldviews, and their engagement with significant historic movements or moments of the 20th Century.

HUM 395  Japanese Art I
4.000 Credits

Japanese art from prehistoric Jomon period to end of Edo period, including painting, sculpture, architecture, and applied arts. Cultural developments on Asian mainland will be treated to provide proper placement of Japanese art within greater East Asian cultural context. Taught at the Japan Center for Michigan Universities, Hikone, Shiga Prefecture, Japan. (F).

HUM 396  Japanese Art II
4.000 Credits
Prerequisites: HUM 395

Continuation of Japanese Art I. Historical development of Japanese painting from Asuka to Edo periods. Approach both chronological and thematic in nature. Secular and religious painting will be discussed. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Prefecture, Japan. (W).

HUM 397  Humanities Thesis/Project
6.000 Credits
Must be enrolled in one of the following classes: Senior

The Humanities Thesis/Project is the culmination of the Humanities concentration, normally completed in the Senior year. Students will develop either a thesis or a research project designed to integrate and deepen their study of the three disciplines chosen for their concentration. The thesis will be done under the direction of one or more faculty members in their areas of concentration. The research project will normally be done in collaboration with a faculty member or with an external organization, as approved by the student's project supervisor. Restricted to students in the Humanities concentration who have
completed nine hours of upper-division courses with a "Humanities" listing. (F,W,S).

**HUM 398 Independent Studies in Hum**
1.000 TO 3.000 Credits

Readings or analytical assignments in the humanities in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor. (F,W).

**HUM 399 Independent Studies in Hum**
1.000 TO 3.000 Credits

Readings or analytical assignments in the humanities in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor. (F,W).

**HUM 409 Feminist Theories**
3.000 Credits
Prerequisites: WGST 275 or WST 275 or SOC 200 or SOC 201 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

This course examines the different perspectives that feminist theorists have offered to analyze the unequal conditions of women's and men's lives. Students taking this course will develop an understanding of how theory functions as a way to know, understand and change the world. They will also be provided with a lens for comparing the assumptions and implications of alternative theoretical perspectives. A particular emphasis of this course is on theorizing the interrelationships among gender, race, class, sexuality and nationality. Course material includes applications of feminist theory to issues such as gender identity formation; sexuality; gender, law and citizenship; women and work; and the history and politics of social movements. Students will not receive credit for both HUM 409 and HUM 509. (AY)

**HUM 415 Existentialism and Its Sources**
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

An exploration of existentialism through the study of literary and philosophical texts. Particular themes such as freedom, commitment, alienation, and death will be considered in an attempt to formulate an existential conception of the human condition. (OC).

**HUM 433 Writing Women in Renaissance**
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

This course will be taught in English, and will focus on the influence of Italian literary models for the construction of female literary types as well as female voices in France and Italy from 1300 to about 1600. Italian authors studied include three very influential Florentines, Dante, Petrarch and Boccaccio, as well as Castiglione and Ariosto. We will read women poets, patrons, prostitutes and queens from Italy and France such as Veronica Gambara, Isabella di Morra, Vittoria Colonna, Christine de Pizan, Louise Labe, and Marguerite de Navarre. At issue will be women's roles and women's images in city and court culture during the early modern period, and the interaction of their writings with the literary canons of Italy and France. (OC).

**HUM 434 Renaissance and Baroque Rome**
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106

The return of the papacy in 1420 initiated the reemergence of Rome as a major cultural center. This course examines painting, sculpture, architecture, and urban planning in Rome from the 15th to the 17th century, including the work of Raphael, Michelangelo, Bernini, Borromini, and Caravaggio. Topics to be explored include the birth of Renaissance archaeology and antiquarianism; humanism and the papal curia; urban renewal and conservation; pilgrimage and sacred topography; the myth of Rome; architecture of churches, villas, and palaces; tourism and the city as spectacle. This course is structured as a seminar that is writing and research-intensive. It is an interdisciplinary course that includes readings in literature, religion, urbanism history of art and architecture, and intellectual history.

**HUM 457 American Cinema**
3.000 Credits
Prerequisites: ENGL 248 or HUM 248 or FILM 248 or JASS 248

This course will analyze how Hollywood as the nation's dream factory has manufactured fantasies and cultural myths that have constructed the image of American citizenship, both for Americans and non-Americans. It will establish the ideological function of Hollywood texts as providing unifying symbols for a fragmented society. (YR).

**HUM 467 Script-Writing Workshop**
3.000 Credits
Prerequisites: JASS 310 or COMM 310 or COMP 310 or ENGL 310

This writing intensive course will train students to compose a film script, focusing on the substance, structure, and style of an original screenplay. The course will be conducted as a workshop in which students will first study classic scripts (and films based on these) of the film-school generation of directors, then model scenes and sequences of their own scripts on the principles of the above texts, and finally, write their own respective film stories in accordance with an appropriate narrative structure and design. (YR).

**HUM 470 Black Women / Lit, Film, Music**
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters

May not be enrolled in one of the following Classes:
Freshman

Prerequisites: FILM 240 or FILM 248 or FILM 385 or AAAS 239 or AAAS 275 or WST 275 or WGST 275 or WST 370 or WGST 370 or HUM 221 or HUM 222 or HUM 223 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 237 or ENGL 239 or ENGL 248 or ENGL 200 or ANTH 275 or HUM 275 or PSYC 275 or SOC 275 or ANTH 303 or HUM 303 or PSYC 303 or SOC 303 or WGST 303
This course will examine works produced by Black women authors, activists, filmmakers and musical performers in order to determine the methods they have incorporated in order to challenge and eradicate the prevailing stereotypes about Black women while advancing their own personal and racial agendas. It will also focus on the extent to which race, gender, and class have shaped the creative work of Black women. Students will be required to read, discuss, analyze and write their own responses to the works of such firebrands as author Zora Neale Hurston, activist Ida B. Wells, filmmaker Julie Dash, and singer Billie Holliday.

**HUM 477 Ethnographic Film**

3.000 Credits  
Prerequisites: FILM 248 or ENGL 248 or HUM 248 or ANTH 101 or JASS 248

This course will analyze ethnographic films as a medium for the construction of meaning in and across cultures. It will teach students to understand how the putatively "real" content of documentary film creates a mixture of fantasy, news and "science." Covering texts as varied as National Geographic photographic layouts, traditional ethnographic films made by anthropologists, and auto-ethnographies of cultural groups such as native Americans and the Trobriand Islanders of Papua, New Guinea, the course will aim to deconstruct such oppositions as indigene vs. alien, us vs. them, and self-vs. other. Students cannot receive credit for both HUM 477 and HUM 577. (YR).

**HUM 485 Internship**

3.000 TO 6.000 Credits  
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior

The Humanities Internship offers students experience in types of work available to liberal arts graduates. Regular meetings between the Humanities Internship Coordinator and the intern are required. Credit applies to the degree as a general elective and does not apply to any concentration. Maximum total hours credit: 12. Graded Pass/Fail. (F,W).

**HUM 490 Topics in Humanities**

3.000 TO 4.000 Credits

Examination of problems and issues in selected areas of the humanities. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

**HUM 497 Independent Studies in Hum**

1.000 TO 3.000 Credits

Readings or analytical assignments in humanities in accordance with the needs and interests of those enrolled and agreed upon by student and advising instructor. (YR).

**HUM 499 Directed Research**

1.000 TO 3.000 Credits

See Humanities Concentration Advisor for more information.

### Integrated Science

Integrated Science is a degree designed for students seeking to teach science in high schools. The sixty credit hour degree meets the State of Michigan’s requirements for 12 credit hours each in Biology, Chemistry, Earth Science and Physics. An additional 12 credit hours in any one of these areas provides the required minor in science. Students successful completing this program and passing the Michigan Test for Teacher Certification in Integrated Science (secondary) will meet the standards for the ‘highly qualified’ designation. This degree is only for those students who are also seeking a certificate in secondary education from the College of Education, Health, and Human Services. It is also a degree intended for students who wish to teach in smaller school districts. Students seeking employment in large districts should consider majoring in Biology, Chemistry, Earth Science or Physics and minorin in another of these 4 areas.

The degree requires that certain courses in each of the four areas be taken. The remaining hours will consist of electives from the list of courses below. Other courses may be possible. Students should consult with their advisor about course selection. In addition to regularly offered courses in Natural Sciences, students must also elect at least one of the NSCI 331, 332 or 333 courses. These latter courses will also count towards the 12 hrs for the minor.

Students will need to consult with advisors in the College of Education, Health, and Human Services in order to meet the certification requirements for teaching in secondary schools.

### Integrated Science core (48 credit hours)

#### Biology (12 credit hours)

- **BIOL 130 Introduction to Organismal and Environmental Biology** ................. 4 hrs
- **BIOL 140 Introduction to Molecular and Cellular Biology** .......................... 4 hrs

One or more courses from the list below to complete 12 hrs

- **BIOL 301 Cell Biology** ................................................. 4 hrs
- **BIOL 304 Ecology** .................................................... 4 hrs
- **BIOL 306 General Genetics** ........................................... 3 hrs
- **BIOL 320 Field Biology** .............................................. 4 hrs
- **BIOL 324 Invertebrate Zoology** ....................................... 4 hrs
- **BIOL 333 Plant Biology** ............................................. 4 hrs
- **BIOL 385 Microbiology** ................................................ 4 hrs
- **BIOL 419 Behavior and Evolution** ..................................... 3 hrs
- **NSCI 333a Inquiry: PBL in Life Science** ............................... 3 hrs

#### Chemistry (12 credit hours)

- **CHEM 134 or CHEM 144 General Chemistry I** ......................................... 4 hrs
- **CHEM 136 or CHEM 146 General Chemistry II** ........................................ 4 hrs
- **CHEM 225 Organic Chemistry I** .................................................. 3 hrs

One or more courses from the list below to complete 12 hrs

- **CHEM 226 Organic Chemistry II** ............................................ 3 hrs
- **CHEM 227 Organic Chemistry Lab** .......................................... 2 hrs
- **CHEM 303 Inorganic Chemistry I** ............................................. 3 hrs
- **CHEM 344 Quantitative Analysis** .............................................. 4 hrs
- **NSCI 331 b Inquiry: Physical Science II** ....................................... 3 hrs

#### Earth Science (12 credit hours)

- **GEOL 118 Physical Geology** .................................................. 4 hrs
- **GEOG 203 Climatology** ...................................................... 3 hrs
- **PHYS 130 Introduction to Astronomy** ............................................. 3 hrs
- **PHYS 131 Astronomy Lab** ...................................................... 1 hr
One or more courses from the list below to complete 12 hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>GEOG 310</td>
<td>Economic Geography</td>
<td>3 hrs</td>
</tr>
<tr>
<td>GEOL 218</td>
<td>Historical Geology</td>
<td>4 hrs</td>
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<tr>
<td>GEOL 305</td>
<td>Introduction to GIS</td>
<td>4 hrs</td>
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<tr>
<td>GEOL 340</td>
<td>Remote Sensing</td>
<td>4 hrs</td>
</tr>
<tr>
<td>GEOL 342</td>
<td>Oceanography</td>
<td>3 hrs</td>
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<tr>
<td>GEOL 370</td>
<td>Environmental Geology</td>
<td>3 hrs</td>
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<tr>
<td>GEOL 372</td>
<td>Energy Resources</td>
<td>3 hrs</td>
</tr>
<tr>
<td>GEOL 377</td>
<td>Field Methods in Geology</td>
<td>1 hr</td>
</tr>
<tr>
<td>NSCI 332</td>
<td>Inquiry: MI Earth Science</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Physics (12 credit hours)**

- PHYS 125 or PHYS 150 | Introductory or General Physics I | 4 hrs |
- PHYS 126 or PHYS 151 | Introductory or General Physics II | 4 hrs |
- PHYS 305 | Contemporary Physics | 3 hrs |
- PHYS 360 | Instrumentation for Scientists | 3 hrs |
- PHYS 401 | Mechanics | 3 hrs |
- PHYS 403 | Electricity and Magnetism | 3 hrs |
- PHYS 405 | Optics | 3 hrs |
- PHYS 406 | Thermal and Statistical Physics | 3 hrs |
- NSCI 331 | Inquiry: Physical Science II | 3 hrs |

**Minor in one of the four areas above (12 credit hours)**

Students will select 12 additional upper level credit hours in one of the four areas listed above. Any upper division courses accepted for credit towards a degree in the area will meet this requirement.

**Notes:**

- Up to three credit hours of independent study in one of the four areas listed above may be applied towards the minor.

- At least one course from NSCI 331, NSCI 332, or NSCI 333 must be elected.

- The credits for NSCI 331 can be attributed to both Chemistry and Physics.

**International Studies**

The interdisciplinary major in International Studies combines foreign language and cultural studies with a thorough grounding in a professional area such as business and management, economics, computer programming, communication, or political science. The major is designed to prepare students for careers in international relations and business or other fields with an international dimension.

The major consists of three components at the 300/3000, 400/4000 level:

I. Foreign Language and Cultural Component (18 hours) devoted to foreign language, culture, and civilization (including optional study abroad)

II. Professional Component (generally 15 hours plus lower division prerequisites) devoted to the basic skills of art administration, business and management, communications, computer and information science, economics, engineering environmental studies, natural sciences, or political science (international affairs)

III. Cognates (nine hours) devoted to studies (and optional internship experiences) which will provide the larger international context and additional useful skills to coordinate the subjects of Components I and II.

This program is also eminently suitable as a second major for students who want to add a strong international component to their major field of interest. In this case, courses taken for their first major may also fulfill “Professional Component” requirements in International Studies; e.g., students majoring in art administration, business and management, communications, computer and information science, economics, engineering environmental studies, natural sciences, or political science (international affairs) can add International Studies as a second major by fulfilling requirements of Components I (Foreign Languages and Culture) and III (Cognates) and counting their first major as Component II (Professional).

**PREREQUISITES TO THE MAJOR**

For prerequisites check Components I and II under requirements for major.

**MAJOR REQUIREMENTS**

**Component I. Foreign Language and Culture**

(French, German or Spanish)

**Prerequisite**

Fourth-semester proficiency (202 level) or equivalent in French, German or Spanish

**Required courses**

- Language 301 and 302 Advanced Conversation and Composition I and II
- Language 305 or 306 (or SPAN 310 for SPAN 305; FREN 408 for FREN 305) Language of Business
- One culture and/or civilization course: FREN 336, 337, 338, 339
- GER 376, 377, 390 (by petition)
- SPAN 356, 357, 358

Two additional upper-level courses in language, civilization/culture or literature

A literature course in the chosen language is highly encouraged.

**Notes**

Students are encouraged to spend a semester or year in one of the many approved study-abroad programs.

Students who wish to study two foreign languages within the framework of the International Studies Program should see the International Studies Director to design an acceptable balanced curriculum.

Normally students will not be permitted to count the Humanities Internship (HUM 485) as a part of the above concentration requirements. They are encouraged to elect an internship as part of their Support Studies.

**Component II. Professional Studies**

**Option A. Business and Management**

**Prerequisites**

- ACC 298 Principles of Accounting | 3 hrs
- ECON 201 Principles of Macroeconomics | 3 hrs
- ECON 202 Principles of Microeconomics | 3 hrs
- ITM 310 Info Sysytems in Management | 3 hrs
- ITM 311 Mgmt Information Sys Lab | 1 hr
- MATH 104 Precalculus: Management, Life, and Social Sci | 4 hrs
- MATH 105 Pre-calculus | 4 hrs
Required courses .......................................................... 15 hrs
BE 401 Managerial Economics .................................... 3 hrs
MKT 352 Marketing Principles and Policies .................. 3 hrs
OB 354 Behavior in Organizations .......................... 3 hrs

Two courses from: ..................................................... 6 hrs
BA 330 Managerial Communication
BA 400 Corporate Responsibility
COMM 340 Professional Communication
COMM 430 International Communication
IB 486 Seminar in International Business
MKT 457 International Marketing

Option B. Computer and Information Science
Prerequisites ............................................................ 16 hrs
MATH 115 Calculus I ................................................. 4 hrs
CIS 150 Computer Science I .................................... 4 hrs
OR
CCM 150 Computer Science I .................................... 4 hrs
CIS 275 Discrete Structures .................................... 4 hrs
CIS 200 Computer Science II .................................. 4 hrs

Required Courses ......................................................... 12 hrs
CIS 350 Data Structures ......................................... 3 hrs

Three additional CIS upper-level courses (300-level or above excluding CIS 399 and 499) .... 9 hrs

Option C. Economics
Prerequisites ......................................................... 13 hrs
ACC 298 Principles of Accounting ............................. 3 hrs
ECON 201 Principles of Macroeconomics .................. 3 hrs
ECON 202 Principles of Microeconomics .................. 3 hrs
MATH 104 Pre-Calculus: Management, Life and Social Science .......................... 4 hrs
OR
MATH 105 Pre-Calculus .............................................. 4 hrs

Required courses .......................................................... 15 hrs
ECON 447 International Finance .............................. 3 hrs
ECON 448 International Trade ................................... 3 hrs

One additional course from the following ............... 3 hrs
ECON 442 Economic Development
ECON 444 Economics of the Middle East
ECON 362 European and International Economic History

Two additional courses from the following ........ 6 hrs
ECON 301 Intermediate Macroeconomics
ECON 302 Intermediate Microeconomics
ECON 305 Economic Statistics
ECON 442 Economic Development
ECON 362 European and International Economic History
ECON 4015 Introduction to Econometrics

Option D. Museum Studies
Prerequisites .............................................................. 12 hrs
ARTH 101 Western Art before 1400 .......................... 3 hrs
ARTH 102 Western Art after 1400 ......................... 3 hrs
ARTH 103 Arts of Asia .............................................. 3 hrs
OR
ARTH 106 Survey of Western Architecture ................ 3 hrs

Required courses ............................................................ 15 hrs
Pick four courses from four different areas ............... 12 hrs
Asian/Non-Western
ARTH 311 Art of China
ARTH 312 Art of Japan
ARTH 313 Chinese Painting
ARTH 315 Early Chinese Art & Archeology
ARTH 384 Islamic Architecture
ARTH 385 Decorative Arts of the Islamic Mid East
ARTH 416 Early Mod Jpn Paint & Wood Prints
Ancient and Classical
ARTH 319 Egyptian Art
ARTH 321 Greek Art
ARTH 322 Roman Art
ARTH 327 Myth and Ritual in Classical Art
ARTH 425 Women in Classical Antiquity
ARTH 426 City of Ancient Rome
ARTH 427 Greek Architecture
ARTH 428 Roman Art and Memory

Medieval
ARTH 331 Early Christian and Byzantine Art
ARTH 332 Early Medieval and Romanesque Art
ARTH 333 Gothic Art and Architecture
ARTH 334 The 14th Century
ARTH 335 Women in Medieval Art

Renaissance & Baroque
ARTH 341 Early Renaissance Art
ARTH 342 High Renaissance Art
ARTH 343 Northern Renaissance Art
ARTH 344 Italian Renaissance Sculpture
ARTH 351 Southern Baroque
ARTH 352 Northern Baroque
ARTH 434 Ren. & Baroque Rome
ARTH 454 Rembrandt

Modern
ARTH 360 Art of Glass
ARTH 361 American Art
ARTH 362 Impressionism and Post-Impressionism
ARTH 363 Early Twentieth-Century Art
ARTH 364 Later Twentieth-Century Art
ARTH 365 Modern Architecture
ARTH 366 The Modern Print
ARTH 367 Contemporary Art
ARTH 368 American Photography
ARTH 375 Urban Design Perspectives
ARTH 469 Collage, Montage, Assemblage

Also required
ARTH 410 Art Administration Seminar I ............... 3 hrs

Option E. Political Science (International Affairs)
Prerequisites ............................................................. 12 hrs
POL 201 Introduction to Comparative Government .... 3 hrs
ECON 201 Principles of Macroeconomics ................ 3 hrs
ECON 202 Principles of Microeconomics ............... 3 hrs

One of the following courses ......................... 3 hrs
Programming: CIS 150 or CCM 150
Analysis: POL 300
Statistics: MATH 363 or PSYC 381

Required courses ............................................................ 15 hrs
Five of the following 3-hour courses or other Political Science courses with a clearly international dimension:
POL 341 Canadian Politics
POL 350 Politics of Developing Areas
POL 355 Religion and Politics
POL 361 American Foreign Policy
POL 371 Problems in International Politics
POL 375 The Great Powers in Competition and Conflict
POL 385 Middle East Politics
POL 387 Southern Africa
POL 450 Revolution
POL 451 Peace and War
POL 471 American Foreign Policy I
POL 472 American Foreign Policy II
POL 473 International security Affairs
POL 481 Terrorism and National Security
LIBS 364 The European Union

Note: Normally, students will not be permitted to count a Political Science Internship (POL 494-497) as part of the above concentration requirements. They are encouraged to elect an internship as part of their Support Studies.

Option F. Environmental Studies

Prerequisites ................................................................. 9 hrs
3 courses to be chosen from at least two of the following areas
   ESCI 275 Introduction to Environmental Science
   OR
   ESCI 301 Environmental Science
   ENST 201, 203, 204; GEOL 118
   One computing course from the following: CIS 112 or CIS/CCM 150 (or other CIS course by petition)

Required courses .................................................................. 15 hrs
   ENST 301 Concepts of Environmentalism .......... 3 hrs
   ENST 305 Environmental Instrumentation and analysis .......... 3 hrs

Three additional courses from the following 9 hrs
   ENST 300 Urban Geography
   ENST 325 Environmental Politics
   ENST 330 Land Use Planning
   ENST 340 Remote Sensing
   ENST 350 Environmental Law
   ENST 351 Environmental Economics
   ENST 365 Environmental Psychology
   ENST 385 Environmental Internship
   ENST 390 Topics in Environmental Studies
   ENST 474 The Environment as an Educational Resource
   ENST 486 Environmental Interpretation

Note: By petition, courses in Environmental Science (some of which have additional prerequisites) may be substituted.

Option G. Natural Sciences

Required courses
Fulfillment of all requirements for a minor in any natural science program (i.e., a minimum of 12 upper-level hours plus all lower-division prerequisites),
OR
Fulfillment of all major requirements in any natural science program.

Option H. Engineering

Required courses
Fulfillment of all requirements for a degree in any of the Engineering disciplines will satisfy all Component II (Professional) requirements for the International Studies major.

Due to the high number of prerequisites needed to get into upper-level engineering classes, there is no regular 15-hour (professional) component for the various engineering disciplines.

Option I. Communication

Prerequisite
   SPEE 101 Principles of Speech Communication... 3 hrs

Required courses
   COMM 430 International Communications............. 3 hrs
   Plus twelve hours taken in two different tracks listed below. Six hours must be taken in one of the four tracks. The remaining six hours must be taken from a second track. Of the 12 upper-level hours, three hours must be in a speech course and three hours in a Communications writing course.

*Indicates a Communications writing course.

Track A: Organizational and Professional Communication
   COMM 317* Case Studies in Technical Writing
   COMM 340* Professional Communication
   COMM 440 Writing for the Organization
   COMM 450 Principles of Organizational Communication
   COMM 477 Professional Communication Ethics
   SPEE 400 Speech Skills for Professionals

Track B: Journalism and Media Studies
   JASS 3015* Advanced Reporting
   JASS 302 Media Law and Ethics
   JASS 310* Narrative Journalism
   JASS 330* Feature Writing
   JASS 370 Narratives of Film and Literature
   JASS 401* Interpretive Journalism
   JASS 402* Investigative Reporting
   COMM 420 Critical Media Studies
   COMM 455 Gender and Media Studies
   COMM 481* Gender and Globalization

Track C: Speech
   SPEE 310 Interpersonal Communication
   SPEE 320 Advanced Public Speaking
   SPEE 330 Argumentation and Debate
   SPEE 340 Theory of Persuasion
   SPEE 430 Small Group Communication

Track D: Electronic Media
   JASS 315* Writing & Prod Electronic Media
   JASS 345 Audio Production
   JASS 350 Television Production
   JASS 403 Issues in Cyberspace
   JASS 405 Web Design

Other approved courses
   COMM 300 Communication Research Methods
   COMM 390 Topics in Communication
   COMM 398 Independent Study in Communication
   COMM 464 Contemporary Rhetorical Theory
   HUM 485 Humanities Internship
   LING 375 Psychology of Language
   POL 328 Public Opinion and Pressure Groups
   POL 329 Politics and the Media
   PSYC 421 Introduction of Group Dynamics
   SPEE 399 Independent Study in Speech

Component III. Cognates

This component is designed to enhance the international dimension of the major and to coordinate the language and culture studies with professional preparation. Students will take three courses (9 hours, 300+ level) in fields such as anthropology, art history, business and management, economics,
foreign cultures, history, and political science. Courses should be selected in accordance with students' particular needs. See CASL Advising website for the approved list of courses.

NOTES:
1. Majors should obtain from the INST Program Director information on courses that are especially recommended for the Cognates Component.
2. Students may elect the Humanities Internship (HUM 485) for a maximum of three hours and avail themselves of on-the-job experience in a business, governmental, or cultural institution. See the INST Program Director for Internship Guidelines.
3. Students may use upper-level courses, especially culture/civilization, literature, or film courses, in another foreign language for Cognate credit. Students may not use courses in the same foreign language designated as Component I for Cognates credit.
4. Students may not use identical areas for both Components II and III, e.g., students with Professional Studies (Component II) in Business and Management may not select Business and Management courses for Cognates (Component III) credit.
5. Students' course choice in Components II and III must include a minimum total of two courses with a clearly international dimension; a greater number is highly desirable.
6. Students may transfer no more than 6 upper level hours in Components I, II, and III combined.

ADVISING
International Studies majors are urged to consult with faculty in the foreign languages, management, and the other professional areas before the beginning of each semester.

Students with a high school background of three to four years of study of French, German or Spanish would be able to begin their studies of the same foreign language at UM-Dearborn with the study of French, German or Spanish would be able to begin their studies of the same foreign language designated as Component I for Cognates credit. Students may not use courses in the same foreign language designated as Component I for Cognates credit.

Japanese (JPN)

COURSE OFFERINGS

JPN 128  Beginning Japanese I  
5.000 Credits
Japanese instruction at the beginning level. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Japan. Seven contact hours per week. (F).

JPN 129  Beginning Japanese II  
5.000 Credits
Continuation of JPN 128. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Japan. Seven contact hours per week. (F).

JPN 178  Accelerated Japanese I  
5.000 Credits
A demanding course that brings a student with little or no knowledge of Japanese through the beginning level into the intermediate level. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Japan. Seven contact hours per week. (F).

JPN 225  Accelerated Japanese II  
5.000 Credits
Continuation of JPN 128. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Japan. Seven contact hours per week. (F).

JPN 228  Intermediate Japanese I  
5.000 Credits
Japanese instruction at the intermediate level. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Japan. Seven contact hours per week. (F).

JPN 229  Intermediate Japanese II  
5.000 Credits
Continuation of JPN 228. Taught at the Japan Center for Michigan Universities, Hikone, Shiga, Japan. Seven contact hours per week. (W).

JPN 230  Contemp Iss Japanese Politics  
3.000 Credits
This course introduces students to modern Japanese politics. It combines a comprehensive survey of Japanese political systems and structures with an introduction to some of the key areas of controversy and debate in Japan today ranging from debates about the environment to Japan's place in the world.

JPN 231  Intro. to Japanese Lang. & Cul  
3.000 Credits
During the first three weeks of the program, students participate in a beginner-level Japanese language and culture course. This course integrates classroom learning with practice of new language skills and cultural knowledge during cultural activities, field trips and other activities.

JPN 232  Comparative Health Care  
3.000 Credits
This course acquaints students with Japan's unique health care system and how it compares to other models. Team-taught by professionals from Japan and the U.S., the course is augmented with a variety of site visits and guest lecturers.

JPN 233  Observ. Health Care Exp.  
2.000 Credits
Coordinated and supervised by the Shiga University of Medical Science (SUMS), students will spend a week in the SUMS teaching hospital observing and learning from doctors, nurses, graduate students, researchers and professors in their field of interest. Past observational studies have included experiences in nursing, radiology, physical therapy, intensive care, surgical units and more.

JPN 395  Japanese Society & Culture I  
4.000 Credits
Focused on modern Japan, the course will include Japanese geography and ethnography, with an emphasis on the Japanese idea of homogeneity. Japan's role in the international context will also be examined. Classroom work will be combined with field trips, in a writing-intensive approach. Taught at the Japan Center for Michigan Universities, Hikone, Shiga Prefecture, Japan.
JPN 396  Japanese Society & Culture II  
4.000 Credits  
The prehistoric and historic roots of Japan. Political economy of contemporary Japan and future directions for the country. Classroom work will be combines with field trips, in a writing-intensive approach. Taught at the Japan Center for Michigan Universities, Hikone, Shiga Prefecture, Japan.

JPN 397  Cross-Cult Business Comm/Japan  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  
This course is to immerse students in cross-cultural communications with in a Japanese context. The students explore the dimensions of culture through classroom/community activities, case studies, worksites, panel discussions, peer-led activities and simulations. Taught at the Japan Center for Michigan Universities.

Journalism and Screen Studies  
(JASS)  
The Journalism and Screen Studies (JASS) discipline is dedicated to storytelling—its forms, techniques, and technologies. We offer individual courses on the genres, including news, features and photographicjournalism; narrative journalism/creative nonfiction; documentary and feature film. In all courses, JASS stresses convergent media, interdisciplinary, and the underlying research and writing skills that connect us as journalists, documentarians and filmmakers. The program looks at storytelling as a means to both inform and entertain.

The ability to analyze and interpret work in a specific medium and to view it within a variety of interpretive contexts provides a foundation for all forms of storytelling, from news reportage to feature films. While we offer individual courses in each medium, all courses include analytical components and assignments, and all stress the interdependency of theory and practice, form and content.

JASS makes current and emerging technologies available to all its students, emphasizing these technologies, not as ends in themselves but as tools of intellectual and creative expression.

Experiential Education (internship, Co-op, or Senior Thesis)  
All JASS students are required to participate in an internship, co-op or senior thesis. There is a seminar component to both the internship and the co-op.

The senior thesis is available only to students who have prior JASS industry experience.

JOURNALISM AND SCREEN STUDIES  
REQUIREMENTS  
Required Prerequisites: ............................................. 6 hrs  
JASS 2015 Fundamentals of Journalism  
JASS 248  Introduction to Screen Studies  

Required Experiential Education  
HUM 485 (internship) OR LIBS 300 and 395 (co-op) OR  
JASS 497 (senior thesis)............................................. 3 hrs  

Required Narrative Writing Course  
JASS 310  Narrative Journalism.................................. 3 hrs  

SELECT ONE AREA OF STUDY: Option A Journalism or  
OPTION B Screen Studies  

OPTION A: JOURNALISM  
Required Core Area I: Media Tools .............................. 12 hrs  
Choose 4 courses from the following:  
JASS 303: Communication Design  
JASS 3015: Advanced Reporting  
JASS 307: Copy Editing  
JASS 330: Feature Writing for Magazines and Newspapers  
JASS 331: Online Research, Reporting and Writing  
JASS 345: Audio Production  
JASS 350: TV Production  
JASS 401: Interpretive Journalism  
JASS 402: Investigative Reporting  
JASS 405: New and Emerging Media  
JASS 423: Comm Design for Web & Mobile  

Required Core Area II: Genres, Modes, & Contexts of  
Storytelling.......................................................... 9hrs  
Choose 3 courses from the following:  
JASS 302: Media Law and Ethics  
JASS 332: Graphic Novel  
JASS 333: Sports Reporting and Writing  
JASS 334: Science and Environmental Reporting  
JASS 338: Business and Automotive Reporting  
JASS 370: Narratives of Film and Literature  
JASS 380: History of Journalism  
JASS 390: Topics in Journalism and Screen Studies  
JASS 398: Independent Study  
JASS 403: Issues in Cyberspace  
JASS 406: History and Theory of Documentary  
JASS 413: Photojournalism and Digital Photography  
JASS 436: Memoir and Travel Writing  
JASS 497: Thesis  
COMM 430: International Communication  
HUM 485: Second Internship  

OPTION B: SCREEN STUDIES  
Required Core Area I: Media Tools .............................. 12 hrs  
Choose 4 courses from the following:  
JASS 302: Media Law and Ethics  
JASS 332: Graphic Novel  
JASS 333: Sports Reporting and Writing  
JASS 334: Science and Environmental Reporting  
JASS 338: Business and Automotive Reporting  
JASS 350: TV Production  
JASS 405: New and Emerging Media  
JASS 410: Advanced Media Production  
JASS 423: Comm Design for Web & Mobile  
JASS 467: Scriptwriting Workshop  

Required Core Area II: Genres, Modes, & Contexts of  
Storytelling.......................................................... 9hrs  
Choose 3 courses from the following:  
JASS 332: Graphic Novel  
JASS 335: Multimedia and Music  
OR  
JASS 336: Film and Music  
JASS 357: National Cinemas  
JASS 370: Narratives of Film and Literature  
JASS 381: European Cinema
JASS 385: Black Cinema
JASS 387: Film and Feminisms
JASS 390: Topics in Journalism and Screen Studies
JASS 398: Independent Study
JASS 403: Issues in Cyberspace
JASS 406: History and Theory of Documentary
JASS 413: Photographic Journalism and Digital Photography
JASS 436: Memoir and Travel Writing
JASS 457: American Cinema
JASS 477: Ethnographic Film
JASS 497: Thesis
HUM 485: Second Internship

Notes:
1. A maximum of 63 hrs of JASS may count toward the 120 hrs required for graduation.
2. At least 15 of the 27 upper level hours in the COMM major must be elected at UM-D.
3. The Thesis option (JASS 497) is only available to students who have significant professional experience in their area of specialization within Journalism or Screen Studies and requires the approval of the JASS faculty advisor.
4. Students wishing to undertake an independent study (JASS 398) must first secure the approval of the JASS faculty member willing to serve as advisor.
5. A maximum of 6 credits of internship (HUM 485) or co-op (LIBS 300, 395, 396) may count toward the major (3 credits to fulfill the experiential education requirement and 3 credits as a second internship/co-op taken in a term separate from the first internship/co-op and may apply toward the Genres, Modes, and Contexts area II.

MINOR OR BGS/LIBS AREA OF FOCUS
A minor or area of focus in Journalism and Screen Studies consists of fifteen hours of approved upper-level courses. At least two of the courses (6 credits) must be in the “Media Tools” area and at least two courses (6 credits) must be in the “Genres, Modes and Contexts of Storytelling” area. The remaining course (3 credits) may be any 300+ level JASS course:

Prerequisites: JASS 2015 or 248

Media Tools – Choose two from:
JASS 303, 307, 315, 330, 331, 345, 350, 3015, 401, 402, 405, 410, 423, 467

Genres, Modes, and Contexts of Storytelling – Choose two from:
JASS 302, 332, 333, 334, 335 or 336, 338, 357, 370, 380, 381, 385, 387, 390, 398, 403, 406, 413, 436, 457, 477; COMM 430

3 credit hours of HUM 485 (internship) may count toward the 15 credits in the JASS minor.

Journalism and Screen Studies (JASS)

COURSE OFFERINGS

JASS 2015 Fundamentals of Journalism
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280

Study and practice in newspaper reporting and news gathering, interview techniques, and basic newswriting skills. Students will also discuss libel law, ethics, and the use of the Freedom of Information Act. (YR).

JASS 240 Film and Society
3.000 Credits

A survey of the major genres of film, chiefly in historical and political perspective, but also in the light of important intellectual frameworks (e.g., feminism, psychoanalytical theory). The films selected, both Western and non-Western, will be examined both for their visual codes of meaning and for their wider role in developing a powerful social language in various cultural contexts. (YR).

JASS 248 Introduction to Screen Studies
3.000 Credits

This course will introduce students to the development of world cinema by integrating the aesthetics of film with its technology, and its social and economic milieu. It will train the students in analyzing the formalist qualities of the medium, and in understanding the evolution of its various genres and styles. (YR).

JASS 3015 Advanced Reporting
3.000 Credits
Prerequisites: COMM 2015 or JASS 2015

Advanced study and practice in news reporting and writing. Students will gain experience with in-depth reporting through coverage of developing news stories. Longer articles of publishable quality are required. (OC).

JASS 302 Media Law and Ethics
3.000 Credits

The basis of reportorial journalism is its foundation in the First Amendment. This course examines the legal restrictions and freedoms governing print media and explores the ethical responsibilities of print journalists. Specific topics covered include First Amendment law, the clear and present danger standard, defamation and libel, privacy, obscenity, free press/fair trial, access, shield laws, and journalism ethics.

JASS 303 Communication Design
3.000 Credits

May not be enrolled in one of the following Classes:
Graduate
Undergraduate NCFD
Post-baccalaureate NCFD
Specialist
Undergrad Certification only
Doctorate
Post-baccalaureate Cert only

This course covers both theory and practice of design as it relates to the field of mass communications and media production. Through classroom and computer exercises, students become familiar with a variety of tools and techniques for planning and executing design projects across platforms. This includes exposure to digital imaging technology and desktop publishing software. Students may not receive credit for both JASS 303 and JASS 250. (F,W,S).

JASS 307 Copy Editing
3.000 Credits
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280

Course covers manuscript and electronic editing of news and feature stories, editing for libel and taste, fact-checking, writing headlines and captions, and use of reference books. Includes a review of grammar and work usage, punctuation, spelling, and style.
JASS 310  Narrative Journalism  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

Students learn to identify, understand and use the techniques of fiction in the service of nonfiction material. While studying the texts as literature, students are also encouraged to view them as models for writing. Assignments include the writing and revising of articles, based on research and interviews, and writing in story form, drawing on literary techniques. (YR).

JASS 315  Writing & Prod Electronic Media  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

This course focuses on the basics of electronic journalism, including broadcast concepts, terminology, writing, producing and scripting. The emphasis will be on building solid writing skills and applying them to different electronic media, including broadcast news, commercial, corporate, multimedia and web-based formats. Students will be exposed to a variety of strategies for developing ideas, researching them, creating copy and following projects through the production and evaluation process. (AY).

JASS 330  Feature Writing  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

An introduction to the writing of feature stories for newspapers and magazines. Students study methods of gathering information and of preparing a manuscript for publication. (AY).

JASS 331  Online Reporting, Research, Writing  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  

Course introduces the technical, social, legal and ethical practice of online research, focusing specifically on reporting (i.e., research and interview) skills required by journalists and others. Students use new media technology to generate ideas, to research subjects, and to develop general-audience writing projects in their areas of interest. Course covers the use of Web search engines, directories and databases; finding sources and interviewing people online; evaluating the credibility of online sources and information; using Lexis-Nexis to access archives and public records; and using spreadsheet and database programs.

JASS 332  Creating the Graphic Novel  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  
Prerequisites: ART 202 or ART 206  

This course focuses on the creation of an original graphic novel from inception to fully developed story. Students work on character, plot development, dialogue, drawing style, and layout planning, and are encouraged to introduce any cross-disciplinary techniques such as digital applications when appropriate. Lectures and readings consider contemporary media.

JASS 333  Sports Reporting and Writing  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  
Prerequisites: JASS 2105  

In this course, students not only learn how to write a sports story and report it across a variety of media, they also examine and write about relevant issues, from race and gender to sportsmanship and hero worship. In addition to assigned class readings, students read and report on one sports-related film and one book, chosen from a list of classics posted on CTools, and write a final paper in which they address an issue relevant to sports reporting. Local and national practitioners contribute their thoughts on a variety of subjects throughout the term.

JASS 334  Science and Environmental Journalism  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  
Prerequisites: JASS 2105  

This course introduces the practice and theory of science and environmental journalism. Students report and write short science and environmental articles across a variety of media. They also examine the history, ethics and politics of environmental and science journalism and isolate a relevant issue as the focus of a research project, which will later generate a longer science/environment feature story. After instructor critique, students revise all work and submit a final ePortfolio.

JASS 335  Multimedia and Music  
3.000 Credits  
Prerequisites: MTHY 100 or MTHY 101 or MTHY 102 or MHIS 100 or MHIS 120 or MHIS 130 or MHIS 150  

In this course, students will explore case studies of music created, performed, and distributed in combination with other media from the 1960s to the present. Multimedia is understood as any context in which several media are integrated, but particular focus will be paid to technological and creative innovations (such as video games, computers, and phones). The use of music will be considered in such media as film and television, multimedia performance and installation art, and international developments in multimedia production and distribution.

JASS 336  Film and Music  
3.000 Credits  
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130  

In this course, students will be introduced to the varieties of music used in film from c. 1900 to the present. Topics covered include a basic introduction to the musical features of Western European dramatic music; the role of music in the early decades of the 20th century; the growth of film and musical sound in the "classic era" of Hollywood film; the use of music in specific genres such as film noir, science-fiction, epic, and musicals; and the use of popular song in film. Prerequisite: previous completion of MHIS 100, 120, 130, or by permission of the instructor.
JASS 338  Business/Automotive Reporting  
3.000 Credits  
Prerequisites: JASS 2015  
This course covers two inter-related areas: finance and automotive journalism. Students learn how to cover the economy and business community, focusing on areas such as Wall Street, economic indicators, stocks and bonds. Since the University of Michigan-Dearborn is located in the heart of the world automotive industry, the course also emphasizes the skills necessary for a career in automotive journalism, specifically how to read and report auto-related financial, environmental, safety, labor, finance and manufacturing documents. An introductory course in Economics is recommended.

JASS 345  Audio Production  
3.000 Credits  
Prerequisites: ENGL 248 or HUM 248 or JASS 248 or FILM 248  
This hands-on course will introduce students to the basic theories of audio and audio program production, including the fundamentals of digital audio and studio and remote recording. The course is designed to instill upon students the importance of sound in the electronic media and how its use or misuse can enhance or detract from media productions. Readings, lectures and projects are designed to teach students how to discern good audio from bad and how to avoid pitfalls media producers and directors commonly make. Through the practical application of audio concepts in the radio laboratory and through critiques of radio projects and programs, students will gain the insight and experience they will need to successfully design and execute audio strategies for the electronic media.

JASS 350  Television Production  
3.000 Credits  
Prerequisites: (ENGL 248 or HUM 248 or JASS 248 or FILM 248)  
Television production skills taught in the context of the history, aesthetics, and technology of television. Purpose of the course is to provide students with a working knowledge and critical awareness of the medium through classroom instruction and studio training. Course counts toward minor in Communications. (YR).

JASS 357  National Cinemas  
3.000 Credits  
Prerequisites: HUM 240 or JASS 240 or FILM 240 or ENGL 248 or HUM 248 or JASS 248 or FILM 248  
This course will introduce students to the national cinemas of a select country In contrasting the evolution of cinema in the East, with the dominant genres and conventions of Hollywood, the course will enable students to critically examine non-Hollywood narratives; the interaction of various nationalist movements within the institution of cinema; and the ways in which world cinema has been inflected by various indigenous performance practices and other visual representations. (OC).

JASS 370  Narratives of Film and Lit  
3.000 Credits  
Prerequisites: ENGL 248 or HUM 248 or JASS 248 or FILM 248  
Explores the narrative conventions of literary and filmic fictions in a cultural, historical and psycho-analytical context. The course goes beyond a discussion of the relative merits of novels and their respective film adaptations and examines the more complex interchanges between the two narrative forms; the ideological function of narrative in contemporary society; and the effect of the medium of a fictional text on the reader/viewer. (OC).

JASS 380  History of American Journalism  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  
This course surveys the history of American journalism from the Colonial period to the present. Topics explored include the development of print journalism, the rise of the reading public, the growth of advertising, photojournalism, and the tabloid press, and the evolution of electronic journalism from radio and television through the computer age. (YR).

JASS 381  Postwar European Cinema  
3.000 Credits  
Prerequisites: HUM 240 or JASS 240 or ENGL 248 or FILM 240 or FILM 248 or CPAS 40 or COMP 280  
This course will concentrate on a series of films from various European countries with a focus on the socio-political issues, historical events and cultural preoccupations that have defined and also challenged European societies from WWII to the present. Zeroing in on the construction of European identities, the course will analyze and compare modes of narrating national, class, racial, sexual and social differences in different European nations. Themes such as memories of war and the Holocaust, new conflicts, class, immigration, women's rights, gender, and East-West relations will be addressed. The course will thus privilege a cinema that offers a "ret," a story. Particular attention will be given to discourses on otherness and on the ways in which film culture has reflected, reinforced, reshaped and, in some instances, contested Europe's past and current dominant ideologies and identities. Readings by cultural historians and analysts will provide the context for an understanding of the films. The course will conclude with a discussion of the possible existence of a specific postwar European Cinema.

JASS 385  Black Cinema  
3.000 Credits  
Prerequisites: HUM 240 or JASS 240 or ENGL 248 or HUM 248 or JASS 248 or FILM 248  
This course will examine selected films from African American and African film traditions in order to analyze how their cultural production is responsive to the conditions of social oppression, economic underdevelopment, and neo-colonialism. How film traditions define "Black aesthetics" will also be discussed. (AY).

JASS 387  Film and Feminisms  
3.000 Credits  
Prerequisites: HUM 240 or JASS 240 or ENGL 248 or HUM 248 or JASS 248 or FILM 240 or FILM 248 or WGST 275 or WGST 303 or ANTH 275 or ANTH 303 or WGST 275 or PSYC 275 or PSYC 303 or SOC 275 or SOC 303 or WST 275 or HUM 275 or HUM 303  
This course will establish the role of mainstream cinema in the construction of female gender roles in contemporary Western society. The course will engage with debates in feminist film theory and the role of avant-garde and non-Western cinema in challenging the gender ideology of mainstream cinema. (AY).
JASS 390  Topics in JASS  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Examination of problems, issues, technology and critical issues in advanced subject areas in journalism and screen studies. Title as listed in schedule of classes changes according to content. Course may be repeated for credit when specific topics differ.

JASS 398  Independent Study in JASS  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Arts, Sciences&Letters  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Readings, supervised practice or analytical assignments in Journalism and Screen Studies, determined in accordance with the needs and interests of those enrolled. May count toward JASS minor.

JASS 401  Interpretive Journalism  
3.000 Credits  
A study in the reading and writing of newspaper columns, editorials and reviews. Course prepares students to write newspaper columns as well as reviews and interpretive pieces on the arts. It examines current writing on literature, drama, cinema, graphic arts and music, and includes a study of the newspaper/magazine column.

JASS 402  Investigative Reporting  
3.000 Credits  
Prerequisites: COMM 2015 or JASS 2015  
A course in investigating a subject and writing a publishable story. Course covers the rudiments of investigative reporting: preliminary research, story selection, investigative strategies and resources, interviewing, and evaluation of material. Examines the history and current status of investigative reporting, including its ethics and politics. Students write and edit several articles and focus on two longer investigative pieces. (YR).

JASS 403  Issues in Cyberspace  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
This course will explore some of the current social, political, legal, and technological issues associated with the use of new media technology to move ideas and information in a democratic society. Examples of areas to be explored include the Internet and World Wide Web, privacy, the future of the mass audience, and the meaning of the First Amendment in the 21st Century. Students cannot receive credit for both COMM 403 and COMM 503. (OC)

JASS 405  New and Emerging Media  
3.000 Credits  
Prerequisites: JASS 250 or COMM 250 or JASS 303  
This workshop-oriented course focuses on expanding conceptual and technical skills in emerging forms of media storytelling in an online context, including interactive narrative, collage, database cinema, eBooks, and apps for mobile devices. The course integrates a range of software and interfaces with an emphasis on the conceptual and creative applications of these tools. Students may not receive credit for both JASS 405 and COMM 405. Students who have taken JASS 405 under the course title Web Design are not allowed to take the course for credit again under the title New and Emerging Media.

JASS 406  History&Theory of Documentary  
3.000 Credits  
Prerequisites: JASS 350 or COMM 350 or JASS 405 or JASS 406 or JASS 345  
This course surveys the history of European documentary and explores its ethical, legal and economic issues. Students study documentary’s central moments, forms and artists; the changing theoretical approaches to documentary making; and the range of documentary purposes (informational, educational, propagandistic, entertainment). The course also provides historical and theoretical background for those students who wish to pursue their interest in documentary in the script-writing and production courses also offered in the Journalism and Screen Studies Discipline.

JASS 410  Advanced Media Production  
3.000 Credits  
Prerequisites: JASS 350 or COMM 350 or JASS 405 or JASS 406 or JASS 345  
The course covers advanced concepts in media production and provides a pre-professional opportunity to direct. Elements include scripting and organization, producing, and post-production editing techniques. Emphasis is placed on individual and small group work in both field and studio settings, leading to the creation of a professional broadcast-quality portfolio program or segment. May be repeated once for credit.

JASS 413  Photojournalism  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  
A hands-on digital imaging course in which students learn the basics of photojournalism and photography, including subject selection, composition, cropping, retouching and caption writing.

JASS 423  Comm Design for Web & Mobile  
3.000 Credits  
Prerequisites: JASS 250 or JASS 303  
An introduction to the technology, strategies, and outcomes that drive design development for mobile-friendly web sites and graphics. Instruction in the use of the concepts, design principles and technology to create a working mobile website.

JASS 436  Memoir and Travel Writing  
3.000 Credits  
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40 or COMP 280  
A course in narrative non-fiction that focuses on memoir and travel writing. Reading involves several books as well as classic essay-length examples. Assignments include both short analytical papers and the writing and revising of three original articles, based on research, interviews, memory, and observation, and drawing on literary techniques. (YR).
This course will analyze how Hollywood as the nation's dream factory has manufactured fantasies and cultural myths that have constructed the image of American citizenship, both for Americans and non-Americans. It will establish the ideological function of Hollywood texts as providing unifying symbols for a fragmented society. (YR).

JASS 477 Ethnographic Film
3.000 Credits
Prerequisites: ENGL 248 or HUM 248 or JASS 248 or ANTH 101 or FILM 248

This course will analyze ethnographic films as a medium for the construction of meaning in and across cultures. It will teach students to understand how the putatively "real" content of documentary film creates a mixture of fantasy, news and "science." Covering texts as varied as National Geographic photographic layouts, traditional ethnographic films made by anthropologists, and auto-ethnographies of cultural groups such as Native Americans and the Trobriand Islanders of Papua, New Guinea, the course will aim to deconstruct such oppositions as indigene vs. alien, us vs. them, and self-vs. other. Students cannot receive credit for both FILM 477 and FILM 577. (AY).

JASS 497 JASS Thesis
3.000 Credits
Must be enrolled in one of the following classes:
   Senior
   Junior
Prerequisites: JASS 2015 and JASS 248 and JASS 310

A thesis project that is the culmination of the Journalism and Screen Studies major. Students choose the project area and write a thesis (40-50 pages) under the direction of a JASS faculty member. The thesis option is available only to students with substantial practical experience in the field of journalism or screen studies, and requires the approval of the JASS faculty. This course is available only to Junior/Senior students majoring in the JASS program.

Latin (LAT)
(not a field of concentration)
COURSE OFFERINGS

LAT 101 Beginning Latin I
4.000 Credits
An introduction to reading and translating Latin. The strong influence of Latin on the formation and meaning of English (as well as French, Spanish, and Italian) will be used to illuminate the importance of Latin for understanding western languages and thought. Literature appropriate for the level will be read. (F).

LAT 102 Beginning Latin II
4.000 Credits
Prerequisites: LAT 101
A sequel to Beginning Latin I. Literature appropriate for the level will be read. (W).

Law and Society

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

Law and Society is a program of study that is intended for the understanding of law in its historical and social contexts. Through study of the evolution of law from ancient societies to our contemporary day, students are encouraged to see law as a dynamic institution shaped by historical forces and social values. Substantively, emphasis is given to the study of such contemporary legal issues as human freedoms and civil rights, social responsibility and the treatment of criminals, constitutional interpretation and the enumeration of citizen rights.

The Law and Society field takes up studies of the legal environment of various institutional sectors in our society. The health care, the family, and mental health systems all have detailed legal environments setting standards for professional conduct, responsibilities of various participants and enabling legislation of various kinds. Other fields, such as communications media, business enterprises, and the military also have fully elaborated legal environments.

In addition to its role as a source of research into the field of Law and Society, the Program offers an undergraduate CASL-wide minor. The Law and Society Minor is structured as follows:

Two prerequisites
   one course from
   PHIL 233 Critical Thinking
   PHIL 234 Symbolic Logic
   PHIL 350 Symbolic Logic
AND
   PHIL 240 Ethics

Core course
   SOC 453 Sociology of Law

Four Track courses: two from group A and two from group B

Group A: Legal environments of industries and professions
   COMM 302, 403, 415; ENST 350; PHIL 442; POL 364; SOC 454, 456, 457; PDED 425; ACC 360; HRM 408; LE 452, 453.

Group B: Structure and process of legal institutions
   ECON 325, 385, 433, 4021, 4085; PHIL 335, 445; POL 304, 312, 315, 316, 362, 363, 413, 414, 415, 4165; SOC 471.

For more information, students and faculty should contact the CASL College-Wide Programs office, 2036 CB, (313) 593-4925 or visit the Program website at casl.umd.umich.edu/591101/.

Leadership & Communication in Organizations

MINOR OR BGS/LIBS AREA OF FOCUS ONLY
15 credits of upper level course work. Include courses from three areas as indicated:
A. Communication Skills – choose two courses from: COMM 317, 340, 430, 440, 450, 460; SPEE 310, 320, 330, 340, 400
LIBS 101  Foundatns of Academic Success
1.000 Credits
This course is intended to introduce students to the nature and purpose of higher education, and of academic inquiry. Academic planning, information literacy, bibliographic search techniques and the evaluation of electronic information are discussed.

LIBS 111  To Infinity and Beyond
3.000 Credits
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
In this seminar we explore the emergence and evolution of concepts surrounding zero, infinity, and dimension. These mathematical topics are introduced in a historical context as the by-products of human enterprise. Students study foundations of number systems, investigate objects with fractional dimensions, gain an understanding of logic as it applied to proof methodology, and develop visualization skills, creating a tangible experience with abstract mathematical objects and concepts. The supporting material is drawn from selected readings, as well as films and videos. (F).

LIBS 112  Car Culture
3.000 Credits
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
A study of the impact of the automobile on contemporary American culture and society using the concepts and approaches of the multidisciplinary field of Science and Technology Studies. The course examines the social contexts and consequences of how cars are designed, assembled, marketed, driven, and regulated; their role in shaping individual, group, and national identity; and their place in the American imagination. (F).

LIBS 113  The World in a Grain of Sand
3.000 Credits
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105 COMP 106
From a single artifact (an object or a text), students will learn to build an understanding of an entire culture in a given historical moment. First by analyzing the artifact and then by building a larger context in which to interpret the significance of that artifact, students will also build their own academic community. By the end of the course, each student will have mastered the use of all library research resources and have developed a specific expertise in an area of research related to the artifact. By the end of the course, the class will have organized its own academic conference on the artifact in which they will share their research and insights. The professor will be a specialist in the area from which the artifact is selected and will guide you in your mastery of research skills and acculturation to academic life. (F).

LIBS 114  The Roots of American Activism
3.000 Credits
Co-requisites: COMP 105
This course examines the history, rhetoric, and social context of American citizen activism in the nineteenth and early twentieth centuries. Topics will include African American abolitionist and civil rights activism, women's suffrage, the home economics movement, the labor movement, educational reform, and student political involvement on college campuses. We will also pay special attention to how these movements played out locally. Our goal throughout will be to understand how ordinary citizens used language to effect social change - and how we today might do the same. (F)
LIBS 115  Shakespeare: Stage/Page/Screen  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This course will expand the study of Shakespeare from its traditional literary medium to its heritage of performance on a variety of stages and to its adaptation to the mediums of film and television. Elucidating Marshall McLuhan's axiom - "the medium is the message" - the course will enable students to understand how a text is inflected by its medium. Students in this seminar are required to participate in a class trip to the Stratford Shakespeare Festival in Ontario, Canada. Costs for the tickets and lodging will be partially subsidized. Likely student costs: food and transportation. For further information contact the instructor. (F)

LIBS 116  Fast Food Nation  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This course explores the role of fast food in our society. Fast food is something we take for granted, yet it has helped shape our culture as well as our economy and is a key symbol of the American lifestyle to the rest of the world. In this course we will examine the history of the fast food industry, the nature of work in the fast food sector, the global reach of corporations like McDonald's and Starbucks, the environmental impact of food production, and the rise of the "slow food" movement. The course will introduce students to perspectives from the social and behavioral sciences including economics, sociology, anthropology, environmental studies, science and technology studies, politics, and history. (F)

LIBS 117  The Conscious Brain  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This course will use visual perception and its organization in the brain and related phenomena such as attention and memory as tools to explore the issue of where in the brain consciousness is located, and what the necessary and sufficient criteria for consciousness are. A central premise is that consciousness, formerly the sole province of philosophers, can now be studied empirically using scientific methodologies. (F)

LIBS 118  Gender & Relationships  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This course will focus on gender and close relationships. We will examine how pop culture (including popular movies and self-help psychology books) tend to construct gender as a naturally occurring dichotomy, emphasizing the "vast" differences between women and men. For example, John Gray's relationship self-help book titled "Men are from Mars, Women are from Venus" has sold millions of copies and has helped to perpetuate the idea that women and men are so different as to be considered different species. The course will introduce students to perspectives from various disciplines including psychology, sociology, communications and gender studies. Using theory and scientific research from these various disciplines, students will learn to critically examine the ways that gender and close relationships are portrayed in our society.

LIBS 119  Culture Wars  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This course explores the aspects of the conflict between religion and science in America using the Scopes Trial of 1925 as the primary case study. The trial centered on the teaching of certain ideas generally thought to be part of Charles Darwin's theory of evolution via natural selection. These claims will be evaluated by examining the science of Darwin's "On the Origin of Species". The political debate will be examined first in the context of Thomas Jefferson's writings on democratic policy and science, and then from the perspective of early populist and fundamentalist reaction to Darwinism. The subsequent development of Darwinism patterns in American social, ethical, and literary thought will also be explored, as will the rise of the modern creationist movement. The course will conclude with an analysis of the political, educational, and scientific response to that movement.

LIBS 120  World War II and the Cinema  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This course seeks to explore how the Second World War has been depicted to American audiences during the previous half century. It focuses on ten major films. The first half of the course examines a series of themes uppermost in the minds of directors during the conflict; the second half of the course will explore how the legacy of the war has been remembered during the previous half century.

LIBS 121  East Meets West: Global Conn  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
This seminar will introduce students to the following: (1) key primary sources for China and East Asia that focus on global interconnections and exchanges; (2) key theoretical issues tied to thinking about global interconnections; and (3) suggested further readings in secondary sources. Upon completion, students will be familiar with some of the basic ways to think and to find out about exchanges and interactions in world history, and to incorporate Chinese and East Asian materials (in translation) into their research.

LIBS 122  Writing about College Life  
3.000 Credits  
Must be enrolled in one of the following classes:  
Freshman  
Co-requisites: COMP 105  
In this class we will look at how our own experiences conform to or challenge popular myths and narratives about the historical and contemporary college experience in America. We will study how college life is constructed in novels, newspapers, diaries, letters, personal interviews, essays, textbooks and films. While reading and writing about the college experience, we will address the intersection between fact and fiction and explore how print and visual representations might shape our perceptions of our world. Overall, students' own stories as college students will be crucial to the class's investigation, assessment and production of college life narratives.
LIBS 123  Cognitive Science Fiction
3.000 Credits
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
What does it mean to be human? Can machines fall in love? Can our consciousness be transmitted to another human being or substance? Is language fundamental to communication of thought? If so how would communication with other life forms proceed? These questions have traditionally been the domain of science fiction. However, given advances in technology, scientists are asking these questions with increasing frequency. This course explores the interplay between science and fiction. Each week we will examine a particular question through both science and fiction (book, film, etc.) and see to what extent the science coincides with, or deviates from, the fiction. There will be a heavy emphasis on topics in cognitive science - an interdisciplinary science of mind and intelligence encompassing fields such as cognitive psychology, philosophy, linguistics, neuroscience and artificial intelligence.

LIBS 124  Wireless World
3.000 Credits
Co-requisites: COMP 105
An examination of the impact of current Internet-based services on such fields as journalism, publishing and research. By critically examining such phenomena as blogs, social networking systems (MySpace and Facebook), and Wikipedia, students will develop critical literacy and become more effective readers, writers and researchers.

LIBS 125  Apathy 2 Action: Amer Citznshp
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
An examination of American citizenship as understood and practices in a variety of arenas of public life. We will examine both historical and contemporary perspectives on citizenship, including the ways in which public discourse helps situate Americans' understanding of the idea of citizenship, and by extension, the practice of democracy. In addition to exploring citizenship as it operates in the political arena and civil society, we will emphasize the role of higher education in nurturing active citizenship. This seminar includes an academic service learning requirement. Academic service learning is an educational method that integrates volunteer community service with course material to enhance the learning objectives of the course. Students will be expected to participate in a carefully-chosen and instructor-approved civic activity (e.g., volunteerism, democratic participation, public advocacy) that will highlight different models of citizenship in practice.

LIBS 126  Anthropologists on Campus
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
Anthropology professors have studied the lives of university students (My Freshman Year; Coming of Age in New Jersey). This course turns the tables, inviting new students to conduct field work on the "hidden lives" of professors, university staff and other students. Through guided practice in ethnographic skills-interviewing and participant-observation-students will come to understand what culture means to anthropologists while exploring the multiple cultures of UM-Dearborn and gaining insights on meanings and functions of higher education.

LIBS 127  Oceans of Data
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
This course will pursue two distinct themes. The first is the triumphs of modern statistical methodology in science during the last hundred years. Definitive studies such as the Salk Vaccine Field Trials and those involving the smoking and lung cancer controversy will be examined in depth. The second theme is the awareness and use of public access databases, which are also used by researchers and policymakers. These include the National Health and Nutrition Examination Survey (NHANES), the Surveillance Epidemiology and End Results (SEER) database of cancer registries, the Statistical Abstract of the United States, and SearchSystems.net Public Records Directory. The course will involve a number of readings and the interpretations of data that will form the basis of classroom discussion and written reports.

LIBS 128  Exploring Race and Identity
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
This seminar will examine a variety of models of mental health in African Americans and racial, ethnic and self-identity development. The impact of Black society, culture, family, racism and poverty on personality growth of African Americans will be explored. The history of Black psychology and the pioneer theorists who have made significant contributions to foundation and continuing study of the thoughts, feelings, behaviors and mental health of African Americans will be discussed.

LIBS 129  Trauma, Text, & the City
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105
An exploration of how artists and writers represent urban trauma (terror, violence, destruction, absence) to describe indescribable suffering. In the wake of urban chaos, how do writers make urban community possible? To answer this question, we will examine traumatic events in New York City (9/11) as well as Detroit to understand how emails, photographs, novels, documentaries, and films try to narrate chaos and stabilize urban history. In addition to films that experiment with narrative (such as Memento [2000] and documentaries about 9/11 and Detroit), texts may include writings by psychologists (Freud), urban historians (Sugrue), cultural theorists (Baudrillard), and novelists (Joseph Conrad).
LIBS 130  Liberal Arts & the Professions
3.000 Credits
Co-requisites: EXPS 102

A liberal arts perspective on careers and professions. Topics include the historical relationship between a liberal arts education and professional training, the development of the concepts of “career” and “profession,” sociological and psychological understandings of professions and workplaces, and accounts of work in several different professions (such as journalism, teaching, and medicine). Assignments focus on enhancing the connections between academics and career preparation. Students enrolled in Libs 130 must also enroll in Exploratory Studies 102, a one-credit career-planning course that assists students in assessing their interests, skills, and values and in identifying and researching careers.

LIBS 131  Understanding Global Cultures
3.000 Credits
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105

Globalization is the predominant interpretative concept through which we analyze the state of the planet in general, and the intermingling of cultures in particular. This course proposes a comprehensive examination of cultures around the world to first-year university students. A transdisciplinary approach (history, political science, economics, geography, and anthropology) will introduce students to a wide breadth of content and depth of contextualization, and enhance their understanding of the complexities of the (post)modern world. In addition to readings on the main groups of world cultures, we will analyze several films that address the issues of cultural identity and globality. The question of stereotyping cultures will be discussed through examples of parodic representations of cultures. The course will also address the tensions between local ways of life (historical, linguistic, ethnic, and religious) and today's pressures for transnational and multiple identities, intensified by the communication of ideas and the movement of people around the world. Thus, we will also look at how the cultures of immigrant communities in southeast Michigan have contributed to the local cultural configuration.

LIBS 132  Engaging Communities
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105

This course studies concepts of community and service within American culture. It traces the development of civic life in the U. S. by examining the promises and challenges of community and citizenship, especially questions of inclusion and exclusion in American civic life. Students are expected to engage in some form of active citizenship with this question in mind: What individual and collective actions are most effective in making our communities into places in which each person can thrive?

LIBS 133  Jesus and the Gospels
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105

Who is Jesus of Nazareth? For centuries people seeking and answer have turned to the four gospels of the New Testament. But how reliable are these texts? Were they written as biographies, histories, or to fulfill other purposes? This course will address these and other questions associated with the quest for the historical Jesus. Students will be introduced to a variety of approaches involved in the literary-historical study of the gospels and New Testament backgrounds, and learn about the methods scholars employ to move from these texts and contexts to an historical portrait of Jesus. Attention will also turn to wide range of gospels not found in the New Testament to see what light they can shed on the Jesus identity.

LIBS 134  Nano-fiction
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Freshman
Co-requisites: COMP 105

Students in this seminar will explore a collection of extremely short stories-weird and wonderful stories that manage to ignite the imagination and evoke complex realities in just a few pages. Discussion of the stories, guided by provocative questions and thought experiments, will help students develop ways to navigate texts, subtexts, and contexts at a college level; to write more critically and analytically; and to read with more confidence and passion. The seminar will incorporate a series of short, focused writing assignments and some creative research projects. The goal is to discover rich worlds in tiny packages and return safely, if somewhat altered, to the real world.

LIBS 135  Urban Monsters & Suburb Angels
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Freshman
Co-requisites: COMP 105

If cities are the centers of human civilization, then why have we inherited such horrific stereotypes of urban environments? This course analyzes how writers (screenwriters, dramatists, urban theorists, architects novelists, and poets) tried to reimagine cities (both in America and Britain) as both a unified community of English-speaking individuals and a globalizing model of civilized social organization between 1660 and the present. In doing so, the course argues that our understanding the monstrous connotations of cities depends upon our imagining the simultaneous creation of morally angelic middle-class suburbs in both gothic and horror writing and visual art. Reading may include Dracula, Journal of a Plague Year, The Strange Case of Dr. Jekyll and Mr. Hyde, Linden Hills, and The Jungle.

LIBS 191  Returning Adult Learners
1.000 Credits

LIBS 191 is designed to provide returning adult students with the support, skills, and knowledge needed for academic success at the University of Michigan Dearborn. Students will discover productive learning strategies, build a supportive network of peers, and explore campus resources by examining, through selected readings and assignments, the broader social, cultural, and individual context of being a non-traditional student on a university campus.
LIBS 200  Computer Literacy
1.000 TO 3.000 Credits

An introductory course in computing for students who do not intend to become computer programmers or designers. The course explores the nature and origins of computing, and examines its uses and limitations in such applications as teaching/learning, buying/selling and information storage/retrieval. The social implications of the computer revolution will be examined and limited programming will be provided with a small, home computer.

LIBS 275  GIEU: Global Intercultural Exp
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Specialist
Doctorate

Global Intercultural Experience for Undergraduates. LIBS 275 is an interdisciplinary experiential introduction to intercultural learning that prepares diverse undergraduate students from various colleges for field experience interactions, and then helps students bring these experiences back to campus in socially and academically productive ways. It is a series of concentrated seminars of orientation, debriefing, and symposium.

LIBS 276  GIEU: Leadership
2.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Specialist
Doctorate

The Global Intercultural Experience for Undergraduates (GIEU) Leadership Seminar provides leadership training and experience for exceptional students nominated by faculty from those having completed LIBS 275. In addition to participating in a group seminar, each student will be matched with a faculty mentor in preparing for and leading an upcoming GIEU field experience. These peer leaders will have two primary responsibilities: to help in team formation for the new field site; and to assist faculty members on site with logistics, peer communication, and organization. In addition to their practical experience, each participant will complete reflection exercises and essays.

LIBS 290  Topics in Liberal Studies
1.000 TO 3.000 Credits

A lower-level topics course. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

LIBS 300  Co-Op Education Seminar
1.000 Credits

Required co-op seminar is a corequisite or immediate post-requisite of the initial co-op work assignment (LIBS 395). Course seeks to correlate the off-campus work experience with academic learning and career orientation issues through discussion and evaluation of work experiences as they are likely to be encountered by the liberal arts graduate through analysis of job-seeking information and skills. Evaluation of student performance is based upon discussion and the quality of required assignments.

LIBS 320  Library Research Skills
1.000 Credits

Development of library research skills utilizing periodical and newspaper indexes, reference materials, government documents, biographical sources.

LIBS 330  Innovators-Project Development
3.000 Credits
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior
Must have one of the following Student Attributes:
Honors Transfer Innovators

This course is an introduction to the theory and practice of the Honors Transfer Innovators (HTI) Experience. HTI is a project based, collaborative learning community with a focus on self-transformation, creativity, diversity, leadership, and reflection. We explore these themes through readings, small group projects, and mentorship from senior students in the 400 level course, as well as the use of educational technology, and community engagement. This course is only open to students admitted into the HTI learning community.

LIBS 364  The European Union
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: COMP 105

This course examines the history and politics of European integration, notably institutional development, decision-making procedures and dynamics, and policy formulation in the European Union. The course will concentrate on the intergovernmental conferences and treaty reform, the relationship between European politics at the subnational, national and supranational levels; the role of national, institutional, and non-state actors; problems of accountability and legitimacy; the economic and monetary union; and enlargement. The course will also address questions of globalization and technology, and the American perception of the EU. (OC).

LIBS 395  Co-op Education Work Assignment
1.000 TO 3.000 Credits

Student is eligible to compete for job openings listed with the co-op office by employers. After application and interview, employers hire the student best suited to employer's job needs. Study/career-related paid positions are either alternating full-time or parallel part-time. Under a cooperative work agreement the student submits academic learning objectives and evaluations to co-op faculty advisor, who, upon review of employer evaluation, determines credit for co-op learning experience. Students must fulfill the seminar and study term requirements of the program.

LIBS 396  Adv Co-op Work Assignment
1.000 TO 3.000 Credits
Prerequisites: LIBS 395

Students who have completed two terms of LIBS 395 may move on to LIBS 396, which offers advanced training in career-related topics, especially leadership. In addition to fulfilling the work-site terms of the placement, students are required to submit leadership goals as part of their Learning objectives and leadership assessment as part of their end of term evaluation. Oral report on how leaderships objectives fared in the workplace will be presented to members of the seminar, LIBS 300. LIBS 395 is a prerequisite for LIBS 396.
LIBS 397  Adv Co-op Work Assignment II
1.000 TO 3.000 Credits
Prerequisites: LIBS 395 and LIBS 396

Students who have completed two terms of LIBS 395 and two terms of LIBS 396 may move on to LIBS 397, in which students assess their placement in the light of research on the topic of good work. In addition to fulfilling the work-site terms of the placement, students are required to conduct informational interviews of professionals in their field, including people on the work site, with special focus on that aspect of professionalism where excellence and ethics intersect. The results of interviews will be reported in the end-of-term placement evaluation. LIBS 395 and LIBS 396 are prerequisites or LIBS 397.

LIBS 430  Innovators Capstone
3.000 Credits
Must be enrolled in one of the following classes:
Sophomore
Senior
Junior
Must have one of the following Student Attributes:
Honors Transfer Innovators
Prerequisites: LIBS 330

LIBS 430 is a three-credit hour practicum based course that serves as the capstone for the Honors Transfer Innovators (HTI) Experience. Students will engage in theoretical, collaborative, and project based learning experiences focused on peer mentoring, project completion, and creative leadership. Based on these experiences, students will identify best practices that are applicable to mentoring HTI 300 level students and develop a set of principles to guide their mentoring relationship. Students in this course will mentor HTI 300 students who will be crafting their project proposals. In addition students in this course will complete an M-Portfolio documenting their HTI experience.

LIBS 442  Medical Ethics
3.000 Credits
Prerequisites: PHIL 240

An examination of moral issues in medicine. Among the problems to be considered are truth-telling and paternalism in the doctor-patient relationship, psychosurgery and behavior control, death and euthanasia, the allocation of scarce resources, and genetic counseling and control. Specific attention will be given to ethical theories and to philosophical concepts such as rights, autonomy, and justice.

LIBS 464  Literature and Science Studies
3.000 Credits
Must be enrolled in one of the following classes:
Senior

An introduction to the humanistic study of science using works of literature and the techniques of literary, historical, sociological, philosophical, cultural, feminist, and rhetorical analysis. Students cannot receive credit for both LIBS 464 and LIBS 564. Student seeking graduate credit should elect LIBS 564.

LIBS 466  Investigating Academic Literacy
3.000 Credits
Must be enrolled in one of the following classes:
Senior

Intensive investigation of, and practice with, writing and research skills required for graduate-level work. Through regular assignments, guided reading of a variety of texts, and intensive work with instructor/s and one another, students will explore what it means to produce academic discourse, learn its conventions, and develop skills in written analysis. Students cannot receive credit for both LIBS 466 and LIBS 566. Students seeking graduate credit should elect LIBS 566.

LIBS 467  Self in Philosophy/Literature
3.000 Credits
Must be enrolled in one of the following classes:
Senior

This course will utilize both philosophical and literary texts to examine the nature of self. We will explore the self's capacity for self-knowledge and self-deception, its relation to others, its connection to gender, its existence as body, and finally its desire to disown and flee itself. The philosophical texts will provide theoretical structures within which to both experience and discuss the literary texts. Students cannot receive credit for both LIBS 467 and LIBS 567. Students seeking graduate credit should elect LIBS 567.

LIBS 471  Science & Phil of Emotions
3.000 Credits
Must be enrolled in one of the following classes:
Senior

This course will examine how philosophers, scientists, and psychologists in the past analyzed the emotions in order to set the stage for an examination of more recent work on the emotions currently being produced in philosophy, psychology, and the neurosciences. We will use these analyses to explore the following topics: the mental and physical components of emotions, the relation between reason and emotion, and the understanding of the emotions of others. Students cannot receive credit for both LIBS 471 and LIBS 571. Students seeking graduate credit should elect LIBS 571.

LIBS 478  Gender, Culture, and Identity
3.000 Credits
Must be enrolled in one of the following classes:
Senior

This is a course about how scholars analyze women, gender, and feminist theories. It introduces students to key questions about gender and the principal methods for studying them. It will serve as a forum for building and testing theories on the totality of women's experience. Student cannot receive credit for both LIBS 478 and LIBS 580. Students seeking graduate credit should elect LIBS 580.

LIBS 484  Env St: Concepts and Philosophy
3.000 Credits
Must be enrolled in one of the following classes:
Senior

An extensive and intensive analysis of the roots of environmental studies. Environmental studies becomes meta-disciplinary as it makes connections between the traditional disciplines in the natural sciences, social sciences, humanities, and technological sciences when dealing with current environmental issues. The students will examine and discuss the philosophical, scientific, social, and religious basis of the environmental movements through classical and contemporary readings. Possible topics will include: views of nature, sustainability, carrying capacity, management of commons, the
environment of cities, and developing a sense of place. Students cannot receive credit for both LIBS 484 and LIBS 584. Students seeking graduate credit should elect LIBS 584.

LIBS 485  Watershed Analysis
3.000 Credits
Must be enrolled in one of the following classes:
Senior
An interdisciplinary study of watersheds, the most commonly used bioregional unit. The course will integrate the analysis of many factors which contribute to the character of watersheds, including bedrock and surficial geology, surface and groundwater hydrology, social history, land use history, water quality analysis, biological diversity, laws and regulations, management models, drinking water and wastewater, best management practices, and educational programs. The Rouge River Watershed will serve as the primary case study. Students cannot receive credit for both LIBS 485 and LIBS 585. Student seeking graduate credit should elect LIBS 585.

LIBS 487  Women and Public Spaces
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Despite old and persistent myths of a woman's place being in the home, women in America have consistently maintained a presence in public spaces. Their participation, however, was not unfettered. Laws, social mores, familial and religious restraints, etiquette, the threat of violence, lack of funds, and other factors influenced and restricted women's behavior when in public and structured society's reactions to their presence. This course will consider the development of these codes of behavior (formal and informal), how women of different ethnicities, races, sexual orientations, and classes experienced their effects, and the ways in which women sought to temper and undermine the system, particularly in the twentieth century. The course will provide an interdisciplinary approach to historic, social, physical, economic, and cultural geographies through which women have traveled. Students cannot receive credit for both LIBS 487 and LIBS 587. Student seeking graduate credit should elect LIBS 587.

Linguistics
(minor only)

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

Students may earn a minor in LING and use Linguistics as an area of focus for the General Studies or Liberal Studies major completing 12 hours of upper-level credit in Linguistics.

ESL ENDORSEMENT CERTIFICATE:

Students in the English as a Second Language (ESL) Endorsement Program are required to take 15 credit hours of linguistics courses, including three required and two electives. LING 480/580 Concepts in Linguistics is the program prerequisite, and LING 476/576 Sociolinguistics and LING/ENGL474/574 Second Language Acquisition: English are required. LING/ENGL 461/561 Modern English Grammar, LING/ENGL 482/582 History of the English Language, LING/ENGL 484/584 World Englishes, and LING/ANTH 425/525 Language and Society are offered as electives within required linguistics coursework.

LANGUAGE ARTS EDUCATION OR ENGLISH WITH SECONDARY EDUCATION MAJORS:

Students majoring in Language Arts Education and English with Secondary Education are required to take either LING/ENGL461 Modern English Grammar or LING/ENGL 482 History of the English Language, as well as an additional linguistics elective. LING 280 is the prerequisite for both of these courses and covers material examined in the Michigan State Teacher Certification Examination.

COURSES

(Crosslisted courses show code of cross-listing discipline in parentheses to right of course title)

LING 280  Introduction to Linguistics (prerequisite for all upper levels)
LING 281  Language, Thought, and Culture
LING 375  Psychology of Language (PSYC)
LING 383  American English (ENGL)
LING 385  Gender Differences in Language
LING 388  Language Pathologies
LING 390  Topics in Linguistics
LING 399  Independent Studies in Linguistics
LING 425  Language and Society (ANTH)
LING 461/561  Modern English Grammar (required for Secondary Education Certification in English)
LING 464  Contemporary Rhetorical Theory (COMP)
LING 465  Discourse Analysis
LING 474/574  Second Language Acquisition: English (ENGL, required for ESL Endorsement)
LING 475/575  Arab American English
LING 476/576  Sociolinguistics (required for ESL Endorsement)
LING 477/577  African American English (AAAS/ENGL, fulfills CASL Diversity Requirement)
LING 480/580  Concepts in Linguistics (required for ESL Endorsement)
LING 482/582  History of the English Language (ENGL)
LING 484/584  World Englishes (ENGL)
LING 499  Advanced Independent Studies in Linguistics
LING 599  Graduate Independent Studies in Linguistics

Linguistics (LING)

COURSE OFFERINGS

LING 280  Introduction to Linguistics
3.000 Credits
The basic concepts, scope, and methodology of the descriptive and historical study of the English language. (F,W,S).

LING 281  Language, Thought, and Culture
3.000 Credits
A practical application of linguistic principles to many aspects of human behavior. Some of the topics covered will be language and thought, first and second language acquisition, social dialects, and reading. (OC).
LING 375  Psychology of Language
3.000 Credits
Prerequisites: PSYC 171 or PSYC 170 or LING 280
The nature of human language as seen from the perspective of experimental psychology. The course introduces the student to current developments in linguistic theory. (OC).

LING 383  American English
2.000 TO 3.000 Credits
Prerequisites: LING 280 or LING 281
The development of American English and its dialects interpreted in the light of cultural history and processes of language change.

LING 385  Gender Differences in Language
3.000 Credits
Prerequisites: LING 280 or LING 281
Examines theories of differences between male and female speakers of English, focusing on phonological, syntactic, semantic, stylistic, and conversational features, with analyses of differences in speaking strategies and agendas of male and female speakers, as well as split-gender language situations in the workplace, home, and social settings.

LING 388  Language Pathologies
3.000 Credits
Prerequisites: LING 280 or LING 281
A survey of language pathologies, spoken and written; production and reception; primary and secondary (those arising from other medical dysfunctions: stroke, muscular dystrophy, multiple sclerosis, cerebral palsy, cleft, deafness). Attention to pathologies related to psychoses and neurological disorders. (AY).

LING 390  Topics in Linguistics
3.000 Credits
Prerequisites: LING 280 or LING 281
Examination of problems and issues in selected areas of linguistics. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

LING 391  Independent Study
3.000 Credits
Prerequisites: LING 280 or LING 281
Readings or analytical assignments in linguistics in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor. May be repeated for a maximum of 6 credit hours. (F,W).

LING 425  Language and Society
3.000 Credits
Prerequisites: ANTH 101 or LING 280 or LING 281
An examination of the social functions of speech through readings and exercises, emphasizing schools and other applied settings. Topics include ethnic and social class dialects, codeswitching, and the organization of conversation. Students cannot receive credit for both LING 425 and LING 525. (YR).

LING 461  Modern English Grammar
3.000 Credits
Prerequisites: LING 280 or LING 281 or LING 480 or LING 480
The morphological and syntactic analysis of the structure of present day English considered in the light of modern linguistic science. Students cannot receive credit for both LING 461 and LING 561.

LING 464  Contemporary Rhetorical Theory
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Prerequisites: COMM 2015 or COMM 220 or COMM 250 or COMM 260 or COMM 280 or COMM 290 or ENGL 200 or ENGL 223 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240 or ENGL 248 or ENGL 250
An examination of contemporary rhetorical theories through study of representative practitioners and related developments in linguistics, philosophy, psychology, communication, and composition and rhetoric. Students may not receive credit for both LING 464 and LING 564.

LING 465  Discourse Analysis
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Prerequisites: LING 280 or LING 281
An examination of the syntactic and semantic devices and structures underlying communication in written texts and oral interaction. Material to be analyzed will vary from term to term (technical reports, scholarly articles, newspaper stories) but examples will be drawn primarily from the written language. Students cannot receive credit for both LING 465 and LING 565. (OC).

LING 474  Secon Lang Acquisition: Engl
3.000 Credits
Prerequisites: LING 280 or LING 281 or LING 480
A survey of fundamental concepts and major concerns in the study of English as a Second Language (ESL). The course examines a variety of psycholinguistic and sociolinguistic issues related to second language acquisition (SLA), ranging from theoretical to pedagogical. A primary focus is on developmental patterns and cognitive processes of SLA and individual variation in ESL speakers in terms of their social motivations and learning strategies. Implications for practical concerns such as the ESL teaching profession, instructional materials and curriculum development will be addressed where relevant.

LING 475  Arab American English
3.000 Credits
Prerequisites: LING 280 or LING 281 or LING 480
The study of the development, features, functions, and significance of varieties of English in the Arab American community. A range of sociolinguistic approaches are explored and applied to the subject matter. Topics to be addressed include code switching, language shift and maintenance, and the role of language in identity formation. Students cannot receive credit for both LING 475 and LING 575.

LING 476  Sociolinguistics
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Prerequisites: LING 280 or LING 480
An examination of sociolinguistic approaches to the issue of variation in language. Areas to be considered include ways of defining and constructing language, different types of language varieties, how variation is structured in language, the role of sociolinguistic variation in linguistic change, and the significance of linguistic acts of identity. (YR)

**LING 477  African American English**
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: LING 280 or LING 281 or LING 480

An examination of the structure, history and use of African-American English. Topics will include the pronunciation, grammar and vocabulary of African-American English, theories of origin, linguistic repertoire and code-switching in African-American communities, the Ebonics controversy, and the role of this variety in education and identity formation. Students cannot receive credit for both LING 477 and LING 577.

**LING 480  Concepts in Linguistics**
3.000 Credits
May not be enrolled in one of the following Classes: Graduate

An examination of foundational concepts in linguistic and sociolinguistic theory, which explores the intellectual and philosophical problems raised by these concepts. Issues covered include the metalinguistic nature of language studies, the relation of language to the communication systems of other species, the physiological basis of language, language variation, language function and instrumentality, and innate versus learned behavior. Designed for students pursuing the Endorsement in ESL Teaching. (YR)

**LING 482  History of the English Lang**
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: LING 280 or LING 480

A thorough grounding in the history and structure of the English language. At issue are the linguistic and ideological origins of the concept of Standard English, and the strengths and limitations of different methods of analyzing the history of the language. The course will emphasize sound change, grammatical change, and their sociolinguistic context. (YR)

**LING 484  World Engishes**
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Prerequisites: LING 280 or LING 480

A study of the origin and significance of different forms of English throughout the world. Contact with other languages, pidginization, creolization, standardization, and the formation of the three circles of English are examined. (YR)

**LING 490  Topics in Linguistics**
3.000 Credits

Examination of problems and issues in selected areas of linguistics. Titles as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

**LING 499  Advanced Independent Studies**
1.000 TO 3.000 Credits
Prerequisites: LING 280 or LING 480

Advanced research project in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor.

### Mathematics

Students who desire to major or minor in mathematics do so for a number of reasons. Some of these include
1) those who wish specifically to become teachers of mathematics in high school;
2) those whose interests lie primarily in the study of mathematics as a science, the purpose of such students being usually to continue their studies at the graduate level;
3) those whose interests lie in the field of engineering and/or physics, with emphasis on applied mathematics;
4) those whose interests lie in the fields of biology, chemistry, or economics;
5) those who wish to study mathematical statistics;
6) those whose interests lie primarily in computers and computational mathematics.

**PREREQUISITES TO THE MAJOR**

Students desiring to major in mathematics are required to have successfully completed MATH 115, 116, 200, 215, 216, 227, and CCM 172 or CIS/CCM 150.

### MAJOR REQUIREMENTS

**Required courses**

A total of at least 30 hours of coursework must be elected in mathematics and cognate areas at the 300/400, 3000/4000 levels. Students are required to elect 24 hours of coursework in mathematics including:

1. Courses chosen in accordance with one of the following two options:
   a) **Algebra Option**: elect 412, 413, 451, and at least one of 452, 492 and 455.
   b) **Analysis Option**: elect 412, 451, either 452 or 492, and at least one of 331, 395, 413 and 455.


3. Any two other mathematics courses numbered 300 through 499 approved for Mathematics majors.

**COGNATES – 6 credits upper level (300/400 and 3000/4000) from the following:**

CCM, CHEM (including CHEM 225 and 226**); CIS (including CIS 200 and 290**); ECON 305, 415; IMSE (except 334); ME; PHIL 350, 485; PHYS; STAT (Only one of STAT 301, 325, 363 can be used to satisfy this requirement; STAT 363 may be used as a cognate only if a 400/4000 level STAT course is used as the second cognate)

**Notes:**

1. Students who wish to use graduate-level courses, numbered 500 or higher, as part of the 24 hours of upper-level coursework required for the major, must submit a petition to obtain the approval of the Program Advisor in Mathematics.
2. Students seeking secondary teacher certification must take MATH 331, MATH 486, EDD 450 and EDD 451. Also, MATH 395 and a course in statistics are recommended for such students. None of the following MATH courses may be used to fulfill any requirements of either a Mathematics major or a Mathematics minor: 363, 385, 386, 387, 442, 443, 444, 445, 446, 447, 449 and 486.

3. Applied Statistics courses (STAT) cannot be used to fulfill the Math major or minor/area requirements.

4. At least 12 of the 24 upper level hours in mathematics must be elect ed at UM-Dearborn in order to graduate.

5. In order to enroll in a mathematics class, a student must have earned a grade of at least C- in all prerequisite mathematics courses; a grade below C- signals that the student should immediately repeat the course in order to build a stronger foundation for subsequent study. The same principle applies when a mathematics course is a prerequisite for courses of other disciplines.

CREDIT BY EXAMINATION

The department grants credit for Calculus I to those students who have received a score of three, four, or five on the AB Exam or a score of three on the BC Exam of the Advanced Placement Program Tests of the College Entrance Examination Board. Credit is granted for both Calculus I and Calculus II to those students who have received a score of four or five on the BC Exam of the Advanced Placement Program Tests. In each case, the student is then eligible to elect the next calculus course in the calculus sequence.

MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours in mathematics courses approved for upper-level credit in the mathematics concentration program.

Math (MATH) COURSE OFFERINGS

MATH 080 Introductory Algebra
3.000 Credits
Prerequisites: MPLS 080

Topics include operations with signed numbers, translation from words into mathematical language, introduction to operations with polynomials and factoring polynomials, linear equations and inequalities, graphing, radicals, and quadratic equations. This course is offered as a service to students who need extra preparation in algebra skills as well as students who have never had algebra. The course is graded on an A, B, C, no credit basis. Students intending to elect this course should have taken at least one year of high school mathematics. This course is offered for additive credit. (F,W).

MATH 090 Intermediate Algebra
3.000 Credits
Prerequisites: MATH 080 or MPLS 090

A continuation of introductory algebra. Emphasis is on extending introductory concepts as well as introducing new concepts, functions and functional notation. Factoring polynomials, simplifying rational expressions, solving linear and quadratic equations and inequalities, solving systems of equations, rational exponentials and radicals, and graphing of parabolas and circles. The course is graded on A, B, C, no credit basis. Students intending to elect this course should have taken at least one year of high school mathematics. This course is offered for additive credit. (F,W,S).

MATH 104 Precalculus (Mgt, Life, & Soc Sci
4.000 Credits
Prerequisites: MATH 090 or MPLS 105

Primary purpose of this course is to prepare students for success in Calculus I. Topics include equations and inequalities; linear, quadratic, polynomial, rational, logarithmic, and exponential functions along with their graphs; applications of these functions; systems of linear inequalities. This course does not cover trigonometric functions and cannot be used as a prerequisite for MATH 115. Students electing this course should have taken at least two years of High School Algebra and one year of High School Geometry or MATH 090. Students cannot receive credit for both MATH 104 and MATH 105. (F,W,S)

MATH 105 Pre-Calculus
4.000 Credits
Prerequisites: MATH 090 or MPLS 105

Primary purpose of this course is to prepare students for success in Calculus. Topics include equations and inequalities; linear, quadratic, polynomial, rational, logarithmic, exponential and trigonometric functions along with their graphs; applications of these functions. Students electing this course should have taken at least two years of High School Algebra and one year of High School Geometry or MATH 090. Students cannot receive credit for both MATH 104 and MATH 105. (F,W,S)

MATH 113 Calculus I: Mgt, Life and Soc Sci
4.000 Credits
Prerequisites: MATH 105 or MATH 104 or MPLS 115

Primarily a study of the differential and integral calculus of algebraic, logarithmic, and exponential functions of one variable. Topics include limits, continuity, differentiation, integration, graphing, marginal analysis, optimization, related rates, and area. Designed for students in management, social sciences, and some of the biological sciences. (This course does not fulfill the calculus requirements for concentration in chemistry, physics, biochemistry, engineering, or mathematics. Credit cannot be received for both MATH 113 and MATH 115.) (F,W,S).

MATH 114 Calculus II: Mgt, Life, and Soc Sci
4.000 Credits
Prerequisites: MATH 113 or MATH 115 or MPLS 116

Multivariable calculus (including partial differentiation and multiple integrals) and some elementary differential equations. Introduction to probability and statistics (including the normal distribution) and sequences and series. Students cannot receive credit for both MATH 114 and MATH 116. (W).

MATH 115 Calculus I
4.000 Credits
Prerequisites: MATH 105 or MPLS 115

Functions and their graphs; limits and continuity of functions, differentiation, algebraic and trigonometric functions, applications of derivatives, definite and indefinite integrals, and applications of definite integral. This course includes computer labs. Students cannot receive credit for both MATH 113 and MATH 115. (F,W,S).
MATH 116  Calculus II  
4.000 Credits  
Prerequisites: MATH 115 or MPLS 116  

Transcendental functions, techniques of integration, improper integrals, infinite sequences and series, Taylor's theorem, topics in analytic geometry, polar coordinates, and parametric equations. This course includes computer labs. Students cannot receive credit for both MATH 114 and MATH 116. (F,W,S).

MATH 131  Conceptual Mathematics  
4.000 Credits  
The purpose of Math 131 is to develop an awareness of the use of mathematics in the world around us. Students are encouraged to understand organizational tools of mathematics, including set theory and the use of deductive logic. Areas of application may include: consumer Mathematics, Probability, Statistics, social decision making, apportionment, graph theory, and mathematical modeling. Students intending to elect this course should have taken the equivalent of one year of high school algebra and one year of high school geometry. This course is not open to mathematics concentrators. (F,W,S).

MATH 200  Math Proof and Structures  
2.000 Credits  
Prerequisites: MATH 116 or MPLS 215  

This course is required for students who wish to complete a Mathematics concentration, and is a prerequisite for many upper-level mathematics courses, e.g., MATH 331, 412, 413, 451, and 492, among others. The course covers basic mathematical concepts needed in upper-level mathematics courses, including set theory, logic, understanding the logical structure of mathematical statements, and strategies for and methods of mathematical proof. Additional topics may include equivalence relations, functions and mappings, and algebraic structures. (F,W).

MATH 205  Calc III for Engin Students  
3.000 Credits  
Prerequisites: MATH 116 or MPLS 215  

Vectors in the plane and space, topics from multivariable calculus including partial differentiation and multiple integration, with an emphasis on applications, and line integrals and Green's theorem. This course includes computer labs. Students cannot receive credit for both MATH 205 and MATH 215. (F,W,S).

MATH 215  Calculus III  
4.000 Credits  
Prerequisites: MATH 116 or MPLS 215  

Vectors in the plane and space, vector-valued functions and curves, functions of several variables including limits, continuity, partial differentiation and the chain rule, multiple integrals and coordinate transformations, integration in vector fields, and Green's and Stokes' theorems. This course includes computer labs. Students cannot receive credit for both MATH 205 and MATH 215. (F,W).

MATH 216  Intro to Diff Equations  
3.000 Credits  
Prerequisites: MATH 205 or MATH 215  


MATH 217  Intro to Matrix Algebra  
2.000 Credits  
Prerequisites: MATH 114 or MATH 116 or MPLS 215  

Systems of equations, matrices, determinants, the n-dimensional real vector spaces, orthonormal basis, linear transformations, and eigenvalues and eigenvectors. Students cannot receive credit for both MATH 217 and MATH 227. (F,W,S).

MATH 227  Introduction to Linear Algebra  
3.000 Credits  
Prerequisites: MATH 116 or MPLS 215  

An introduction to the theory and methods of linear algebra with matrices. Topics include: systems of linear equations, algebra of matrices, matrix factorizations, vector spaces, linear transformations, eigenvalues and eigenvectors, science and engineering applications, and computational methods. Students cannot receive credit for both MATH 227 and MATH 217. (F,W,S).

MATH 297  The Nature of Mathematics  
3.000 Credits  

Mathematics will be presented in a way so that Honors Program students (including nonscience majors) can learn what makes mathematics a fascinating field of study rather than a collection of dry formulas. A few "Great Theorems" will be studied in their historical context, inter-connections between mathematics and science will be studied, and some famous personalities will be presented. Open only to students in the CASL Honors Program.

MATH 301  Biostatistics I  
3.000 Credits  
Prerequisites: MATH 113 or MATH 115  

Samples and populations, quantitative vs. categorical data; clinical vs. epidemiological studies; comparative displays and analysis; linear regression. Estimation of effect size is emphasized along with the P-value for a statistical test: difference of means in simple comparative data together with a confidence interval and t-test; relative risk for appropriate categorical data; slope of a regression line together with a confidence interval and t-test. Study design is emphasized: clinical trials in experimental settings; case-control and cohort studies in epidemiological settings. Students are expected to make presentations interpreting and reporting the results of research from the literature. Students can receive credit for only one of MATH 301, MATH 363, STAT 301, CRJ 383, SOC 383, STAT 325.

MATH 315  Applied Combinatorics  
3.000 Credits  
Prerequisites: MATH 200 and (MATH 227 or MATH 217)  

An introduction to methods and applications of enumerative and configural combinatorics. Students study several elegant and useful techniques for counting and/or generating the elements in large and unwieldy finite sets. Students also study topics in graph theory that are applicable to real world problems. Topics include basic counting
principles, the principle of inclusion-exclusion, generating functions and recurrence relations. Topics from graph theory include graph models, paths, circuits, cycles, connectedness; additional topics include the theory and applications of planarity, coloring, directed graphs, networks, and network flows.

**MATH 325 Mathematical Statistics I**
3.000 Credits
Prerequisites: MATH 114 or MATH 116

Brief overview of summary and display of data, probability concepts, discrete and continuous random variables and associated probability models, expectation, independent random variables, probability generating functions and moment generating functions, sampling distributions, the central limit theorem, the t-distribution, properties of estimators, and interval estimation. (F).

**MATH 331 Survey of Geometry**
3.000 Credits
Prerequisites: MATH 116 and MATH 200

A development of Euclidean geometry as a formal axiom system and an introduction to non-Euclidean geometries and to Transformational Geometry. Geometric models and the history of geometry are stressed. Development of students’ geometric intuition as well as their ability to work in a formal axiom system is emphasized. (F).

**MATH 363 Introduction to Statistics**
3.000 Credits

Frequency distributions and descriptive measures. Populations, sampling, and statistical inference. Elementary probability and linear regression. Use of statistical computer packages to analyze data. Students can receive credit for only one of MATH 363, STAT 363, SOC 383, and STAT 325. Students intending to elect this course should have taken at least one year of high school algebra. (F,W,S).

**MATH 372 Computing with Mathematica**
3.000 Credits
Prerequisites: MATH 217 or MATH 227

The course explores a variety of topics from different areas of undergraduate mathematics including calculus, matrix algebra, number theory, geometry, and discrete mathematics. Students learn to design customized Mathematica functions to solve specific problems in these areas using the symbolic, computational, graphics and programming tools provided within Mathematica. (AY,W).

**MATH 385 Math for Elem Teachers I**
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser

The purpose of this course and the Math 386 and Math 387 courses is to provide future teachers with foundational knowledge of mathematics they will teach. An inquiry approach is emphasized involving problem solving, problem posing, pattern seeking, reasoning, justification, representations, and communication. Topics in Math 385 include numeration, meaning of operations, the reasoning behind procedures, and the rational number system, including fractions and decimals. (F,W)

**MATH 386 Math for Elem Teachers II**
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Prerequisites: MATH 385

The purpose of this course and the Math 385 and Math 387 courses is to provide future teachers with foundational knowledge of mathematics they will teach. An inquiry approach is emphasized involving problem solving, problem posing, pattern seeking, reasoning, justification, representations, and communication. Topics in Math 386 include number theory, proportional reasoning, the geometry of two-dimensional shape and measurement, integers, and the real number system. (F,W)

**MATH 387 Math for Elem Teachers III**
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Prerequisites: MATH 386

The purpose of this course and the Math 385 and Math 386 courses is to provide future teachers with foundational knowledge of mathematics they will teach. An inquiry approach is emphasized involving problem solving, problem posing, pattern seeking, reasoning, justification, representations, and communication. Topics in Math 387 include data analysis; probability; the geometry of three-dimensions including shape, spatial visualization, and measurement; geometric concepts of similarity and congruence; coordinate geometry; and transformational geometry. Algebraic reasoning is integrated throughout. (F,W)

**MATH 390 Topics in Mathematics**
1.000 TO 3.000 Credits

A course designed to offer selected topics in different areas of mathematics. The specific topic or topics will be announced together with the prerequisites each term. Course may be repeated for credit when specific topics differ.

**MATH 391 Topics in Mathematics Education**
1.000 TO 3.000 Credits

A course designed to offer selected topics in mathematics related to K-12 education. The specific topic or topics will be announced together with the prerequisites each term. Course may be repeated for credit when specific topics differ. (OC).

**MATH 395 Elementary Number Theory**
3.000 Credits
Prerequisites: MATH 205 or MATH 215

Properties of the integers, the division algorithm, Euclid's algorithm, Fermat's theorems, unique factorization of integers into primes, congruences, arithmetic functions, Diophantine equations, continued fractions, quadratic reciprocity. (W).

**MATH 399 Independent Studies in Math**
1.000 TO 3.000 Credits

Independent study in mathematics for topics at the junior level. Topics and objectives chosen by agreement between student and instructor.

**MATH 404 Dynamical Systems**
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)
The aim of this course is to survey the standard types of differential equations. This includes systems of differential equations, and partial differential equations, including for each type, a discussion of the basic theory, examples of applications, and classical techniques of solutions with remarks about their numerical aspects. Also included are autonomous and periodic solutions, phase space, stability, perturbation techniques and Method of Liapunov. Students cannot receive credit for both MATH 404 and MATH 504. (AY).

MATH 405 Integral Equations
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)
Origin and classification of integral equations, connections with differential equations, integral equations of convolution type, method of successive approximations, single kernels, elements of Hilbert space, linear operators, resolvents, Fredholm theory and Hilbert-Schmidt theory. Students cannot receive credit for both MATH 405 and MATH 505. (OC).

MATH 412 First Course in Modern Algebra
3.000 Credits
Prerequisites: MATH 200 and (MATH 217 or MATH 227)
Introduction to groups, subgroups, group homomorphisms, factor groups, simple groups, cyclic groups. Sylow theorems, rings, ideals, integral domains, fields, polynomial rings, Kronecker's theorem, also properties of the integer, rational, real, and complex numbers. Students cannot receive credit for both MATH 412 and MATH 512. (W).

MATH 413 Linear Algebra
3.000 Credits
Prerequisites: MATH 200 and MATH 216 and (MATH 217 or MATH 227)
Vector spaces, linear transformations and matrices, determinants, inner product spaces, bilinear and quadratic forms, Hamilton-Cayley theorem, eigenvalues and eigenvectors, and spectral theorem. Students cannot receive credit for both MATH 413 and MATH 513. (F).

MATH 420 Stochastic Processes
3.000 Credits
Prerequisites: MATH 217 or MATH 227
Review of distribution theory. Introduction to stochastic processes, Markov chains and Markov processes, counting, and Poisson and Gaussian processes. Applications to queuing theory. Students cannot receive credit for both MATH 420 and MATH 520. (AY,W).

MATH 425 Mathematical Statistics II
3.000 Credits
Prerequisites: MATH 325
Interval estimation and pivotal quantities, maximum likelihood estimation, hypothesis tests, linear models and analysis of variance, bivariate normal distribution, regression and correlation analysis, and nonparametric methods. Students cannot receive credit for both MATH 425 and MATH 525. (AY,S).

MATH 442 Geometry for Teachers
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Prerequisites: MATH 387
Properties of two and three-dimensional figures are covered, including congruence, symmetry, transformation, and measurement. Trigonometry from a geometric perspective and the use of trigonometry in problem solving are included. Topics also include coordinate geometry and visualization as well as the nature of axiomatic reasoning and the role it has played in the development of mathematics. An investigative approach involving problem solving, reasoning and proof, connections, and communication will be emphasized. Calculator and computer technology will support the investigation of these topics. Classroom resources and materials are considered. Different levels of geometric thinking will be explored. No credit for CASL concentration, minor, or area of focus. Open only to certified teachers or elementary education students. Student cannot receive credit for both MATH 442 and MATH 542.

MATH 443 Algebra for Teachers
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Prerequisites: MATH 386
Algebraic structure is emphasized, especially as it relates to arithmetic. Emphasis is on the development of algebraic reasoning and generalizations with the appropriate pedagogy. Curriculum issues relevant to teaching algebra for conceptual understanding are included. Major topics include algebraic representations of linear, exponential, power and quadratic patterns, systems of equations, and applications. An investigative approach involving problem solving, reasoning and proof, connections and communications will be emphasized. Classroom resources and materials are considered as well as calculators and computer technology as problem-solving tools to aid in algebraic thinking. No credit for CASL concentration, minor or area of focus. Students cannot receive credit for both MATH 443 and MATH 543. (F, W, S).

MATH 444 Data Anlys, Prob&Stat for Tchrs
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Prerequisites: MATH 387
Concepts of probability using both experimental and theoretical models are considered with an emphasis on the use of probability models to describe physical phenomena and to make and interpret predictions. Topics in data analysis and statistics include drawing inferences from visual displays of data, applying techniques of inferential statistics, sampling and simulations to generate solutions to problems, and making appropriate inferences using best fit techniques. Evaluating data and arguments to establish validity, interpreting, calculating and solving problems related to correlation, distributions, percentiles and standard scores are also included. An investigative approach involving problem solving, reasoning and proof, connections, and communication will be emphasized. Calculator and computer technology will support the investigation of these topics. No credit for CASL concentration, minor, or area of focus. Open only to certified teachers or elementary education students. Student cannot receive credit for both MATH 444 and MATH 544.

MATH 445 Number & Prop'l Rsng for Tchrs
3.000 Credits
Prerequisites: MATH 442 and MATH 443
This course deepens previous work on rational number ideas and applications, and explores the concepts of ratio and proportion. Content includes a variety of situations involving proportions, for example, real-world problems involving ratios, rates, and percents, geometry involving similarity, algebra involving linearity, probability involving assigning a probability to an event, and trigonometry involving slope. Distinguishing proportional situations from those that are not and reasoning proportionally in appropriate situations are emphasized. The course includes problem solving, reasoning and proof, connections, communication, and multiple representations. No credit for CASL concentration, minor, or area of focus. Open only to certified teachers or elementary education students or by permission of instructor. Students cannot receive credit for both MATH 445 and MATH 545. (AY).

MATH 446 Discrete Math/Modeling for Tech
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Prerequisites: MATH 442 and MATH 443

This course interweaves the ideas of discrete mathematics with the approaches and strategies of mathematical modeling. It gives pre- and inservice teachers opportunities to deepen their understanding and use of mathematical models based on the concepts of discrete mathematics. Topics include recurrence, induction, permutations, combinations, binomial distributions, circuits, critical paths, minimal spanning trees, adjacency matrices, algorithm design and optimization. Systems thinking and multiple representations are emphasized. No credit for CASL concentration, minor, or area of focus. Open only to certified teachers or elementary education students. Students cannot receive credit for both MATH 446 and 546. (AY).

MATH 447 Micro in Math for Teachers
2.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Prerequisites: MATH 385

Use of the microcomputer in the mathematics classroom with an emphasis on the LOGO programming language. Problem solving, hands-on activities, and a cooperative learning environment are emphasized. Students cannot receive credit for both MATH 447 and MATH 547.

MATH 449 Concepts of Calc for Teachers
3.000 Credits
Prerequisites: MATH 442 and MATH 443

Concepts of Calculus for Teachers focuses on calculus concepts appropriate for middle school mathematics teachers and teacher-candidates. The course provides a deep understanding of the major concepts of calculus: rates of change, accumulation (net change), area, and limits. Students experience concrete approaches to the various topics using problem solving, manipulative and technology as appropriate, with the intent being to help the learners discover how the ideas of calculus are useful in a variety of settings. Visual, numeric and commonsense approaches will be used. No credit for CASL concentration, minor, or area of focus. Open only to certified teachers or elementary education students. Students cannot receive credit for both MATH 449 and 549. (AY)

MATH 451 Advanced Calculus I
3.000 Credits
Prerequisites: MATH 200 and MATH 216 and (MATH 217 or MATH 227)

Properties of the real number system; point set theory for the real line including the Bolzano-Weierstrass theorem; sequences, functions of one variable: limits and continuity, differentiability, Reimann integrability. Students cannot receive credit for both MATH 451 and MATH 551. (F).

MATH 452 Advanced Calculus II
3.000 Credits
Prerequisites: MATH 451

Includes the rigorous study of functions of two and more variables, partial differentiation and multiple integration. Special topics include: Taylor Series, Implicit Function Theorem, Weierstrass Approximation Theorem, Arzela-Ascoli Theorem. Students cannot receive credit for both MATH 452 and MATH 552. (AY,W).

MATH 454 Fourier and Boundary
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)

Fourier series and integrals. Their use in solving boundary value problems of mathematical physics by the method of separation of variables. Sturm-Liouville theory and generalized Fourier series, including those involving Bessel functions and Legendre polynomials, with applications. Students cannot receive credit for both MATH 454 and MATH 554. (F).

MATH 455 Func of a Complex Var with App
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: MATH 216 and (MATH 217 or MATH 227)

Complex number system. Functions of a complex variable, their derivatives and integrals. Taylor and Laurent series expansions. Residue theory and applications, elementary functions, conformal mapping, and applications to physical problems. Students cannot receive credit for both MATH 455 and MATH 555. (W).

MATH 458 Introduction to Wavelets
3.000 Credits
May not be enrolled in one of the following Colleges:
No College Designated
Prerequisites: MATH 216 and (MATH 217 or MATH 227)

This course will introduce the students to theory and application of wavelets using linear algebra. Topics will include the discrete Fourier transform, the fast Fourier transform, linear transformations, orthogonal decomposition, discrete wavelet analysis, the filter bank, Haar Wavelet family, Daubechies's Wavelet family, and applications. Students cannot receive credit for both MATH 458 and MATH 558. (OC)

MATH 462 Mathematical Modeling
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)

The processes of constructing, implementing, and evaluating mathematical models of "real world" phenomena are investigated. Models involving continuous and discrete mathematical constructs are considered. Deterministic and stochastic models are compared. Examples are taken from genetics, epidemiology, queuing theory, and other fields. Students cannot receive credit for both MATH 462 and MATH 562. (F).
MATH 472  Intro to Numerical Analysis
3.000 Credits
Prerequisites: MATH 217 or MATH 227
Solution of linear systems by Gaussian elimination, solution of non-linear equations by iterative methods, numerical solution of ordinary differential equations, data fitting with spline functions, numerical integration, optimization. Students cannot receive credit for both MATH 472 and MATH 572. (F).

MATH 473  Matrix Computation
3.000 Credits
Prerequisites: MATH 217 or MATH 227
A study of the most effective methods for finding the numerical solution of problems which can be expressed in terms of matrices, including simultaneous linear equations, orthogonal projections and least squares, eigenvalues and eigenvectors, positive definite matrices, and difference and differential equations. Students cannot receive credit for both MATH 473 and MATH 573. (AY, W).

MATH 480  History of Mathematics
3.000 Credits
Prerequisites: MATH 216 and (MATH 217 or MATH 227)
A unified view of the rise of mathematics from ancient times to the present, as seen in its conceptual developments and its major themes and its applications (including computers). Students cannot receive credit for both MATH 480 and MATH 580. (OC).

MATH 486  See School Math for Teachers
3.000 Credits
Prerequisites: MATH 217 or MATH 227
Basic concepts, relationships, generalizations, and applications from the secondary school mathematics curriculum are discussed both from an advanced viewpoint and from the standpoint of the learner. Included are the roles of technology, problem solving, and current thinking on the teaching of secondary mathematics topics. Students cannot receive credit for both MATH 486 and MATH 586. (F).

MATH 492  Introduction to Topology
3.000 Credits
Prerequisites: MATH 451
Metric spaces, topological spaces, continuous maps, connectedness, compactness, separation axioms. Students cannot receive credit for both MATH 492 and MATH 592. (AY, W).

MATH 499  Independent Studies in Math
1.00 TO 3.000 Credits
Independent study in mathematics for topics at the senior level. Topics and objectives chosen by agreement between student and instructor. (OC).

Medieval and Renaissance Studies

MINOR OR BGS/LIBS AREA OF FOCUS ONLY
The minor in Medieval and Renaissance Studies is cross-cultural in design and covers the time period from Late Antiquity (ca. 400) to the seventeenth century. Through the interdisciplinary study of history, art, religion, language and literature, students will develop an integrated understanding of medieval and early modern civilization. Its legacy, along with its intellectual and social diversity, enhances our understanding not only of the past but of present society.

The minor in Medieval and Renaissance Studies consists of 15 credit hours from the courses listed below. Students must elect at least one course from Art History, History and English.

Art History

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 331</td>
<td>Early Christian and Byzantine Art</td>
</tr>
<tr>
<td>ARTH 332</td>
<td>Early Medieval and Romanesque Art</td>
</tr>
<tr>
<td>ARTH 334</td>
<td>The 14th Century</td>
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<tr>
<td>ARTH 341</td>
<td>Art and Architecture in Early Renaissance Florence</td>
</tr>
<tr>
<td>ARTH 342</td>
<td>High Renaissance and Mannerism</td>
</tr>
<tr>
<td>ARTH 343</td>
<td>Northern Renaissance Art</td>
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<tr>
<td>ARTH 344</td>
<td>Italian Renaissance Sculpture</td>
</tr>
<tr>
<td>ARTH 351</td>
<td>Southern Baroque Art</td>
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<tr>
<td>ARTH 352</td>
<td>Northern Baroque Art</td>
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<td>ARTH 454</td>
<td>Rembrandt</td>
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Comparative Literature

<table>
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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>COML 433</td>
<td>Writing Women in Renaissance</td>
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</table>

History

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIST 314</td>
<td>England: Tudors and Stuarts</td>
</tr>
<tr>
<td>HIST 329</td>
<td>Medieval Society</td>
</tr>
<tr>
<td>HIST 330</td>
<td>The Renaissance</td>
</tr>
<tr>
<td>HIST 331</td>
<td>The Reformation Era: 1500-1648</td>
</tr>
<tr>
<td>HIST 4312</td>
<td>European Encounters: 1400-1800</td>
</tr>
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</table>

English

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<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 371</td>
<td>Survey of English Literature from Beginning -1500</td>
</tr>
<tr>
<td>ENGL 372</td>
<td>Survey of English Literature: 1500 to 1600</td>
</tr>
<tr>
<td>ENGL 373</td>
<td>Survey of English Literature: 1600-1660</td>
</tr>
<tr>
<td>ENGL 400</td>
<td>Major English Authors of the Middle Ages</td>
</tr>
<tr>
<td>ENGL 401</td>
<td>Literature of Anglo-Saxon England</td>
</tr>
<tr>
<td>ENGL 404</td>
<td>Medieval Mystical Writers</td>
</tr>
<tr>
<td>ENGL 405</td>
<td>Chaucer</td>
</tr>
<tr>
<td>ENGL 406</td>
<td>Studies in Medieval Literature and Culture</td>
</tr>
<tr>
<td>ENGL 408</td>
<td>Shakespeare I: Earlier Works</td>
</tr>
<tr>
<td>ENGL 409</td>
<td>Shakespeare II: Later Works</td>
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<td>ENGL 410</td>
<td>Major English Authors of the Renaissance</td>
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<tr>
<td>ENGL 412</td>
<td>Milton</td>
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<tr>
<td>ENGL 413</td>
<td>English Renaissance Drama, Excluding Shakespeare</td>
</tr>
<tr>
<td>ENGL 414</td>
<td>Seventeenth-Century Readings</td>
</tr>
</tbody>
</table>

Microbiology

The field of microbiology encompasses the study of a wide diversity of organisms, including archaea, bacteria, fungi and viruses. The program in microbiology is designed to prepare students for laboratory positions in industry, government, and university research. The program also provides a foundation for graduate work in microbiology, virology, molecular biology, medicine and other areas. Certification is possible by special examination upon graduation.

PREREQUISITES TO THE MAJOR

A solid background in mathematics is essential to success in any of the scientific disciplines. Incoming students who intend to choose a major in Microbiology should have completed at least three years of high school mathematics. First year students should plan to enroll in MATH 104 or 105; 113 or 115; or 114 or 116 based on the results of their math placement tests. CHEM 134 or 144 and 136 or 146 are prerequisites to many
other courses in the Natural Sciences Department; students majoring in any of the sciences should complete this sequence as soon as possible.

Biol 130 and 140 ........................................... 8 hrs
Chem 124 and 136 or 146 .................................. 8 hrs
Chem 225, 226 and 227 .................................. 8 hrs
Math 113 and 114 (preferred sequence)
OR
Math 115 and 116 .......................................... 8 hrs
Phys 125 and 126 (preferred sequence)
OR
Phys 150 and 151 .......................................... 8 hrs

MAJOR REQUIREMENTS

A minimum of 29 credit hours in Microbiology or Biological Sciences must be completed as outlined below:

Note: Students should begin the chemistry sequence before electing any MICR/Biol course.

Required courses

AREA A: All of the following (minimum 12 hours required):

MICR 385 Microbiology ................................... 4 hrs
MICR 406 Microbial Genetics ............................. 3 hrs
MICR 440 Micro Genetics & Physi Lab ..................1 hr
MICR 485 Physiology of Microorganisms ............3 hrs

At least one credit hour from the following*

MICR 495 Off-campus Research in Microbiology ...
........................................................................1-3 hrs
MICR 497 Seminar in Microbiology ....................1 hr
MICR 498 Independent Study in Microbiology ...
........................................................................1-3 hrs
MICR 499 Laboratory in Microbiology Research ...
........................................................................1-3 hrs

*Note: No more than a total of six credit hours combined in MICR 495, 498, and 499 may be applied toward the 120 credit hours required for graduation. Both MICR 498 and 499 require independent study contracts agreed upon by a faculty member.

AREA B:
One of the following organismal/environmental courses:

MICR 309 Introduction to Mycology ...................4 hrs
MICR 405 Applied and Envir Microbiology ........4 hrs

AREA C:
Complete an additional 13 credit hours (to reach minimum 29 hours required for the major) from the following list, of which at least four credit hours must be from microbiology courses (MICR).

MICROBIOLOGY COURSES

MICR 380 Epidemiology ................................... 2 hrs
MICR 390 Topics in Microbiology ....................... 1-6 hrs

MICR 430 Medical Virology ................................3 hrs
MICR 450 Virology ........................................... 4 hrs
MICR 455 Immunology ...................................... 4 hrs
MICR 459 Pathogenic Microbiology ...................4 hrs
MICR 495 Off-campus Research in Microbiology ...
........................................................................1-3 hrs
MICR 497 Seminar in Microbiology Research ....1 hr
MICR 498 Independent Study in Microbiology .....1-3 hrs
MICR 499 Lab in Micro Research .......................1-3 hrs

*Note: All 400-level microbiology courses have MICRO 385 as a prerequisite.

Biological Sciences Courses

Biol 301 Cell Biology ...................................... 4 hrs
Biol 306 General Genetics ............................... 3 hrs
Biol 310 Histology .......................................... 4 hrs
Biol 370 Principles of Biochemistry .................... 3 hrs
Biol 390 Topics in Biological Sciences ............... 1-4 hrs

Cognates ....................................................... 6 hrs
A minimum of six credit hours upper level courses from the following:

BChem, Chem, Enst, ESCI, Geol, Phys, Math 325,
Stat 325 or 363, Phil 442, 485, Anth 430, 435, Psych 370,
Soc 440

Other appropriate courses with approval of program advisor by petition.

NOTES:

1. A maximum of 44 hrs of MICR or Biol may count in the 120 hrs required for graduation.
2. A maximum of 36 hrs from Areas A, B, and C may count toward the 120 hours required for graduation.
3. At least 12 of the 29 hrs of upper level hours used toward the major must be elected at UM-Dearborn.
4. A maximum of 6 hrs of Independent Study (courses numbered 495, 498, 499) in any science discipline may count in the 120 hours to graduate.
5. A maximum of 6 hrs combined in MICR/Biol 495, 498, 499 may be applied toward the 29 hours required in the major.

MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in microbiology (MICR).

MICROBIOLOGY (MICR)

COURSE OFFERINGS

MICR 309 Introduction to Mycology
4.000 Credits
Prerequisites: Biol 130 and Biol 140

An introduction to the biology of the fungi. Classification, structure, industrial use, gastronomic qualities, and disease-producing ability of macroscopic and microscopic forms are studied. Laboratories include microscopic and macroscopic examinations of fungi, and their growth and field studies on the occurrence and classification of edible and poisonous varieties. Three hours lecture, four hours laboratory. (OC).

MICR 380 Epidemiology
2.000 Credits
Prerequisites: Biol 140

A study of disease occurrence and spread in human populations. The primary concern is with groups of persons, rather than individuals. Emphasizes methods of study that would contribute to understanding disease etiology. Two hours lecture. (OC).
MICR 385  Microbiology  
4.000 Credits  
Prerequisites: BIOL 130 and BIOL 140  
Co-requisites: MICR 385L  

The biology of microorganisms is considered through study of the properties of bacteria, fungi, algae, protozoa, and viruses. Microbial structures are discussed and correlated with their function. Aspects of cellular metabolism pertinent to microorganisms are emphasized. The interaction of microorganisms and their environment, animate and inanimate, is discussed with respect to the beneficial or harmful effects of the different microbial groups. Laboratory exercises introduce the student to basic, practical microbiological techniques and illustrate various principles of microbial life. Three hours lecture, four hours laboratory. (F,S).

MICR 390  Topics in Microbiology  
1.000 TO 6.000 Credits  
Prerequisites: BIOL 385 or MICR 385  

Current topics in microbiology will be presented through a lecture, discussion and/or laboratory format. Topics will vary, as appropriate, and may cover any area of microbiology including studies on bacteria, algae, fungi, protozoa, viruses, biotechnology, mechanisms of pathogenesis and immunology. (OC).

MICR 405  Applied & Environ Microbiology  
4.000 Credits  
Prerequisites: MICR 385 or BIOL 385  
Co-requisites: MICR 405L  

Advanced treatment of the interplay of microorganisms and the environment. Topics will include soil and water microbiology (bacteria, archaea, fungi, algae, protozoans and viruses) and plant-microbe interactions (pathogenic and symbiotic) as well as the role of microorganisms in decomposition, nutrient cycling (carbon, nitrogen, sulfur and metal cycling), wastewater and biosolids treatment, and bioremediation. 3 hr lec, 1-4 hr lab. For graduate credit elect MICR 505.

MICR 406  Microbial Genetics  
3.000 Credits  
Prerequisites: MICR 385 or BIOL 385  

A course that emphasizes the genetics and molecular biology of bacteria and their viruses. Topics include DNA structure and replication, recombination, DNA repair, genetic mapping, mechanisms of gene transfer, regulation of gene expression, mutagenesis, and recombinant DNA techniques. Three hours lecture, four hours laboratory per week. (AY,F).

MICR 430  Medical Virology  
3.000 Credits  
Prerequisites: MICR 385 or BIOL 385  

The course provides a general description of the history and nature of animal virus disease. Emphasis is placed on the pathogenesis and clinical description of specific diseases. Three hours lecture.

MICR 440  Micro Genetics & Physi Lab  
1.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: BIOL 385 * or MICR 385 * or BIOL 301 * or BIOL 406 * or MICR 406 * or BIOL 485 * or MICR 485 *  

This course emphasizes the use of advanced microbiological techniques for understanding the genetics and physiology of microorganisms. Experiments focus on the understanding of general microbial phenomena, such as nutrition, metabolism and biochemistry; protein and nucleic acid synthesis; energy generation, enzyme regulation, membrane transport, motility, differentiation, cellular communication and the behavior of populations.

MICR 450  Virology  
4.000 Credits  
Prerequisites: (BIOL 385 or MICR 385) and CHEM 226  

The first half of this course deals with bacterial viruses, with emphasis on classical events in this field. The second half surveys the field of animal viruses, with emphasis on recent discoveries, including replication, pathogenesis, and viral association with cancers. Three hours lecture, four hours laboratory. (AY,W).

MICR 455  Immunology  
4.000 Credits  
Prerequisites: BIOL 385 or BIOL 301 or MICR 385  

A detailed study of the field of immunology. Among the topics covered are various aspects of the immunological response, such as humoral or cell-mediated immunity, cell-cell interactions, and immunology as related to the cause and prevention of disease. Three hours lecture, four hours laboratory. (AY,F).

MICR 459  Pathogenic Microbiology  
4.000 Credits  
Prerequisites: BIOL 385 or MICR 385  

An introduction to pathogenic microorganisms and mechanisms of microbial pathogenicity. Disease-causing bacteria, fungi, viruses, and protozoa are studied. Laboratories emphasize clinical approaches to isolation, identification, and treatment. Three hours lecture, four hours laboratory. (AY,F).

MICR 485  Physiology of Microorganisms  
3.000 Credits  
Prerequisites: (BIOL 385 or MICR 385) and CHEM 225 *  

An in-depth examination of the physiology of microorganisms. Areas of emphasis include the growth and nutrition of microorganisms, the development of viruses, the microbial degradation of organic compounds, the regulation of degradation reactions, and the biosynthesis of uniquely microbial compounds and secondary metabolites, such as antibiotics and toxins. Consideration is given to the natural environments of specific microorganisms. Three hours lecture, four hours laboratory. (AY,W).

MICR 495  Off-Campus Research  
1.000 TO 3.000 Credits  

Participation in ongoing experimental research at an off-campus laboratory (or in the field). Arrangements made between the research laboratory, (director of field study), the student, and the microbiology concentration advisor. No more than 6 hours combined from MICR 495, 498, and 499 may be credited toward the 120 hours required for a degree. Four to twelve hours laboratory. Permission of concentration advisor. (F,W,S).

MICR 497  Seminar in Microbiology  
1.000 Credits  

Topics of current interest in microbiology will be presented by guest lecturers, faculty members or students. Topics chosen will vary from term to term. Can be elected up to three times. One hour seminar. Permission of instructor. (W).
MCL 105  Beginning Ancient Greek I  
4.000 Credits  
Prerequisites: MCL 104

Ancient Greek I is designed for students wishing to begin the study of Ancient Greek and will include a study of grammar and vocabulary with readings of simple Attic prose. Attention will also be given to the Greek roots of English words, including scientific and medical terms. No previous foreign language study is required as a prerequisite. (OC).

MCL 206  Intermediate Ancient Greek II  
4.000 Credits  
Prerequisites: MCL 205

MCL 206 is the second course in intermediate ancient Greek and is designed to provide knowledge and familiarity with the language and style of the Homeric epics, as well as an introduction to related topics. We will learn Homeric Greek and how it differs from Attic, read extensive selections from the Iliad or the Odyssey in Greek, and discuss Homer's works as poetic, literary, and cultural texts. The selections read will serve as the basis for translation, class discussion, and written assignments. Related topics to be presented include: the archaeological excavations of Troy, the scope of ancient epics, the Homeric Question and oral composition, and the nature of the Greek hero. (OC)

MCL 233  Second-Year Swedish  
3.000 Credits

MCL 234  Second-Year Swedish II  
3.000 Credits

MCL 299  Independent Studies in MCL  
1.000 TO 3.000 Credits

Reading or analytical assignments in Modern and Classical Languages in accordance with the needs and interests of those enrolled and agreed upon by the student, instructor and endorsed by the department chair. Also can be elected when a student is studying language as part of a study-abroad program.
MCL 325  Political Islam  
3.000 Credits  
Must be enrolled in one of the following classes: 
Sophomore  
Senior  
Junior  
This course is designed as an introduction to the main issues and themes in the study of political Islam and Muslim Politics, providing a broad overview of the pertinent key concepts and issues. It provides a historical approach to the study of political Islam, and touches upon the nineteenth century Islamic revivalism. It also, explores diversity in contemporary Islamic thought and global Islamist movements.

MCL 353  Italian Culture Civilization  
3.000 Credits  
This course is an exploration of various facets of Italian culture and civilization. We will examine the major historical, political, social, economic, artistic and literary aspects of Italy, from its beginnings to the 21st century, through the close study of key persons, events and documents which shaped Italy's culture and civilization, and promoted the many accomplishments and contributions of this country.

MCL 365  Introduction to the Qur'an  
3.000 Credits  
This course is an introduction to the Qur'an. This class will cover the historical and the cultural factors in which the Quran appeared. The class will also examine some of the major themes covered in the Qur'an such as gender, science, pluralism, worldview and so forth. Also, it will cover major schools of interpretations and methodologies ranging from the literary to the scientific. The class will be conducted in English and knowledge of Arabic is desired but not required. No prerequisites. The class will consist of lectures, discussions, and movies.

MCL 381  Postwar European Cinema  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  
The course will concentrate on a series of films from various European countries with a focus on the socio-political issues, historical events and cultural preoccupations that have defined and also challenged European societies from WWII to the present. Zeroing in on the construction of European identities, the course will analyze and compare modes of narrating national, class, racial, sexual and social differences in different European nations. Themes such as memories of war and the Holocaust, new conflicts, class, immigration, women's rights, gender, and East-West relations will be addressed. The course will thus privilege a cinema that offers a "rit" a story. Particular attention will be given to discourses on otherness and on the ways in which film culture has reflected, reinforced, reshaped and, in some instances, contested Europe's past and current dominant ideologies, and identities. Readings by cultural historians and analysts will provide the context for an understanding of the films. The course will conclude with a discussion of the possible existence of a specific postwar European Cinema.

MCL 390  Topics in Arabic in Translatn  
3.000 Credits  
Examination of problems and issues in selected areas of Modern & Classical Languages. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ.

MCL 399  Independ St in Mod & Class Lng  
1.000 TO 3.000 Credits  
Reading or analytical assignments in Modern and Classical Languages, including Arabic, in accordance with the needs and interests of those enrolled and agreed upon by the student, instructor, and endorsed by the department chair.

MCL 401  Images of Women in Germany  
3.000 Credits  
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior  
This course will focus on the position of women in Germany after WWII and up to and after the unification of East and West Germany. Particular attention will be given to the gendered history of working through the National Socialist past, the division and reconstruction of the two nation-states, and the terrorism in West Germany in the 1970's. Students will examine images of women in films and tie them to the ideologies of gender and status of women in these larger issues of German history. Course readings will be in English. Students wishing to receive German credit for the course must enroll concurrently in GER 380: Praktikum. Students cannot receive credit for both MCL 401 and MCL 501.

MCL 455  This American Life  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
Freshman  
The course "This American Life: Immigrant Literature and the American Dream" is a literary and cultural analysis of the literature of immigration. The readings are from works of fiction in a variety of genres, and are written by American and non-American prize-winning authors. Their common denominator is the pursuit of the American Dream and its many multifaceted aspects. The themes explored include: assimilation, acculturation, diversity, language, subculture, intertextuality, nostalgia, belonging, and double identity. Student wishing to take this course for graduate credit should sign up for MCL 555. Students cannot receive credit for both MCL 455 and MCL 555.

MCL 490  Topics in Modern & Class Lang  
3.000 TO 6.000 Credits  
An examination of various theoretical or practical concerns of the field of foreign language. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).
Music

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

A minor or area of focus consists of 12 hours of upper-level credit in music history (MHIS), music theory (MTHY) or applied music (MAPP) courses.

Music, Applied
(not a field of concentration, see Applied Music)

Music History (MHIS)
(not a field of concentration)

COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>MHIS 100</td>
<td>Intro to Music</td>
<td>3.000</td>
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<tr>
<td>MHIS 120</td>
<td>History of Jazz</td>
<td>3.000</td>
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<tr>
<td>MHIS 130</td>
<td>Intro to World Music</td>
<td>3.000</td>
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<tr>
<td>MHIS 311</td>
<td>Music Before Bach</td>
<td>3.000</td>
<td>MHIS 100 or MHIS 120 or MHIS 130 or MHIS 312 or MHIS 331 or MHIS 340 or MHIS 342 or MHIS 390 or MTHY 100 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390</td>
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<tr>
<td>MHIS 312</td>
<td>Music from Bach to Brahms</td>
<td>3.000</td>
<td>MHIS 100 or MHIS 120 or MHIS 130 or MHIS 311 or MHIS 313 or MHIS 331 or MHIS 340 or MHIS 342 or MHIS 390 or MTHY 100 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390</td>
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<tr>
<td>MHIS 313</td>
<td>Music Since 1900</td>
<td>3.000</td>
<td>MHIS 100 or MHIS 120 or MHIS 130 or MHIS 311 or MHIS 312 or MHIS 331 or MHIS 340 or MHIS 341 or MHIS 342 or MHIS 390 or MTHY 100 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390 or MTHY 101</td>
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<tr>
<td>MHIS 331</td>
<td>Music of America</td>
<td>3.000</td>
<td>MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or MTHY 101 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390 or MAPP 125 or MAPP 126 or MAPP 135 or MAPP 136 or MAPP 145</td>
</tr>
<tr>
<td>MHIS 332</td>
<td>Hist of Popular Mus in the USA</td>
<td>3.000</td>
<td>MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or MTHY 101 or MTHY 102</td>
</tr>
<tr>
<td>MHIS 333</td>
<td>Intro to Gospel Music</td>
<td>3.000</td>
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<tr>
<td>MHIS 334</td>
<td>Multimedia and Music</td>
<td>3.000</td>
<td>MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or MTHY 101 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390 or MAPP 125 or MAPP 126 or MAPP 135 or MAPP 136 or MAPP 145</td>
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Multimedia and Music

3.000 Credits

Prerequisites: MTHY 100 or MTHY 101 or MTHY 102 or MHIS 100 or MHIS 120 or MHIS 130 or MHIS 150

In this course, students will explore case studies of music created, performed, and distributed in combination with other media from the 1960s to the present. Multimedia is understood as any context in which several media are integrated, but particular focus will be paid to technological and creative innovations (such as video games, computers, and phones). The use of music will be considered in such media as film and television, multimedia performance and installation art, and international developments in multimedia production and distribution.
MHIS 336 Film and Music
3.000 Credits
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130

In this course, students will be introduced to the varieties of music used in film from c. 1900 to the present. Topics covered include a basic introduction to the musical features of Western European dramatic music; the role of music in the early decades of the 20th century; the growth of film and musical sound in the "classic era" of Hollywood film; the use of music in specific genres such as film noir, science-fiction, epic, and musicals; and the use of popular song in film. Prerequisite: previous completion of MHIS 100, 120, 130, or by permission of the instructor.

MHIS 337 Women Musicians/West Mus Hist
3.000 Credits
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or WGST 275 or PSYC 275 or HUM 275 or SOC 275 or ANTH 275 or WGST 303 or ANTH 303 or SOC 303 or PSYC 303 or HUM 303 or WST 275

Through a historical survey of female musicians from the Middle Ages to the present day, this course takes a critical look at theories of creativity and professionalism as they relate to female musical production. The course deals with women in European "art music" traditions and also in jazz and poplar music. Social and cultural norms dictating appropriate female involvement with music are examined. The historical approach will serve to reveal ways in which terms such as professionalism and virtuosity have continually shifted and changed in reference to female musical performance. The course challenges students to re-think many of the commonly accepted gender-based descriptions of particular genres and elements of music through listening and musical analysis.

MHIS 341 Symphony and Symphonic Poem
3.000 Credits
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or WGST 275 or PSYC 275 or HUM 275 or SOC 275 or ANTH 275 or WGST 303 or ANTH 303 or SOC 303 or PSYC 303 or HUM 303 or WST 275

The symphony and symphonic poem developed from their origins to their more complex later forms. Comparative analysis of similar forms in different periods. (OC).

MHIS 343 Opera
3.000 Credits
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MHIS 311 or MHIS 312 or MHIS 313 or MHIS 331 or MHIS 340 or MHIS 342 or MHIS 390 or MTHY 100 or MTHY 102 or MTHY 301 or MTHY 302 or MTHY 390

A study of selected examples of music theater from the late 16th century to the present, including a comparison of the qualities of sung versus spoken drama, with emphasis on the achievements of such composers as Monteverdi, Mozart, Wagner, and Verdi. (AY).

MHIS 388 W. African Music: Trad.& Glob.
3.000 Credits
Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or AAAS 106 or AAAS 275 or HUM 100 or HUM 270

West African popular music contains a unique mixture of African, Cuban, European and American influences. With the advent of radio and recording, music that was once locally based is now part of a national and international popular music industry. This course offers an overview of modern West African music, both traditional and popular. The course begins with an introduction to traditional West African instruments and musical genres. Next, there is an exploration of the fusion of traditional African styles with European, Cuban and American styles during and after the colonial era. The course culminates with an examination of the contributions of West African musicians to the World Music scene, focusing on issues of representation and Fair Trade.

MHIS 390 Topics in Music History
3.000 Credits
Examination of problems and issues in selected areas of music history. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specified topics differ. (OC).

MHIS 399 Independent Study
1.000 TO 3.000 Credits
Advanced readings or analytical assignments in a particular area of music. Not more than three hours of independent study will be accepted toward the concentration. (F,W).

Music Theory(MTHY)
(not a field of concentration)

COURSE OFFERINGS

MTHY 100 Fundamentals of Music
3.000 Credits
This course presents the fundamentals of Western music theory through practical experience, including music notation, sight-singing, and ear training. Prerequisites: none.

MTHY 101 Music Theory I
3.000 Credits
Prerequisites: MTHY 100

Writing and analysis of melodic lines, alone and in counterpoint, leading to writing and analysis of harmony. Emphasis on being able to hear the sounds symbolized by notation. (F).

MTHY 102 Music Theory II
3.000 Credits
Prerequisites: MTHY 101

Continuation of MTHY 101 including harmonic analysis, layer analysis, and beginning formal analysis. (W).

MTHY 390 Topics in Music Theory
3.000 Credits
Examination of problems and issues in selected areas of music history. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specified topics differ. (OC).
Natural Sciences
(not a field of concentration)

Students without extensive background in science who wish to receive a general introduction to the natural sciences should elect NSCI 120 and/or 121. NSCI 120 and 121 count toward distribution requirements.

Natural Sciences (NSCI)
COURSE OFFERINGS

NSCI 120 Matter, Energy, and Life I
4.000 Credits
Co-requisites: NSCI 120L

A general science course with emphasis on basic principles and their applications. Includes basic life processes, the fundamentals of chemistry and physics, and human systems and genetics. NSCI 120 is complementary to but not a prerequisite for NSCI 121. Students cannot use both NSCI 120 and BIOL 100 to satisfy the natural sciences distribution requirements. Three hours lecture, three hours laboratory. (OC).

NSCI 121 Matter, Energy, and Life II
4.000 Credits
Co-requisites: NSCI 121L

A general science course with emphasis on basic principles and their applications. Includes ecology and evolution, energy and energy technology, geology and astronomy. NSCI 121 is complementary to, but may be taken independently of, NSCI 120. Three hours lecture, three hours laboratory. (F,S).

NSCI 231 Inquiry: Physical Science
3.000 Credits
Prerequisites: EXPS 220

This course develops a strong conceptual understanding of physical science. Prospective K-8 teachers will participate in the same kind of inquiry-based experiences that they will use in their own teaching. Topics will include light and color, matter, and motion. (F,W,S)

NSCI 232 Inquiries: Earth/Planet Science
3.000 Credits
Prerequisites: EXPS 220

This course develops a strong conceptual understanding of earth and planetary science. Prospective K-8 teachers will participate in the same kind of inquiry-based experiences that they will use in their own teaching. Topics will include geology, weather, and astronomy. (F,W,S)

NSCI 233 Inquiry: Life Science
3.000 Credits
Prerequisites: EXPS 220

This course develops a strong conceptual understanding of Life Science. Prospective K-8 teachers will participate in the same kind of inquiry-based experiences that they will use in their own teaching. Topics will include characteristics of life, plants and animals, and ecology. (F,W,S)

NSCI 290 Projects in Natural Sciences
1.000 TO 2.000 Credits

An opportunity for non-science and lower-division science students to carry out independent projects in the natural sciences under the supervision of a faculty member. Projects range from laboratory and field observations to the development of materials and apparatus for use in laboratory exercises and classroom demonstration. In general, one credit hour corresponds to four hours of work per week. Permission of instructor. (F,W).

NSCI 295 Topics in Natural Sciences
1.000 TO 3.000 Credits

An introduction to the themes of the natural sciences reflecting their interactions with one another and society. Topics vary and are announced in the current time schedule. The course may be repeated no more than once under a different topic. One to three hours lecture, seminar, or field study.

NSCI 325 Gender, Science, & Engineering
3.000 Credits

Explores some of the history of women in science and engineering, the current status of women in science and engineering, and feminist theory in research. Topics include cultural influences on women in science and engineering, careers and life balance, and a feminist approach to scientific and engineering teaching and research. Lecture/discussion OR hybrid OR online.

NSCI 331 Inquiry: Physical Science II
3.000 Credits
Prerequisites: NSCI 231 or PHYS 125 or CHEM 134 or CHEM 144

An inquiry-based physical science course suitable for prospective or practicing elementary teachers majoring or minoring in science studies. Students will construct meaningful understanding of physics and chemistry concepts through discussion, hands-on experiences and computer simulations. Specific topics will include the application of the atomic model to the behavior of gases, physical changes, and chemical changes. A learning-cycle pedagogy will be employed that consists of elicitation of initial student ideas, development of new or modified ideas, building student consensus on final ideas, and the application of ideas to new situations.

NSCI 332 Inquiry: Mich Earth Science
3.000 Credits
Must be enrolled in one of the following Degrees:
Bachelor of Science
Bachelor of Arts
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Undergrad Certification only
Sophomore
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: NSCI 232 or GEOL 118

This course develops a strong conceptual understanding of earth science as it applies to the state of Michigan. Prospective K-8 teachers will participate in the same kind of inquiry-based experiences that they will use in their own teaching. Topics will include landforms, water, weather and seasons in Michigan.
NSCI 333  Inquiry: PBL in Life Science  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Coll of Arts, Sciences&Letters  
Must be enrolled in one of the following classes:  
Undergrad Certification only  
Sophomore  
Senior  
Junior  
Post-baccalaureate Cert only  
Prerequisites: NSCI 233 or BIOL 130  
A problem-based learning course suitable for prospective or practicing elementary and middle-school teachers who major or minor in integrated science studies. This course builds on and reinforces content learned at the introductory level by applying life science concepts to complex real-world problems presented in class. Students will work in small groups to identify and research concepts and principles they need to know in order to progress through the real-world life science problems. The case studies used will require the understanding and application of concepts in cell structure and function, genetics, animal and plant physiology, and ecology.

NSCI 390  Topics in Natural Sciences  
1.000 TO 3.000 Credits  
A course in special topics current to natural sciences. Topic and format (seminar, lecture and laboratory) for the course may vary. See current Schedule of Classes. (OC).

NSCI 415  Nutrition and Health  
3.000 Credits  
Prerequisites: ANTH 101  
The influence of nutrition on physical and mental development from conception to adulthood. Topics include: 1) definition and function of the essential nutrients for people, 2) basic principles of human growth and development, 3) the causes and consequences of under- and over-nutrition, 4) feeding practices for infants and children and the development of food habits, 5) nutrients and food problems in the local region and in global perspective. Students cannot receive credit for both NSCI 415 and NSCI 515. (YR).

NSCI 490  Topics in Natural Sciences  
1.000 TO 3.000 Credits  
A course in special topics current to natural sciences. Topic and format (seminar, lecture and laboratory) may vary. See current Schedule of Classes. (OC).

NSCI 497  Natural Sciences Colloquium  
1.000 Credits  
A series of colloquia on selected topics representing frontier areas of current research in the natural sciences. Lectures by guest speakers invited by the department constitute a major component of the course. One hour seminar. (F).

NSCI 498  Independent Study in NSCI  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Coll of Arts, Sciences&Letters  
Must be enrolled in one of the following classes:  
Undergraduate NCFD  
Undergrad Certification only  
Provides an opportunity for students to pursue independent research. Undergraduate NCFD. 
Provides an opportunity for students to pursue independent research. Undergraduate NCFD.

Organizational Change in a Global Environment  
MINOR OR BGS/LIBS AREA OF FOCUS ONLY  
 Requires 15 credits of upper level course work from the following:  
COMM 477; HIST 387, 3695; JASS 403; LIBS 364; PSYC 405, 431, 4305  

Philosophy  
Philosophy explores the fundamental values and assumptions of human activities such as science, the arts, religion, morality, and social and political institutions. It uses the power of human reasoning to address such questions as "What is it to know something?" "What is the best way to live? and "Is belief in God rationally justifiable?" Ultimately, philosophy has as its goal the development of a coherent view of the world and our place in it. Philosophical inquiry helps students acquire and sharpen valuable intellectual and practical skills that can be important in their careers. These skills include effective writing, verbal argumentation, and critical thinking.

The primary value of philosophy lies in its contribution to intellectual insight and to a liberal arts education. The study of philosophy can also serve as a basis for a variety of careers, including medicine, business, and government. It is especially effective as the basis for a pre-law program. Recent developments in cognitive science and in medical and environmental ethics have broadened the range of careers and professions for which the study of philosophy can be recommended.
PREREQUISITES TO THE MAJOR
PHIL 100 Introduction to Philosophy
PHIL 233 Critical Thinking
OR
PHIL 234 Symbolic Logic
PHIL 240 Ethics

MAJOR REQUIREMENTS
PHIL 301 Ancient Philosophy and
PHIL 302 Modern Philosophy

A student may choose either a traditional major in philosophy (Alternative I) or a program that stresses the relationship of philosophy to other areas of study (Alternative II). With regard to both alternatives, students are strongly encouraged to work closely with a faculty adviser to develop a coherent program. Alternative I requires a total of 24 hours in philosophy courses at the 300 or 400 level and six upper-level hours of cognate courses in one or more disciplines outside philosophy. Alternative II requires a total of 18 hours in philosophy courses at the 300 or 400 level and 12 upper-level hours of cognate courses. Satisfactory completion of PHIL 301 Ancient Philosophy and PHIL 302 Modern Philosophy will be counted as part of the 24 hours in philosophy in Alternative I or as part of the 18 hours in philosophy in Alternative II.

Cognates ................................................................. 6 or 12 hrs
As noted above, cognate requirements depend on the student's choosing between Alternative I and Alternative II. Approved list of cognate courses can be obtained at the CASL Advising Office, 1039 CB or on line at the CASL Advising website.

NOTES:
1. A maximum of 44 hrs in PHIL may count in the 120 hours required to graduate.
2. Credit cannot be given for both PHIL 234 and 350.
3. At least 15 hrs of upper level Philosophy required for the major must be elected at UM-Dearborn.

MINOR OR BGS/LIBS AREA OF FOCUS
A minor or area focus consists of 12 hours of upper-level credit in philosophy.

Philosophy (PHIL)

COURSE OFFERINGS

PHIL 100 Introduction to Philosophy
3.000 Credits
An introduction to philosophical thinking through an examination of some timeless human problems such as the existence of God, the problem of freedom, and the attempt to find an ethical foundation for life. (F,W).

PHIL 120 Philosophy and Religion
3.000 Credits
An examination of how basic concerns of philosophy impinge on questions of religious beliefs. Using philosophical texts, the course will explore such questions as the following: Does God exist? Does human life have a purpose? How can we know whether religious claims are true?

PHIL 200 The Human Condition
3.000 Credits
The human condition as seen in selected works of philosophy and literature. Typical issues: the meaning of life, the existence of God, moral responsibility for human actions, and the role of society in promoting or hindering human excellence. (OC).

PHIL 233 Critical Thinking
3.000 Credits
A study of the nature and justification of reasoned arguments, both deductive and inductive, as they occur in natural language. A consideration of topics in language that promote an understanding of ways of reasoning, including definitions and fallacies. (F,W).

PHIL 234 Symbolic Logic
3.000 Credits
This course will examine the central themes in modern symbolic logic including consistency, truth-functionality, sentential first-order predicate logic, and the logic of identity and possibility. These themes and their relation to the wider philosophical context will be discussed. (F,W).

PHIL 240 Ethics
3.000 Credits
A study of ethical concepts and theories. Typical questions: Is the morality of an action based on its results or on the intent of the person acting? Is ethics purely rational? What makes a good person? Ethical principles may be applied to such issues as abortion, capitalism, war, and capital punishment. (F,W).

PHIL 301 Ancient Philosophy
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 443 or PHIL 445 or PHIL 485 or PHIL 490
An examination of the metaphysical, epistemological, ethical, and political theories of the ancient Greek philosophers with particular attention paid to Plato and Aristotle and to the influence of their ideas on Western culture. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 302 Modern Philosophy
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 443 or PHIL 445 or PHIL 485 or PHIL 490
A study of 17th and 18th century European philosophers including such philosophers as Descartes, Spinoza, Hume, and Kant with emphasis on their metaphysical and epistemological theories and how those theories provided a foundation for science and a bedrock for modern thought. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.
PHIL 303 Kant and the 19th Century
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

The development of philosophical thought from Kant through the 19th century. In addition to Kant, figures discussed may include Hegel, Schopenhauer, Marx, Kierkegaard, and Nietzsche. Readings in selected texts. (OC).

PHIL 304 Twentieth-Century Philosophy
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

A study of selected topics, movements, and figures in the philosophy of the twentieth century, including such representative subjects as continental philosophy, contemporary philosophy of mind, and analytic philosophy. Designed to meet the needs of students in literature and the history of ideas as well as philosophy students. Students electing this course must have successfully completed a previous course in philosophy or have permission of the instructor.

PHIL 305 Marxism
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

This course is an introduction to the philosophy of Marxism which emphasizes Marx's theories of human nature, alienation, class struggle, and revolution through readings of classical and contemporary texts. Students electing this course must have successfully completed a previous course in philosophy or have permission of the instructor. (OC).

PHIL 306 Islamic Philosophy
3.000 Credits
Prerequisites: PHIL 100

The course covers the development of Islam, basic Islamic doctrine, and a selection of issues that have been debated within the Islamic philosophical tradition. Students read original texts by Muslim philosophers and think critically about the issues in them and the arguments raised about them. All readings in English; no knowledge of Arabic required.

PHIL 310 Darwinism and Philosophy
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

Darwinism represents a challenge to the traditional view of human life as radically separate from the rest of the natural world. This course will examine the philosophical implications of this world view. It will address questions such as these: Is Darwinism compatible with traditional religion? Does Darwinism imply that human life and the cosmos are without purpose? Can human life be meaningful if it is the result of evolution and natural selection? Does Darwinism require us to change our view of nature? What are the ethical implications of a Darwinian view of life and the universe?

PHIL 312 Environmental Ethics
3.000 Credits
Prerequisites: PHIL 100 or PHIL 233 or PHIL 240 * or ENST 105 or ENST 301

The relationship of human beings to the non-human environment raises pressing moral and political issues. This course will use the theories and concepts of philosophical ethics to explore such questions as human obligations to non-human animals; the preservation of wilderness; balancing economic, aesthetic, and spiritual values; and the problems of pollution, urban sprawl, and ecological justice. Prerequisite or permission of instructor. (YR).

PHIL 315 Ethics of War & Peace
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

A philosophical exploration of ethical issues underlying war and peace. The course will treat such questions as the following: what wars, if any, are just? Are there moral restrictions on the methods that may be used? What individuals are morally responsible for wartime decisions, and to what degree? Discussion of these issues will be used to elucidate larger problems in ethical theory. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 320 The Problem of Human Freedom
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

A critical examination of the idea of freedom: the free will/determinism debate, moral and legal responsibility, punishment, and the relationship between metaphysical and social freedom. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 327 Kierkegaard & Nietzsche
3.000 Credits

This course will explore the philosophical views of Kierkegaard and Nietzsche, examining the interconnections and differences between these two thinkers as well as each one's contributions to philosophy and psychology. The course will focus on both
philosophers' emphasis on the individual and how that emphasis arose as a response to the social, political and economic changes in the 19th century and anticipated and influenced philosophical developments in the 20th century, in particular existentialism.

PHIL 335 Philosophy of Law
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

An examination of some of the important philosophical issues relevant to law and legal theory, including legal punishment, legal responsibility, and the relationship between law and morality. Both classical and contemporary writings will be studied. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 340 Analytic Philosophy
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

An introduction to philosophy as the analysis and evaluation of fundamental concepts and principles occurring in ordinary life and in the sciences. While analytic philosophy in the twentieth century is emphasized, its antecedents in the history of western philosophy will be examined. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor. (OC).

PHIL 350 Symbolic Logic
3.000 Credits

This course will examine the central themes in modern symbolic logic including consistency, truth-functionality, sentential first-order predicate logic, and the logic of identity and possibility. These themes and their relation to the wider philosophical context will be discussed. (F,W).

PHIL 360 Philosophy of Technology
3.000 Credits

A study of both the history of, and current issues in, the philosophy of technology. This course will examine the deeper meaning and implications of our modern technological society. Questions examined include: What is the definition and nature of technology? How did the concept originate in Western thought? What is the relationship between modern industrial technology and the 'mechanistic' worldview? How do Western religious beliefs influence our attitudes about technology? Is technological progress socially determined, or is it culturally independent? In what ways has our technological society been supportive of, or detrimental to, overall human well-being? Students will cover both classic and contemporary readings.

PHIL 365 Philosophy of Religion
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490 or RELS 120

A philosophical examination of basic religious problems, such as the nature and grounds of religious belief, the existence and nature of God, human immortality, the relations of religion and science, and the nature of religious language. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 369 Philosophy of Art
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 370 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490 or PHIL 371

An examination and critique of both traditional and contemporary theories of art as well as an examination of theories of the aesthetic including theories of beauty, taste, and the aesthetic attitude. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor. (OC).

PHIL 370 Philosophy of Mind
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

A study of current philosophical work in the area of consciousness studies examining the nature and function of human consciousness and the problem of reconciling an objective, scientific view of consciousness with our subjective experience of it. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 371 Philosophy in Literature
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 355 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

An exploration of philosophical problems as they are encountered in works of literature. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.
PHIL 375  Problems of Human Knowledge
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 590

A study of issues and problems that arise in considering the nature of knowledge: an examination of traditional theories of knowledge and recent critiques of those theories. Readings of classical and contemporary texts. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 380  Theories of Reality
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

A critical examination of philosophical positions that claim to distinguish between what is real and what is apparent; an evaluation of the basic principles of philosophy and of extra-philosophical disciplines. Readings of classical and contemporary texts. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 384  Feminist Philosophy
3.000 Credits
Prerequisites: PHIL 100 or WST 275 or WGST 275 or WGST 303 or HUM 275 or ANTH 275 or PSYC 275 or SOC 275 or HUM 303 or ANTH 303 or PSYC 303 or SOC 303

Feminists working in philosophy, most notably in the 19th and 20th centuries, have altered the traditional philosophical canon by first, recovering women philosophers who were essentially erased from the history and secondly, by extending and contributing to the standard questions of philosophy. For example, one central question of philosophy: "What can we know with certainty?" has been transformed through a feminist lens and reinterpreted as "What does one's gender, social location, and cultural framework contribute to what one knows?" In this course we will look at the variety of feminist philosophical theories with a focus on epistemology, metaphysics, and ethics.

PHIL 390  Topics in Philosophy
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

Examination of problems and issues in selected areas of philosophy. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. Typical topics: Philosophy of Language, Minds and Machines, Moral Responsibility. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 399  Independent Studies
1.000 TO 3.000 Credits
Readings or analytical assignments in philosophy in accordance with the needs and interests of those enrolled and agreed upon by the student and instructor. (F,W).

PHIL 415  Existentialism and Its Sources
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

An exploration of the literary sources of existentialism and a critical study of selected philosophical texts. Particular themes - death, subjectivity, alienation, commitment, and freedom - will be considered in an attempt to formulate an existential conception of the human condition. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 441  Social and Political Phil
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 411 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490

An analysis of some fundamental problems of political and social philosophy, with special attention to the way in which theory may function as a guide to specific policies. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 442  Medical Ethics
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 411 or PHIL 442 or PHIL 445 or PHIL 490

An examination of moral issues in medicine. Among the problems to be considered are truth-telling and paternalism in the doctor-patient relationship, psychosurgery and behavior control, death and euthanasia, the allocation of scarce resources, and genetic counseling and control. Specific attention will be given to ethical theories and to philosophical concepts such as rights, autonomy, and justice. Students cannot receive credit for both PHIL 442 and PHIL 542. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.
PHIL 445  Contemporary Ethical Issues
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 490

An intensive study of a topic in recent ethical theory. Topics will vary with each offering. Among the topics: ethics and law, utilitarianism, virtue theory, theories of justice, morality and emotion, ethics and partiality. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 485  Philosophy of Science
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 335 or PHIL 340 or PHIL 350 or PHIL 365 or PHIL 369 or PHIL 370 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 490

A critical study of the foundations of the sciences, natural and social, with emphasis on the following topics: the nature of scientific method, theories and explanation, probability and determinism, the unity of the sciences. Students electing this course must have successfully completed a previous course in philosophy or have permission of instructor.

PHIL 490  Studies in Philosophy
1.000 TO 4.000 Credits

Intensive study of a figure, movement, or issue in philosophy. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. Typical topics: Plato's dialogues, philosophical foundations of mathematics, minds and machines. (OC).

PHIL 496  Independent Studies
1.000 TO 3.000 Credits

Topics in philosophy not ordinarily included in other courses in philosophy. Selected in accordance with needs and interests of those enrolled.

PHIL 497  Independent Studies
1.000 TO 3.000 Credits

Topics in philosophy not ordinarily included in other courses in philosophy, selected in accordance with the needs and interests of those enrolled.

PHIL 498  Independent Studies
1.000 TO 4.000 Credits

Topics in philosophy not ordinarily included in other courses in philosophy, selected in accordance with the needs and interests of those enrolled. Credit hours will vary. (F,W).

PHIL 499  Independent Studies
1.000 TO 4.000 Credits

Topics in philosophy not ordinarily included in other courses in philosophy, selected in accordance with the needs and interests of those enrolled. Credit hours will vary. (F,W).

Physics

Physics is the study of the most fundamental properties of matter and energy. The physics program has been designed with the recognition that a student might choose to major in physics for a variety of reasons. In addition to meeting the needs of those planning to continue their physics education in graduate school, the program serves those students wanting to pursue technical careers immediately after graduation, those seeking to enter medical, dental or other professional schools, and those interested in earning certification as high school teachers. After completing a core curriculum in physics and mathematics and an introduction to the life and other physical sciences, students have the opportunity to gain first-hand experience in basic and applied physics research by participating in faculty research projects both on and off campus. Similar experiences may be arranged in hospital, industrial, or government research facilities in the Detroit metropolitan area. The physics faculty have concentrated their efforts in quantum optics, statistical and condensed matter physics, biophysics, astrophysics, and the history and philosophy of physics. Physics majors have worked on problems in these specialty areas, and also on projects in the interdisciplinary application of physics in medicine and in the environment. Students wishing to emphasize the applied side of physics may do so by replacing elective courses in physics with courses offered by the College of Engineering and Computer Science.

PREREQUISITES TO THE MAJOR

A solid background in mathematics is essential to success in any scientific discipline. Incoming students who intend a concentration in physics should have completed at least three years of high school mathematics. First-year students should plan to enroll in MATH 105, 115 or 116 based on the results of their math placement tests. PHYS 150 and 151 are prerequisites to all other physics courses. Students intending on majoring in physics should complete these courses as soon as possible.

CHEM 134  General Chemistry I ......................... 4 hrs
OR
CHEM 144  General Chemistry I ......................... 4 hrs

PHYS 150  General Physics I

PHYS 151  General Physics II............................ 8 hrs
MATH 115, 116 and 215
Calculus .................................................. 12 hrs

MATH 216  Differential Equations ......................... 3 hrs

MATH 217  Matrix Algebra

OR
MATH 227  Linear Algebra ................................ 2-3 hrs

Two other science courses chosen from ..................... 8 hrs
CHEM 136 OR CHEM 146,
BIOL 130 OR BIOL 140,
GEOL 118

MAJOR REQUIREMENTS .................................... 31 hrs

Required courses ......................................... 22 hrs
PHYS 305  Contemporary Physics ....................... 3 hrs
PHYS 360  Instrumentation for Scientists ............. 4 hrs
PHYS 401  Mechanics ...................................... 3 hrs
PHYS 403  Electricity and Magnetism ................. 3 hrs
PHYS 406  Thermal and Statistical Physics .......... 3 hrs
PHYS 453  Quantum Mechanics ......................... 3 hrs
PHYS 460  Advanced Physics Laboratory .......... 3 hrs
Six additional credit hours of lecture courses in physics, chosen from

PHYS 320 Environmental Physics  
PHYS 370 Introduction to Mathematical Physics  
PHYS 390 Current Topics in Physics  
PHYS 405 Optics  
PHYS 416 Biological Physics  
PHYS 421 Astrophysics  
PHYS 457 Atomic and Nuclear Physics  
PHYS 463 Solid State Physics

Three additional credit hours of laboratory courses, selected from

PHYS 460 Advanced Physics Laboratory ............... 3 hrs  
PHYS 495 Off-Campus Research ........................ 1-3 hrs  
PHYS 499 Laboratory Studies in Physics ............ 1-3 hrs

Cognates ...................................................................... 6 hrs

Students must complete at least six additional credit hours in upper-level cognate courses selected from ASTR, BIOL, BCHM, CHEM, ESCI, ENST, GEOI, MICR, NSCI, MATH (excluding 385, 386, 387), STAT, BENG, CIS, ECE, ENGR, IMSE, ME or other subject areas intimately related to physics and approved by the physics major advisor by petition. Courses leading to knowledge of computer programming in languages such as Fortran, C++, or JAVA are particularly recommended.

NOTES:
1. A maximum of 44 hrs. of PHYS may count in the 120 hours required to graduate.
2. At least 12 of the 31 upper level hours in PHYS must be elected at UM-Dearborn.
3. A maximum of 6 hrs. of independent study/research in any Dept. of Natural Sciences discipline may count towards the 120 hours required to graduate.

MINOR OR AREA OF FOCUS

A minor or area of focus consists of 12 credit hours of upper-level courses in physics.

Physics (PHYS) COURSE OFFERINGS

PHYS 100 Perspectives in Physics  
3.000 Credits

An introductory look at the concepts and methods of physics as well as the role of physics in society today. Examines some of the problems facing physicists and the ways they go about tackling them. Problem solving includes the use of mathematics in physical situations. The course is designed for non-concentrators interested in physics. Three hours lecture. (S).

PHYS 125 Introductory Physics I  
4.000 Credits  
Prerequisites: MATH 105 * or MPLS 113  
Co-requisites: PHYS 125L

Part I of a non-calculus, introductory, survey of physics. The concepts of physics are presented with an emphasis on the methods of solving physical problems. Topics are drawn from mechanics, waves, and thermal physics. This course and PHYS 126 are normally taken by students in biological science, preprofessional and computer science programs. Three hours lecture, one hour discussion, three hours laboratory. (F).

PHYS 126 Introductory Physics II  
4.000 Credits  
Prerequisites: PHYS 125 or PHYS 150  
Co-requisites: PHYS 126L

A continuation of PHYS 125. Topics are drawn from electricity and magnetism, optics, and modern physics. Three hours lecture, one hour discussion, three hours laboratory. (W).

PHYS 150 General Physics I  
4.000 Credits  
Prerequisites: MATH 115 * or MPLS 116  
Co-requisites: PHYS 150L

Part I of an integrated, two-semester, calculus-based treatment of physics, with emphasis on the solution of physical problems through the understanding of a few basic concepts. Topics are drawn from mechanics. This course and PHYS 151 are normally taken by concentrators in physics, chemistry, biochemistry, mathematics, and engineering. Three hours lecture, one hour discussion, three hours laboratory. (F,W).

PHYS 151 General Physics II  
4.000 Credits  
Prerequisites: PHYS 150 and (MATH 116 * or MPLS 215)  
Co-requisites: PHYS 151L

A continuation of PHYS 150. Topics are drawn from electricity and magnetism, and optics. Three hours lecture, one hour discussion, three hours laboratory. (F,W).

PHYS 305 Contemporary Physics  
3.000 Credits  
Prerequisites: (PHYS 126 or PHYS 151) and (MATH 116 or MPLS 215)

An introduction to contemporary topics in physics of interest to science, mathematics and engineering students. Topics include relativity, and quantum mechanics and their applications to atoms, molecules, nuclei, solid state phenomena, and cosmology. Three hours lecture. (W).

PHYS 320 Environmental Physics  
3.000 Credits  
Prerequisites: PHYS 126 or PHYS 151

A survey of the applications of physical principles to the environment, and to the conversion, transfer, and use of energy. Problems of transportation, meteorology, and thermal pollution are included. Three hours lecture. (OC).

PHYS 360 Instrumentation for Scientists  
4.000 Credits  
Prerequisites: PHYS 126 or PHYS 151

An introduction to the principles of electronic instrumentation used in scientific research. Methods of converting physical measurements into electronic signals by means of electrical circuits, transistors, digital and analog integrated circuits will be discussed. Digital computers as general purpose laboratory instruments will be explored. Students will complete individual projects. Three hours lecture, four hours laboratory. (F).
PHYS 370  Intro to Mathematical Physics
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 151

As introduction to those mathematical methods that are widely used in understanding the physical phenomena exhibited by Nature. Topics include vector analysis, linear algebra, complex variables, Fourier analysis, and differential equations. Emphasis is on the application of these techniques to physical problems of interest to students in mathematics, engineering, and the physical sciences. Three hours lecture. (AY).

PHYS 390  Current Topics in Physics
3.000 Credits
Prerequisites: PHYS 305 *

A lecture course in a topic of current interest in physics. Topics vary and are announced in the current Schedule of Classes. Three hours lecture. (OC).

PHYS 401  Mechanics
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 151

A study of the classical physics of the motions of single particles, systems of particles, and rigid bodies. Topics include central force laws and planetary motion, collisions and scattering, rigid body motion, oscillations, Lagrange's equations, and Hamilton's principle. Three hours lecture. (F).

PHYS 403  Electricity and Magnetism
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 151

The study of electrostatics, magnetostatics and electrodynamics using Maxwell's equations. Of interest to engineers and physical scientists, the course focuses on the logical development of Maxwell's equations from experimental laws and on their application to electromagnetic phenomena. Three hours lecture. (W).

PHYS 405  Optics
3.000 Credits
Prerequisites: (MATH 205 or MPLS 215 or MATH 215) and PHYS 151

An introduction to wave and ray optics for students in engineering, mathematics, and the physical sciences. Topics of discussion include reflection and refraction at dielectric surfaces, lenses and mirrors, fiber optics, polarization, interference, and Fraunhofer and Fresnel diffraction. Additional material on coherence, Fourier optics and spatial filtering, and holography is presented as dictated by students' needs and interests, and as time permits. Three hours lecture. (AY).

PHYS 406  Thermal and Statistical Physics
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 151

A study of thermodynamic phenomena using the methods of statistical mechanics. Designed for engineering students and concentrators in mathematics and the physical sciences; extensive application is made to physical, chemical and biological systems and phenomena, including solids, liquids, gases, paramagnets, thermal radiation, DNA, hemoglobin, semiconductors, heat engines, chemical reactions, and phase transitions. Three hours lecture. (F).

PHYS 416  Biological Physics
3.000 Credits
Prerequisites: MATH 205 or (MATH 215 and PHYS 151)

A course based on the methodology of physics with particular emphasis on the applications of theoretical models and experimental methods to biological objects and systems. Topics may include bioelectricity, membranes, polymers, and physical chemistry of macromolecules. Three hours lecture. (OC).

PHYS 421  Astrophysics
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 305

A calculus-based introduction to several major areas of modern astrophysics for students concentrating in the physical sciences, mathematics, and engineering. Topics to be covered include observable properties of stars and star systems, stellar structure and evolution, binary systems and galactic x-ray sources, galaxies and quasars, and cosmology. Three hours lecture. (AY).

PHYS 453  Quantum Mechanics
3.000 Credits
Prerequisites: PHYS 305 and MATH 216

Concepts of quantum mechanics with applications of the Schroedinger wave equation to the simpler atoms, molecules, and nuclei. Topics of current interest to physicists, chemists, and biologists are discussed. Three hours lecture. (F).

PHYS 457  Atomic and Nuclear Physics
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 305

Topics in modern atomic physics such as optical and radio-frequency spectroscopy and scattering of atoms and electrons are considered. An introduction to nuclear physics, including nuclear interactions and structure, radioactive decay, fission, and fusion. Three hours lecture. (AY).

PHYS 460  Advanced Physics Laboratory
3.000 Credits
Prerequisites: PHYS 305 * and PHYS 360

Experiments in both classical and modern physics using contemporary techniques. Commercial apparatus is used in several experiments. Advanced students are encouraged to initiate and conduct their own experiments. Instruction in the planning of experiments and the presentation of oral and written reports is included. One hour recitation, six hours laboratory. Course may be repeated for credit. (W).

PHYS 463  Solid State Physics
3.000 Credits
Prerequisites: (MATH 205 or MATH 215 or MPLS 215) and PHYS 305

A study of the structure and properties of the solid state of matter with emphasis on crystalline solids, crystal structures, lattice dynamics, electrons in metals and semiconductors, and dielectric and magnetic properties of solids. Three hours lecture. (AY).

PHYS 470  Topics in Physics
1.000 TO 3.000 Credits

A lecture course in a topic of current interest in physics. Topics vary and are announced in the current Schedule of Classes. One to three hours lecture. (OC).
PHYS 495  Off-Campus Research
1.000 TO 3.000 Credits

Participation in ongoing experimental research at an off-campus laboratory. Assignments made by cooperative or internship agreement between the research laboratory, the student, and the physics concentration advisor. Course may be repeated for credit. Four to twelve hours laboratory. Permission of concentration advisor. (F,W,S).

PHYS 497  Seminar in Physics
1.000 TO 3.000 Credits

Current topics from various areas in pure and applied physics are reported upon by students, faculty, and guest lecturers. Topics presented will vary from year to year. Course may be repeated for credit. One to three hours seminar. (W).

PHYS 498  Directed Studies in Physics
1.000 TO 3.000 Credits

Special topics in physics chosen by agreement between student and instructor. Course may be repeated for credit. Permission of instructor. (F,W,S).

PHYS 499  Laboratory Studies in Physics
1.000 TO 3.000 Credits

Experimental studies in physics selected by agreement between student and instructor. Four to twelve hours laboratory. Course may be repeated for credit. Permission of instructor. (F,W,S).

Political Science

Political Science, broadly defined, is the study of political power and the ends to which that power is used. It is “political” in the sense that it concentrates on the institutions and processes of political systems that exercise power in an authoritative way. It is “scientific” in the sense that there is a systematic body of knowledge about political behavior which can be studied empirically, normatively, and experientially. The six officially-defined areas of specialty within political science are American Politics, Political Theory, Public Policy, Comparative Politics, International Relations, and Research Methodology.

PREREQUISITES TO THE MAJOR

Students majoring in political science must take two prerequisites:

- POL 101  Introduction to American Government*
- POL 201  Introduction to Comparative Government

*POL 101 is highly recommended for all upper-level courses. Junior or senior standing is a prerequisite for most 400/4000-level courses. Students are advised to complete POL 101 and 201 within their first four terms and POL 300 during their fourth or fifth term.

MAJOR REQUIREMENTS

Students must complete 24 hours of upper-level political science courses. Students are advised to complete required classes as soon as possible to prevent schedule conflicts. Those who ignore this advice may have difficulties completing their major requirements as they planned.

Summary of requirements:

Field Requirements: one course from each field* .......... 18 hrs

American Politics...................................................... 3 hrs
- POL 311, 312, 313, 315, 316, , 322, 323, 326, 327, 328, 329, 334, 340, 362, 413, 414, 415, 416, 417, 418, 489, 4165
Political Theory....................................................... 3 hrs
Public Policy .......................................................... 3 hrs
- POL 325, 333, 360, 363, 364, 365, 466, 481, 490
Comparative Politics ................................................. 3 hrs
- POL 341, 350, 355, 370, 385, 386, , 450
International Relations ............................................. 3 hrs
- POL 361, 371, 375, 451, 471, 472, 473
Methodology ....................................................... 3 hrs
- POL 300*

** POL 301 does NOT fulfill the POL 300 requirement.

Additional electives to reach a total of 24 hrs

Any political science course at the 300 level or above may be used to complete the required total of 24 hours of upper-level coursework beyond POL 300 and the required field courses. Students should select specific courses in consultation with the program advisor.

Cognates...................................................................... 6 hrs

Students must complete six hours of cognate courses at the 300 level or above in ANTH, CRJ, ECON, HIST, PHIL, PSYC, SOC, URST, (excluding CRJ 478, 494, 495, 496, 497; ECON 498; HIST 485; PSYC 485).

NOTES:

1. At least 15 of the 24 upper level hours in the Political Science major must be electives at UM-Dearborn.
2. A maximum of 6 hours of POL 494, 495, 496, 497 internship credit may count in the 24 hours required for the major.

MINOR OR BGS/LIBS AREA OF FOCUS

A minor or area of focus consists of 12 hours of upper-level credit in political science.

EVENING PROGRAM OFFERINGS

The political science faculty have a commitment to a comprehensive evening program. In terms of required courses, the goal of the discipline is to offer POL 101 each semester and POL 201 and POL 300 at least once every year. If POL 201 or POL 300 is not offered during a given two-year period, a full-time evening student is allowed to petition the discipline for permission to substitute other classes. Evening students should watch for infrequently offered prerequisite classes and take them when they are available.

Political Science (POL) COURSE OFFERINGS

POL 101  Intro to American Government
3.000 Credits

An introduction to the national institutions and political processes of American government. Potential topics include: the Constitution, the founding, federalism, public opinion, interest groups, political parties, political institutions, civil rights, civil liberties, or public policy. (F, W).
POL 201 Intro Comparative Government  
3.00 TO 4.000 Credits

An introduction to the world's major forms of government: democracies and non-democracies, their institutions, and the processes that affect their stability and the transitions between them. (F, W).

POL 205 Intro to Public Administration  
3.000 Credits

Introductory study of the administrative phase of public policy development. Such aspects of administration as personnel and fiscal management are considered and related to issue of accountability, public responsibility, and notions of public interest. (F,W).

POL 250 Intro to Political Theory  
3.000 Credits

This course examines the role of political theory as a tool for the critical analysis of political reality. It analyzes several dominant political conceptions such as justice, equality, democracy, civility, and authority. (YR).

POL 260 The Arms Race and War  
3.000 Credits

An examination of the causes and consequences of the contemporary arms race. Special attention is given to nuclear weapons, the risk of war, and the prospect for arms control and disarmament. (YR).

POL 300 Political Analysis  
3.000 Credits

Introduction to research design, data collection and analysis, sampling, and statistics for social scientists. (F,W).

POL 301 Political Analysis  
3.000 Credits

This course is the online version of POL 300. It covers introduction to research design, data collection and analysis, sampling, and statistics for social sciences. Political Science concentrators may not register for this class unless a petition is approved in advance by the Political Science Discipline. (F, W, S).

POL 302 The Theory of the Law  
3.000 Credits

A comprehensive introduction to the theoretical foundations and the political functions of law, with special emphasis on the different moral justifications of law; the relation between law and justice; the relation between law and freedom; due process and fairness in any legal system. This course is designed to have special relevance for those considering law as a career. (OC).

POL 303 Justice  
3.000 Credits

An analysis of theories of justice. The relation between morality and political power is considered. (AY).

POL 304 American Political Thought  
3.000 Credits

The principal American contributions to political theory. (OC).

POL 305 Race/Justice/Freedom in Amer  
3.000 Credits

This course examines the social and political thought of selected African American political thinkers. Its focus will be to assess the origins, development and implications of their ideas in the context of the changing dynamics of racial politics in America and the world. (AY).

POL 306 Political Ideologies  
3.000 Credits

An examination of significant modern ideologies, especially liberalism, conservatism, and Marxism. (YR).

POL 307 Marxist Thought  
3.000 Credits

The theories of selected communist thinkers and the implications that these ideas have for the contemporary world. (OC).

POL 308 Moral and Political Dilemmas  
2.000 TO 3.000 Credits

May not be enrolled in one of the following Classes: Sophomore Freshman

The course focuses on the tensions and relations between personal morality and political action by examining the moral aspect of contemporary policy issues such as the right to life, environmental policy, and discrimination. (YR).

POL 309 Ancient Political Theory  
3.000 Credits

An examination of seminal ancient and classical thinkers and texts such as Socrates, Plato, Aristotle, and the Bible on significant themes pertaining to justice, government, religion, and philosophy. (YR).

POL 310 Modern Political Theory  
3.000 Credits

The course studies the origins of modern political theory and practice, and the development of "modern" democratic liberalism. (YR).

POL 311 Int Group and Pol Process  
3.000 Credits

An examination of the structure, techniques, and internal politics of interest groups, their role in policy making and relationship with political parties, legislative and executive bodies, and administrative agencies. (AY).

POL 312 Legislative Process  
3.000 Credits

An analysis of legislative systems with emphasis on the changing realities of congressional and state power and policy making. (YR).

POL 313 American State Government  
3.000 Credits

A comparative analysis of politics, political processes, and governmental institutions in American state and local governments. (YR).
Fundamental and recurring issues in American political thought, as they appear in the most influential and representative works on public affairs since the end of the Civil War. Topics may include Social Darwinism and its progressive critics, "revisionist" critiques of the Constitution, political aspects of philosophic pragmatism, the "revolt against formalism" in law, political doctrines of Progressivism and the New Deal, mid-century changes in progressive liberalism, the revival of classical liberalism and its "fusion" with traditional conservatism, political-philosophical aspects of environmentalism, the political thought of the civil rights movement and its critics, feminism and its diversification, and the capacities of American political culture and institutions to conduct a sustained opposition to terrorism. The course concentrates on analyzing extended works of reasoning in books, essays, judicial opinions and other public documents. POL 304, American Political Thought, is recommended as a forerunner to this course.

**POL 314 Issues in Amer Pol Thought**  
3.000 Credits  
Must be enrolled in one of the following Levels: Undergraduate

This course examines the expansion of presidential powers, focusing on the constitutional and political development in the president's role as chief executive, legislative leader, and administrative head of state. Topics include: separation of powers, presidential selection, impeachment, relations with Congress and bureaucracy, emergency powers, presidential character, and leadership. (YR).

**POL 315 The American Presidency**  
3.000 Credits


**POL 316 The American Judicial Process**  
3.000 Credits

A survey of landmark Supreme Court decisions in the field of criminal law and related issues of criminal justice. State court decisions when applicable may also be included. (AY).

**POL 318 Criminal Law**  
3.000 Credits

An analysis of the political process in terms of the attitudes, values, and behavior of human beings. (OC).

**POL 320 Politics and Human Nature**  
3.000 Credits

A survey of landmark Supreme Court decisions in the field of criminal law and related issues of criminal justice. State court decisions when applicable may also be included. (AY).

This course explores government, politics, and public policy in Michigan. It examines the major governmental and nongovernmental institutions involved in state level policy making, the processes used by these institutions to influence public policy, and the policies that emerge through their interaction. (YR).

**POL 321 Urban Politics**  
3.000 Credits

A survey of the political process in urban areas giving special attention to the changing role of cities in American politics. (YR).

**POL 322 Mich Gov, Pol, & Pub Policy**  
3.000 Credits

An examination of policy making about problems affecting the environment, at a global, national, and local scale. (AY).

**POL 323 Environmental Politics**  
3.000 Credits

An analysis of the nature and formation of public opinion, the techniques for its measurement, and its role in the political system. (AY).

**POL 324 Organizing and Leadership**  
3.000 Credits

The focus of this course is citizen participation in administrative behavior. Attention is paid to the perspectives of both citizens and bureaucrats. The course uses broad concepts of political participation and organization behavior. (YR).

**POL 325 Pol Parties and Elections**  
3.000 Credits

The purpose of this course is to introduce students to the theory and practice of local democratic action. The course draws on the history, practices, and lessons of the American community organizing tradition and the civil rights movement and relates those past experiences to current issues. In collaboration with local community partners, students learn about effective methods of civic engagement and leadership, as currently practiced in metropolitan Detroit. (YR).

**POL 326 Federalism**  
3.000 Credits

Federalism is considered from both legal and operational perspectives. Students examine traditional views of Federalism as well as empirical and technical studies about intergovernmental relations at national, state, and metropolitan levels. (YR).
POL 341  Canadian Politics  
3.000 Credits  
A survey of Canadian politics and government. It provides an understanding of the Canadian political tradition and some of the concerns of contemporary Canada; includes a focus on the cultural and socioeconomic bases of the political system, the development of constitutional structures, the scope of public policy and the dynamics of policy process. (OC).

POL 350  Pol of the Developing Areas  
3.000 Credits  
A comparative study of political development, political and governmental structures, and conflict patterns, especially of an ethnic nature. (AY)

POL 355  Religion and Politics  
3.000 Credits  
The primary focus of the course is on political movements or systems that take a religious form or have a religious base or use a religiously-rooted ideology. Possible themes or cases covered include the Catholic Church as a political system, Evangelical politics in America, religious uprisings, and Islamic political movements. (AY).

POL 360  American Policy Process  
3.000 Credits  
An analysis of political decision-making processes on a range of issues with an emphasis on how various political actors attempt to influence the process to their own advantage. (YR).

POL 361  American Foreign Policy  
3.000 Credits  
Survey of American foreign policy in various regions of the world. Instances of policy making, such as the Cuban missile crisis, are explored in detail. (YR).

POL 362  Women, Politics, and the Law  
3.000 Credits  
An examination of the political behavior of women in American politics. Included is an analysis of the legal and legislative demands of American women. (AY).

POL 363  Cr Just Policy and Admin  
3.000 Credits  
The structure and processes of criminal justice administration in America, including analysis of current issues in police behavior, courts, and corrections. (AY).

POL 364  Health Pol and Administration  
3.000 Credits  
Structure and processes of health administration in America, including analysis of current issues in health policy. (AY).

POL 365  Energy Policy  
3.000 Credits  
The course reviews the important elements in energy policy and a brief history of that development. It also considers what factors have been important in those developments. Finally, there is discussion of the potential for policy developments at all levels of government. (OC).

POL 370  Communist & Post-Communist Sys  
3.000 Credits  
China and Russia are the focal points of this course. Among questions explored are: How are Russia and China ruled? Are their forms of government and their economic systems "moderating" and becoming more like those of the United States? How successful have these governments been in meeting the needs of the people? (OC).

POL 371  Problems in Intl Politics  
3.000 Credits  
Present-day problems in world politics, with particular emphasis on the great powers and on areas and events of political conflict in the contemporary world. (YR).

POL 375  Great Pwrs Comp and Conflict  
3.000 Credits  
This course focuses on the foreign policies of major international powers, such as China, Russia, and the Western European democracies. Attention is also paid to the causes of the rise and decline of major powers. (YR).

POL 385  Middle East Politics  
3.000 Credits  
The course focuses on the Israeli-Palestine conflict in its domestic, regional, and world-wide dimensions. (AY).

POL 390  Topics in Political Science  
3.000 Credits  
Examination of problems and issues in selected areas of political science. Title as listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

POL 398  Independent Studies  
1.000 TO 3.000 Credits  
Readings or analytical assignments in Political Science in accordance with the needs and interests of those enrolled and agreed upon by the student and instructor.

POL 399  Independent Study  
1.000 Credits  
Readings or analytical assignments in political sciences in accordance with the interests and needs of students enrolled and agreed upon by the instructor and student. Written permission of instructor required.

POL 413  American Constitutional Law  
3.000 Credits  
Must be enrolled in one of the following classes: Senior Junior  
A major theme of this course is the development of the Constitution as shaped by the Supreme Court, Congress, and the president. The course examines the constitutional interpretation of government authority which includes such topics as judicial review, appointments, executive privilege, war power, federalism, commerce power, taxing and spending power, and substantive due process. (AY).
POL 414 Civil Rights and Liberties  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:  
Senior  
Junior  
An analysis of the Bill of Rights and the 14th Amendment, with particular emphasis upon recent landmark or controversial Supreme Court decisions dealing with freedom of speech and religion, rights of criminal defendants; cruel and unusual punishment, right to privacy; civil rights and equal protection clause; and apportionment. (YR).

POL 415 Problems in Constitutional Law  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Selected areas of constitutional law of current interest. Topics to be announced. (AY).

POL 416 Criminal Law  
3.000 Credits  
A survey of the major judicial, executive, and legislative decisions in the field of criminal law. (AY).

POL 417 Constitution & National Security  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
This course focuses on the issue of national security and how the federal government has used power to protect its citizens. It analyzes relevant national security issues in order to understand how government action is constrained by the Constitution and social norms. The course examines the historical development of national security in the United States including habeas corpus, wiretapping, military tribunals, state secrets, and extraordinary rendition. Particular close attention is paid to the modern development of national security. The emphasis in reading will be on cases, executive orders, congressional hearings, and statutes. For graduate credit elect POL 517.

POL 418 Supreme Court and Religion  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: POL 101  
A study of the major landmark decisions of the Supreme Court interpreting First Amendment guarantees of religious liberty. The course emphasizes case law defining the meaning of the Establishment Clause and the Free Exercise Clause and their significance for religious liberty in America.

POL 445 Environmental Law  
3.000 Credits  
A survey of common law theories and analysis of environmental statutes from a functional perspective. The course also includes environmental law aspects of constitutional law, administrative law and criminal law, as well as the public trust doctrine and public lands. Student cannot receive credit for both ENST 350 and ENST/POL 445.

POL 450 Revolution  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
A consideration of violent political change and the conditions which promote it. The course covers both revolutionary theories and empirical research. Specific revolutions are considered. (YR).

POL 451 Peace and War  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
An examination of the causes of war and the means of securing peace. (YR).

POL 460 Science, Tech & Pub Policy  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Graduate  
This course explores the intersection of science, technology, and public policy. Scientific knowledge and technological innovations are exceptionally powerful resources for policy-makers and for societies; they also pose great challenges and risks. This course will look at how science and technology affect the pursuit of policy goals in areas such as public health, environmental sustainability, economic growth, and national security. Students will not receive credit for more than one of POL 460, POL 560, and PPOL 560.

POL 466 Politics & Policies Soc Welfare  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Freshman  
The course examines the relationship between politics and public policy as related to the provision of social welfare programs in the United States.

POL 471 American Foreign Policy I  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
American foreign policy in Western Europe, Russia, and Latin America. (OC).

POL 472 American Foreign Policy II  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
American foreign policy in the non-western world. (OC).

POL 473 International Security Affairs  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
International Security is the branch of world politics concerned with the threats, primarily military in nature, to the peace and security of the nation, states, and the international community. (AY).
POL 481  **Terrorism & US Natl Security**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: POL 101 or CRJ 468

The United States responded to the events of September 11, 2001 with a series of unprecedented action under the umbrella of homeland security and the “War on Terror.” This course examines American National security policy by asking a few key questions: What is terrorism and how does it threaten the United States? How has the United States responded to the threat of terrorism over time? What have the consequences of US policy been to date? Finally, how would we balance a desire for security with our desire for civil liberties and ethical action?

POL 487  **Comparative Enviro Policy**  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior

This course explores environmental policy as a result of political processes involving diverse participants and entailing movement through several stages - from defining an issue as an environmental problem to placing it on political agenda and then receiving a response at domestic governmental or international levels. This course analyzes environmental issues from a cross-cultural and comparative perspective, with a particular attention given to political institutions, political change, levels of development, political culture, public participation, and international commitments that shape the nature and dynamics of environmental policies and policy in different countries. Course POL 101 is recommended before taking this course.

POL 489  **Seminar in Urban Politics**  
3.000 Credits

Selected topics in urban politics.

POL 490  **Sem in Public Administration**  
2.000 TO 3.000 Credits

Selected topics in public administration.

POL 491  **Seminar in Political Science**  
3.000 Credits

Selected topics in political science. Title as listed in Schedule of Classes changes according to content. Course may be repeated for credit when topics differ. (AY).

POL 492  **Seminar in Political Analysis**  
3.000 Credits

An advanced in-depth look at the problems and techniques of empirical research. Gives special attention to research design, data collections, measurement, and validity. Statistics for social scientists will also be covered. (OC).

POL 494  **Internship Seminar**  
3.000 Credits

This is the academic part of the internship. Students meet with other interns once a week to analyze political dynamics within their placements. Students are required to keep journals, prepare papers and reports, and do other written work. Anyone taking POL 495 or 497 is required to take POL 494. It may not be taken by itself. Repeatable if topic differs. Only six hours of internship credit is allowable toward concentration requirement.

POL 495  **Public Affairs Internship**  
3.000 TO 6.000 Credits

Field study placements in national, state, county, local government or private agencies. Primarily for junior or senior political science concentrators or other qualified applicants. Maximum of 20 students selected each term. Students must also register for POL 494. Only six hours of internship credit is allowed toward concentration requirement.

POL 496  **Canada Internship**  
3.000 OR 6.000 Credits

Field study placements in Canada at national, provincial, or local levels, or in private agencies. Course is offered only in spring semester. Primarily for junior or senior political science concentrators, or other qualified applicants. Students must also register for POL 494. Only six hours of internship credit is allowed toward concentration requirement.

POL 497  **Washington, D.C. Internship**  
3.000 TO 6.000 Credits

Field placements in Washington, D.C. Course is offered only in summer semester. Primarily for junior or senior political science concentrators or other qualified applicants. Only six hours of internship credit is allowed toward concentration requirement.

POL 498  **Directed Studies**  
1.000 TO 6.000 Credits

Directed individual study of any subject agreed upon by the student and the instructor. May not duplicate a formal course offering. (OC).

POL 499  **Directed Studies**  
1.000 TO 6.000 Credits

Directed individual study of any subjects agreed upon by the student and the advising instructor, which shall not duplicate a formal course offering.

**Psychology**

As the science of human experience and behavior, psychology has a vast range. At one end, it borders on natural sciences such as biology and physiology, and at the other, it shares interests with social science disciplines such as anthropology and sociology. A student might choose to focus on a particular subfield of psychology by taking elective courses from within one of these areas: social, personality, clinical, developmental, environmental, industrial/ organizational, cognitive, experimental and physiological. The curriculum is designed to accommodate non-concentrators who seek personal enrichment, concentrators who will go on to use psychology in a human services career or in a related field, and concentrators intending to pursue an advanced degree in psychology. Honors and internship programs provide opportunity for students to develop research skills and to gain practical experience in an applied setting.
PREREQUISITES TO THE MAJOR

Students desiring to concentrate in psychology are required to take the following or their equivalents.

PSYC 170 Introduction to Psychology as a Natural Science
AND
PSYC 171 Introduction to Psychology as a Social Science

(Effective Fall 2014, PSYC 101 will replace PSYC 170 and 171.)

MAJOR REQUIREMENTS

Students must complete at least 27 hours in psychology at the 300 level or above. For those transferring from a community college this requirement will ordinarily mean that the 27 hours will be completed during the junior and senior years.

Students are required to take one course in each of the following areas.

Methods
PSYC 415, 425, 435, 445, or 465

Biological Psychology
PSYC 370, 372, 455, or 4725

Clinical/personality
PSYC 440, 441, 442, or 450

Developmental Psychology
PSYC 300, 301, 302, 315, 407, 412, 418, or 432

Social/Organizational Psychology
PSYC 320, 322, 325, or 4305

Statistics and Experimental Design
PSYC 381

Cognitive
PSYC 363, 375, 461, 463, 464, or 474

Cognates .......................................................... 6 hrs
Students must also complete at least six hours in cognate courses at the 300 level or above, (excluding co-op’s, internships or independent studies), from: any CASL discipline (excluding psychology); College of Business disciplines; College of Engineering and Computer Science disciplines; College of Education, Health, and Human Services (EDA and EDC disciplines only).

NOTES:
1. A maximum of 54 hrs. in Psychology may count in the 120 hours required to graduate (excluding PSYC 498 and 499 for PSYC Honors students).
2. At least 15 of the 27 upper level hours in PSYC must be elected at UM-Dearborn.
3. No more than 6 hours of Independent Study and no more than 6 hours of Independent Research within the Behavioral Sciences (anthropology, psychology and sociology) may be counted in the 120 hours required to graduate

MINOR OR AREA OF FOCUS

A minor or area of focus consists of PSYC 170 or 171 (PSYC 101 effective Fall 2014) and 12 hours of upper-level credit in psychology.

HONORS PROGRAM IN PSYCHOLOGY

Psychology offers an honors program which provides special opportunities for outstanding students, including a research training seminar followed by research in collaboration with faculty members. Students are formally accepted for the honors program early in their junior year. Prospective students should plan on completing PSYC 381 and a methods course by the end of fall term in their junior year. Requirements for entrance are a) GPA of 3.2 or higher in psychology and overall UM-Dearborn courses and b) informal evidence of being a superior student, such as high motivation and ability to work independently. Requirements for graduation with honors in psychology are the successful completion of:

- all requirements for psychology major
- PSYC 481 Computers in Psychology, normally taken in the fall semester, senior year
- PSYC 498 Honors Seminar normally taken winter term, junior year
- PSYC 499 Honors Research normally completed during senior year
- Research proposal meeting completed early in senior year
- Final Oral Defense completed at least one month prior to graduation

PSYCHOLOGY INTERNSHIP

Juniors and seniors can obtain practical experience working under supervision in a setting relevant to psychology. Internship students will spend approximately 6 or 12 hours per week at their field placement and will attend a weekly seminar on campus. Students may register for PSYC 485 Field Work: Psychology Internship for 3 or 6 credits. Application should be made to the director of the psychology field work program.

Psychology (PSYC)

COURSE OFFERINGS

PSYC 101 Introduction to Psychology
3.000 Credits

Psychology 101 introduces students to theories and research in the field of psychology. This course focuses on the scientific underpinnings of the field from both the social and natural science perspectives.

PSYC 170 Intro to Psych as a Nat Sci
3.000 Credits

A treatment of the principles of sensation, perception, maturation, learning, motivation, memory, thought, language, and physiological bases of behavior. (F,W,S).

PSYC 171 Intro to Psych as a Soc Sci
3.000 Credits

A treatment of the principles of human development, intelligence, motivation, personality theory, social and abnormal psychology, and psychotherapy. (F,W,S).
PSYC 300  Life-Span Developmental Psych  
3.000 Credits  
Prerequisites: PSYC 170 or 171

Theoretical issues of psychological development from birth through late adulthood are emphasized, along with issues regarding research methods. Topics include cognitive, intellectual, personality, and social development through the life-span. (YR).

PSYC 301  Psych of Infant Development  
3.000 Credits  
Prerequisites: PSYC 171 or PSYC 170

An examination of current theories and findings concerning physical, social, emotional, and intellectual development of the infant. Topics include genetic and experiential factors affecting prenatal and infant development, language, cognition, and environmental influences on development. Theory will be related to infant care practices in families.

PSYC 302  Psych of Child Development  
3.000 Credits  
Prerequisites: PSYC 170 or 171

An examination of current theories and findings concerning physical, social, emotional, and intellectual development from conception to late childhood. Topics include genetic and experiential factors affecting child development.

PSYC 303  Intro to Women's & Gender Stud  
3.000 Credits  
May not be enrolled in one of the following Classes:  
  Freshman

This course provides an interdisciplinary overview of the key theories and topics in Women's and Gender Studies. Special attention is given to how gender intersects with class, race, nationality, religion and sexuality to structure women's and men's lives. Students are also introduced to methods of gender analysis and will begin to apply these methods to topics such as women and health, gender roles in the family, violence against women, and gendered images in the mass media.

PSYC 315  Personality Development  
3.000 Credits  
Prerequisites: PSYC 170 or 171

An investigation of the factors involved in the formation of personality and the changes in personality across the life-span. The influence of family, peers, and society will be emphasized. (YR).

PSYC 320  Social Psychology  
3.000 Credits  
Prerequisites: PSYC 171 or PSYC 170 or SOC 200 or SOC 201

An introductory study of the inter-relationships of the functioning of social systems and the behavior and attitudes of individuals. (YR).

PSYC 321  Attitude and Social Behavior  
3.000 Credits  
Prerequisites: PSYC 171 or PSYC 170

An analysis of social attitudes as they relate to personality and to membership in collective structures; the conditions of their formation and modification. (YR).

PSYC 322  Psychology of Prejudice  
3.000 Credits  
Prerequisites: PSYC 170 or 171

A consideration of ethnic (including racial), sexual, and religious prejudice from the psychological point of view, focusing on the mind of both the oppressor and the oppressed. (YR).

PSYC 325  Psy of Interpersonal Relation  
3.000 Credits  
Prerequisites: PSYC 170 or 171

This course presents an overview of theory and research conducted by social psychologists that has been aimed at understanding interactions between individuals. Topics include an exploration of the research process that is used to investigate interpersonal relationships, the processes underlying social perception, friendship, liking, love, close relationships, aggression and violence in interpersonal relationships. (YR).

PSYC 363  Cognitive Psychology  
3.000 Credits  
Prerequisites: PSYC 170 or 171

Analysis of human perceptual and cognitive functioning from an information-processing point of view. Emphasis will be placed on attention, pattern-recognition, memory, problem solving and other cognitive processes. (YR).

PSYC 370  Physiological Psychology  
3.000 Credits  
Prerequisites: PSYC 170 or 171

Integration of physiological concepts with behavioral phenomena. (YR).

PSYC 372  Animal Behavior  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171 or BIOL 100

Comparative psychology. Descriptive analysis of human and animal behavior. (YR).

PSYC 375  Psychology of Language  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171 or LING 280

The nature of human language as seen from the perspective of experimental psychology. The course will also introduce the student to current developments in linguistic theory. (AY).

PSYC 381  Prin of Stat and Exper Design  
3.000 Credits  
Prerequisites: PSYC 170 or 171

An introduction to basic principles of experimental design and statistical analysis as employed in psychological research. Topics covered include data-gathering, descriptive statistics, hypothesis-testing and one- and two-sample experiments, correlational designs, and one- and two-way analysis of variance. (YR).

PSYC 390  Topics in Psychology  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171

Examination of problems and issues in selected areas of psychology. Title listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).
PSYC 391 Topics in Psychology  
3.000 Credits
Examination of problems and issues in selected areas of psychology. Title listed in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

PSYC 394 Psychology and Theater  
3.000 Credits
Prerequisites: PSYC 170 or 171
The linkages between psychology and theater are analyzed from the perspective of the actor, the audience, and the analyst (both psychotherapeutic and literary). This includes ties between plays and theories of human behavior, psychodrama, and self-insight through performance. Class involves a significant experiential component.

PSYC 3955 Diversity and the Workplace  
3.000 Credits
Prerequisites: PSYC 170 or PSYC 171 or WST 275 or OB 354 or HRM 405 or WGST 275 or WGST 303 or PSYC 275 or ANTH 275 or SOC 275 or HUM 275 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303
This course will: 1) discuss gender, race, ethnicity, disability, age, sexual orientation, and appearance as aspects of diversity; 2) examine social values and practices, and organizational policies and procedures that affect or have affected the employment opportunities of underrepresented groups; 3) examine individual (e.g., prejudice, stereotypes), group (e.g., in-groups and out-groups), and organizational (e.g., climate and culture) processes that affect work place diversity and; 4) discuss "best practices" for promoting an organizational culture that values diversity, along with a diverse work force.

PSYC 398 Independent Studies in Psych  
1.000 TO 3.000 Credits
Readings or analytical research in psychology selected in accordance with the interests and needs of students enrolled and agreed upon by the instructor and student. Permission of instructor. (F,W,S).

PSYC 404 Parent-Child Relations  
3.000 Credits
Prerequisites: PSYC 170 or 171
This course examines parental effects on children and children's effects on parents. Emphasis is placed on how the psychologist can collect additional information on the interactions of such people as parents and their children. (YR).

PSYC 405 Gender Roles  
May not be enrolled in one of the following Classes: Graduate  
Prerequisites: PSYC 171 or PSYC 170 or SOC 200 or SOC 201
This course will investigate the development of gender roles in childhood and adolescence due to either innate physiological differences or sociological patterning, the effect of gender roles upon male-female relationships within our society, and the possibility of transcending sociological gender roles in alternate modes of living. Students cannot receive credit for both PSYC 405 and PSYC 505. (YR).

PSYC 407 Psychology of Adolescence  
3.000 Credits
Prerequisite: PSYC 170 or 171
Considers adolescence as an interaction of rapid biological and social change. Students lacking the prerequisite may elect course with permission of instructor. Examines the theoretical and empirical literature in some detail. Students cannot receive credit both PSYC 407 and PSYC 507. (YR).

PSYC 412 Psychology of Aging  
3.000 Credits
Prerequisites: PSYC 170 or 171
This course examines development of the individual from middle adulthood through old age. Special emphasis is given to the understanding of developmental theories and issues in adulthood. Topics include biological basis, socialization, family relationships, personality, and intellectual development in the aging individual. (YR).

PSYC 415 Lab in Developmental Psych  
3.000 Credits
Prerequisites: PSYC 300 or PSYC 302 or PSYC 315 or PSYC 407 or PSYC 418
An examination of research design and methodology as related to developmental psychology. Special emphasis will be given to training students in data collection techniques used in developmental research and in providing practical experience in designing and conducting research. Students cannot receive credit for both PSYC 415 and PSYC 515. (YR).

PSYC 418 Cognitive Development  
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate  
Prerequisites: PSYC 170 or PSYC 171
This course explores theories and methods in cognitive development focusing on Piaget's theory and more recent significant conceptualizations. Topics include stages of cognitive development, types of inferential processes, and the acquisition of world knowledge. Discussions leading to the formation of new research ideas are emphasized. Students cannot receive credit for both PSYC 418 and PSYC 518. (YR).

PSYC 421 Group Processes  
3.000 Credits
Prerequisites: PSYC 170 or PSYC 171 or SOC 200
Topics treated include group cohesiveness, "group think," the social structure of groups, emotional factors in group life, leadership, and the development of groups. (YR).

PSYC 422 Psychology of Leadership  
3.000 Credits
Prerequisites: PSYC 171 or PSYC 170
Analysis of theories and research findings in the field of leadership. Class will participate in and observe leadership-group interactions. Students cannot receive credit for both PSYC 422 and PSYC 522. (YR).

PSYC 425 Lab in Social Psychology  
4.000 Credits
Prerequisites: PSYC 381
A broad introduction to research methods in basic and applied social psychology. Students will receive training in construction, implementation, and interpretation of scientific procedures used in the study of social psychology. Topics include: questionnaire construction, experimental design, and various multivariate analytic techniques. (YR).

**PSYC 4305  Psychology in the Workplace**

3.000 Credits
Prerequisites: PSYC 171 or PSYC 170 or OB 354 or HRM 405

This course introduces students to some of the core content areas of Industrial/Organizational (I/O) psychology. These content areas include: selection, training, performance appraisal, work teams, job design, motivation, leadership, union-management relations, and stress and health in the workplace. Students cannot receive credit for both PSYC 4305 and PSYC 530. (YR).

**PSYC 431  Organizational Entry**

3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Graduate
Prerequisites: PSYC 170 or PSYC 171 or HRM 405 or OB 354

An in-depth consideration of the psychological aspects of the organizational entry process. Topics to be covered include recruitment, selection, orientation, socialization, and training. (OC).

**PSYC 432  Socialization of the Child**

3.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: PSYC 170 or 171

An in-depth consideration of some major social systems that affect the development of the child. Students lacking the prerequisite may elect course with permission of instructor. Students cannot receive credit for both PSYC 432 and PSYC 532. (YR).

**PSYC 440  Abnormal Psychology**

3.000 Credits
Prerequisites: PSYC 170 or 171

An introduction to the field of psychopathology, the study of mental disorders. Includes exposure to a number of historical and theoretical perspectives, each with their own theories, methodologies, and treatment approaches. Disorders covered will include: anxiety and mood disorders, personality disorders, schizophrenia, sexual disorders, and psychosomatic disorders. Students cannot receive credit for both PSYC 440 and PSYC 540. (YR).

**PSYC 441  Intro to Clinical Psychology**

3.000 Credits
Prerequisites: PSYC 170 or 171

Introduction to the logic, problems, and limitations of clinical observations and inference. Issues in diagnosis and treatment are examined, with an attempt to understand parallels between clinical interpretation and problems in other disciplines. (YR).

**PSYC 442  Child Psychopathology**

3.000 Credits
Prerequisites: PSYC 170 or 171

A review of the major psychological disorders of children from birth to adolescence. These disorders are considered from a clinical and theoretical point of view. In addition to an examination of causes, approaches to treatment and behavior modification are considered. Students cannot receive credit for both PSYC 442 and PSYC 542. (YR).

**PSYC 4445  Personality Assessment Lab**

4.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: PSYC 170 or 171

This is a course in methods of assessing personality. The theory and methods of observation, interviewing, questionnaires, IQ tests, and projective tests are discussed and employed in brief individually-designed studies. In addition to the course prerequisite, students should have at least three upper-level psychology credits and junior or senior standing or permission of the instructor. Students cannot receive credit for both PSYC 4445 and PSYC 544. (YR).

**PSYC 446  Human Sexual Behavior**

3.000 Credits
Prerequisites: PSYC 170 or 171

A comprehensive review of facts about human sexuality. The emphasis is on psychological aspects of sex, but there is also a consideration of genetic, physiological, and anatomical aspects of sex, and contemporary issues. Students cannot receive credit for both PSYC 446 and PSYC 546. (YR).

**PSYC 450  Personality Theory**

3.000 Credits
Prerequisites: PSYC 170 or 171

A comparative review and examination of leading theories of personality; their basic concepts, similarities and differences, applications in clinical psychology, in education, in social planning, and in research. Students cannot receive credit for both PSYC 450 and PSYC 550. (YR).

**PSYC 451  Prin of Counseling and Psych**

3.000 Credits
Prerequisites: PSYC 170 or 171

An introduction to traditional and innovative methods of psychological counseling and psychotherapy with an emphasis upon the theoretical foundations of personality and behavior change. Differences and similarities among the various schools of counseling and psychotherapy will be examined among with the values and limitations common to them all. (YR).

**PSYC 455  Health Psychology**

3.000 Credits
Prerequisites: PSYC 170 or 171

A discussion of the research on health promotion, psychological factors in the development of illness, cognitive representations of health and illness, stress and coping, social support, nutrition and exercise. Focus will be on the factors related to the development and maintenance of optimal health. Students cannot receive credit for both PSYC 455 and PSYC 555. (YR).

**PSYC 456  Sport Psychology**

3.000 Credits
Prerequisites: PSYC 170 or 171
A consideration of research and theory aimed at two objectives: (a) understanding how psychological variables affect physical performance and (b) understanding how participation in sports influences psychological development. (YR).

**PSYC 461 Learning and Memory**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: PSYC 170 or PSYC 171  

A consideration of major theories and research results related to learning and memory in humans and animals. Students cannot receive credit for both PSYC 461 and PSYC 561. (YR).

**PSYC 463 Sensation and Perception**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: PSYC 170 or 171  

Analysis of basic sensory and perceptual phenomena with a review of relevant behavioral and physiological literature. Students cannot receive credit for both PSYC 463 and PSYC 563. (YR).

**PSYC 464 Human Factors Psychology**  
3.000 Credits  
Prerequisites: PSYC 170 or 171  

This course will provide an overview of the field of human factors, including two major components: (1) a background in specific content areas of psychology that have direct relevance to the field, and (2) a survey of direct applications of these areas to real-world problems. The content areas include research methods, sensory and perceptual processes, learning and memory, human information processing, decision making, problem solving, and language and communications. Direct applications include accident avoidance, design of displays and instrument panels, automation, human-computer interaction, control devices, and transportation. (YR).

**PSYC 465 Experimental Psychology**  
3.000 Credits  
Prerequisites: (PSYC 170 or PSYC 171) and PSYC 381  

Laboratory course in Experimental Psychology, including sensation, perception, learning, memory, language, and problem solving. Students will perform standard experiments, design one or two new modified experiments, collect data, analyze results, and present them in the form of laboratory reports. (YR).

**PSYC 470 Advanced Physiological Psych**  
3.000 Credits  
Prerequisites: PSYC 370  

Further study of the subject matter of PSYC 370. Advanced study of topics in the area of psychobiology. Students cannot receive credit for both PSYC 470 and PSYC 570. (YR).

**PSYC 471 Reproductive Phys and Beh**  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171  

An in-depth examination of reproduction from a physiological and psychological viewpoint. Physiological topics include anatomy, hormones, and neural mechanisms. Psychological topics include behavior development and descriptions. Students cannot receive credit for both PSYC 471 and PSYC 571. (YR).

**PSYC 4725 Motivation and Behavior**  
3.000 Credits  
Prerequisites: PSYC 170 or 171  

Study of the psychobiological aspects of motivated behavior. Topics include hunger, addiction, aggression, sleep, and achievement. Students cannot receive credit for both PSYC 4725 and PSYC 572. Prerequisites or permission of instructor. (YR).

**PSYC 473 Clinical Neuropsychology**  
3.000 Credits  
Prerequisites: PSYC 370  

This course is an in-depth examination of the field of clinical neuropsychology including a review of brain anatomy and physiology, theories of neural organization, and disorders of the nervous system. In addition, students will learn techniques utilized in neuropsychological assessment. (Prerequisite may be waived for students with Natural Science background.) (YR).

**PSYC 474 Animal Intelligence**  
3.000 Credits  
Prerequisites: PSYC 372 or PSYC 363 or PSYC 461 or BIOL 419 or BIOL 456 or ANTH 336  

Animal Intelligence involves the study of human and non-human animal behavior and cognition in an evolutionary and comparative framework. As an introduction to human and non-human animal cognition and thought processes this course will examine topics such as problem-solving, spatial cognition, categorization, memory, number concepts, tool-use and tool-production, insight, imitation, social cognition, self-recognition and language (-like) behavior. In addition to discussing basic experimental findings about cognition in animals, an emphasis is placed on the logic and evidence used to justify theoretical conclusions. The course requires reading and critiquing original journal articles in addition to textbook chapters for foundational concepts.

**PSYC 480 History of Psychology**  
3.000 Credits  
Prerequisites: PSYC 170 or PSYC 171  

An overview of the development of modern psychology from the 17th century to the present, with particular emphasis on the beginning of psychology in America. The philosophical assumptions of various schools of psychology will be examined. (YR).

**PSYC 481 Computers in Psychological Res**  
3.000 Credits  
Prerequisites: PSYC 381  

An introduction to the use of computers in data analysis and psychological research. Students will receive training in computer programming using SPSSPC and other software packages. Topics will include: correlation, regression, analysis of variance, and several multivariate techniques. (YR).

**PSYC 485 Psychology Internship**  
3.000 OR 6.000 Credits  
Prerequisites: PSYC 170 or 171  

Students will perform standard experiments, design one or two new modified experiments, collect data, analyze results, and present them in the form of laboratory reports. (YR).
The public relations certificate requires the following courses:

**Notes Regarding PR Certificate Program:**
1. A minimum 2.0 cumulative GPA and a minimum of twelve earned hours completed at UM-Dearborn are required for admission to the program.
2. A maximum of nine credit hours may simultaneously count toward the PR certificate and toward the Communication major.
3. A maximum of two transfer courses (six credit hours) may count toward the PR program.
4. A minimum 2.0 GPA in the courses counting toward the PR certificate and minimum 2.0 cumulative GPA are required at the time of graduation and/or posting of the certificate.

**Religious Studies**

**MINOR OR BGS/LIBS AREA OF FOCUS ONLY**
It is impossible to understand any cultural context, including Western, without knowledge of the traditions, influence and rationale of its religious underpinnings. In light of this fact, a Religious Studies minor has been established to provide a focus for discussions of the ethical standards and the cultural orientations that have been fostered by various religions. It is also the objective of this program to provide a background in the religious beliefs, practices, and aesthetics of other cultures in order to give students insight into the basis of social and political actions that otherwise are subject to misunderstanding.

Religious Studies is an interdisciplinary course of study which requires one prerequisite course (RELS 120 Philosophy and Religion; or RELS 201 Religions of the World) and 15 upper level credit hours of any RELS courses.

**Religious Studies (RELS)**

**COURSE OFFERINGS**

**RELS 120  Philosophy and Religion**
3.000 Credits

An examination of how basic concerns of philosophy impinge on questions of religious beliefs. Using philosophical texts, the course will explore such questions as the following: Does God exist? Does human life have a purpose? How can we know whether religious claims are true?

**RELS 201  Religions of the World**
3.000 Credits

A study of religion in essence, in manifestation, and in relationship with the other dimensions of culture. Surveys major world religions.

**RELS 327  Myth & Ritual in Classical Art**
3.000 Credits

Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 105

Polytheistic, multicultural religious practices shaped Greek and Roman culture and society. This course examines the main deities, myths, rituals and sanctuaries of the ancient Mediterranean through the study of art, architecture, texts and archaeology. Freestanding sculptures, relief sculptures, vase paintings, wall paintings, mosaics, coinage, altars and temples will be analyzed.
RELS 331 Erly Christian Byzant Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106
Borrowing its formal language from late antiquity and its symbolism from other mystery cults, the art of early Christianity emerged from the Roman catacombs to monumental expression under emperors Constantine and Justinian. Special attention will be devoted to the invention of a new symbolic language in art and to the development of church architecture.

RELS 332 The Reformation Era: 1500-1648
3.000 Credits
A study of the nature, course, and impact of the Protestant Reformation in Europe, Humanism, the Counter-Reformation, and the cultural and social implications of Protestantism also receive attention. (YR).

RELS 333 Intro to Gospel Music
3.000 Credits
This course explores the history and aesthetics of Black sacred music within cultural context. Major figures (Thomas A. Dorsey, Mahalia Jackson, The Winans Family, Kirk Franklin), periods (slavery, Great Migration, Civil Rights movement), and styles (folk and arranged Negro spirituals, congregational songs, and gospel songs - traditional to contemporary) will be studied through recording, videos, film, and at least one field experience. Underlying the course is the theory (Mellonee Burnim and Pearl Williams-Jones) that gospel music is an expression of African American culture that fuses both African and European elements into a unique whole. (OC).

RELS 335 Women in Medieval Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or WGST 275 or WGST 303 or HUM 275 or HUM 303 or ANTH 275 or ANTH 303 or PSYC 275 or PSYC 303 or SOC 275 or SOC 303 or WST 275
Women have often been regarded as the second sex of the middle ages due to the misogynistic attitudes of that era. Recent scholarship, however, as unearthed a significantly more complex picture. Through a study of visual representations of women in medieval art, this course will examine women's roles in the creation and patronage of art and literature, economic and family issues, and women's participation in new and innovative forms of religious piety.

RELS 337 Islamic Movements Mid East Hist
3.000 Credits
Will compare several Islamic movements in Middle Eastern history, starting with the rise of Islam in Mecca and Medina. Later impulses toward Islamic revival all looked back to the first movement, and hoped to capture both its spirit and its success. With this as background, the course will move to address two questions: How did later Islamic movements understand the history of the rise of Islam? How have later Islamic movements had to adapt their methods and their ideology to different historical circumstances? (AY).

RELS 338 WomenIslam in MidEast to 1900
3.000 Credits
This course covers the historical development of Islam's normative stance towards women and gender roles in the Middle East from the rise of Islam to the earliest stirrings of feminist activism.

RELS 341 Religion and Literature
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)
An investigation of the ways in which religious ideas and practices have informed works of literature, and vice versa. Surveying a variety of genres and themes, the course will focus mainly on British and/or American literature and its engagement with Judaeo-Christian religion, though some attention may be devoted to other literary and religious traditions (e.g., ancient and medieval texts, European and world literature, Islam and Eastern religions).

RELS 342 Myth and Motif
3.000 Credits
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200
A study of archetypal figures and thematic motifs. Their recurrent appearance in different literary periods and genres and their lineage will be examined in order to increase understanding of the works themselves and of the ages which produced them. A selection will be made from classical myth, Biblical narrative, and historical sources. Thus the figures may vary from Oedipus and Cain to Faust and Don Juan. Motifs or story patterns may include such devices as the spiritual quest, the journey into Hell, or the patricide prophecy.

RELS 346 Bible and Western Tradition
3.000 Credits
A detailed study of major episodes from the Bible, first as a literary work, and second as it is reflected in both poetry and the visual arts during the Renaissance and Baroque periods. Included are selected works by such masters as John Donne, George Herbert, and John Milton in poetry and Michelangelo, Raphael, and Leonardo da Vinci in painting and sculpture.

RELS 349 Bible In/As Literature
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200)
This course will study selected readings from the Bible, first in regard to their own literary, historical, and cultural contents, and then in regard to their reception, interpretation, and reapplication by later literary tradition. Biblical selections will cover both the Old and New Testaments as well as Apocryphal traditions, while reading from later non-biblical texts will be drawn from various literary periods.

RELS 355 Religion and Politics
3.000 Credits
The primary focus of the course is on political movements or systems, which take a religious form or have a religious base or use a religiously rooted ideology. Possible themes or cases covered include millennialism, the Iranian Islamic revolution, the Catholic Church as a political system, liberation theology in Latin America, Zionism and the Evangelical movement in America. (AY).
REL 360  Myth, Magic, and Mind
3.000 Credits
A broadly based introduction to the range of human mythical and magical traditions. Sophomore standing; ANTH 101 highly recommended. (YR).

REL 363  Rel in Amer Hist:1607-1865
3.000 Credits
A survey of the religious movements and trends in America from the 17th century to the Civil War, with emphasis on Puritanism, 18th-century revivalism, and 19th-century denominationalism and social reform. (AY).

REL 364  History of Islam in the US
3.000 Credits
Must be enrolled in one of the following classes:
- Senior
- Sophomore
- Freshman
- Junior

This course traces the long history of Islam and of Muslims in the United States (1730s-present), paying careful attention to the interaction among Muslims across the dividing lines of race, gender, immigrant generations, sect, political orientation, and class, and between Muslims and other Americans.

REL 365  Introduction to the Qur'an
3.000 Credits
This course is an introduction to the Qur'an. This class will cover the historical and the cultural factors in which the Qur'an appeared. The class will also examine some of the major themes covered in the Qur'an such as gender, science, pluralism, worldview and so forth. Also, will cover major schools of interpretations and methodologies ranging from the literary to the scientific. The class will be conducted in English and knowledge of Arabic is desired but not required. No prerequisites. The class will consist of lectures, discussions, and movies.

REL 373  Bible in History
3.000 Credits
In this course we will try to examine the historical circumstances and contexts surrounding the writing of The Hebrew Bible. Roughly speaking, we will begin by exploring three aspects of the subject: Historical context of the writing of the Bible-i.e. during the organizing and communicating of each segment. History of the canonization: the ideas and rationale behind including some books but not others. History in the Bible. In more specific terms, this will entail examining who wrote the Bible, when and why. The narrative incorporates the movement from an oral tradition to a written one and will demand some focus on certain pivotal moments, e.g., Ezra's reading (cf. Ezra-Nehemiah), or the historical events in Kings and Chronicles, or the defeat of the northern kingdom of Israel in 722 B.C.E. (BC) and of the southern kingdom of Judah in 589 B.C.E.

REL 384  Islamic Decorative Arts
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or HUM 201 or RELS 201

This course is an in-depth investigation of the decorative arts of the Islamic Middle East from the seventh through the eighteenth century including the lands of Islamic Spain and North Africa and extending east to Afghanistan. The course traces the development of decorative styles in objects of daily and courtly life, particularly ceramics, metal work, glass, wood and ivory carving, textiles and rugs. The central role played by calligraphy in all of the arts in emphasized as well as in manuscript production and the Arts of the Book. As a religion, but also a way of life, Islam fostered a distinctive artistic production reflected in these decorative arts.

REL 385  Philosophy of Religion
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 233 or PHIL 234 or PHIL 240 or PHIL 301 or PHIL 302 or PHIL 303 or PHIL 304 or PHIL 305 or PHIL 310 or PHIL 315 or PHIL 320 or PHIL 365 or PHIL 340 or PHIL 355 or PHIL 350 or PHIL 369 or PHIL 371 or PHIL 375 or PHIL 380 or PHIL 390 or PHIL 441 or PHIL 442 or PHIL 445 or PHIL 485 or PHIL 490 or RELS 120

A philosophical examination of basic religious problems, such as the nature and grounds of religious belief, the existence and nature of God, human immortality, the relations of religion and science, and the nature or religious language. Students electing this course must have successfully completed a previous course in philosophy or have permission of the instructor.

REL 390  Topics in Religious Studies
3.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate
- May not be enrolled in one of the following Classes:
- Sophomore
- Freshman

Examination of problems and issues in selected areas of religious studies. Title in Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. Junior standing required.

REL 401  Religion in Contemp US Culture
3.000 Credits
The purpose of this course is to provide people in contemporary multi-religious America foundational information about beliefs and practices of several of the world's religions sufficient to engage in inter-religious dialogue. Special emphasis will be given to changes the American religious landscape after 1965 with the passage of new immigration laws. The course will combine lectures and visits to a variety of Metropolitan Detroit religious centers including Hindu, Buddhist, Jain, Sikh, Jewish, Christian, Muslim, and Native American. (S).

REL 404  Medieval Mystical Writers
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

A study of the genre of mystical writing as it was developed and practiced throughout the Middle Ages and in 14th century
England particularly. Attention will be given to the historical, religious, and cultural contexts that enabled and were created by mystical texts. In addition, the course will explore how traditional and contemporary trends in the field of religious and literary studies can be brought to bear on the genre of mystical writing. (OC)

**RELS 440  Religion and Culture**  
3.000 Credits  
An introduction to the comparative study of religious systems. Explores religious beliefs and practices in non-Western cultures; surveys theoretical approaches to the study of religion; and discusses how religions grow, develop, and change. ANTH 101 recommended. (YR).

**RELS 455  Sociology of Religion**  
3.000 Credits  
Prerequisites: SOC 200 or 201  
Religion as a social institution; its purposes, methods, structure, and beliefs, and its relation to other institutions.

**RELS 498  Independent Study**  
3.000 Credits  
Prerequisites: HUM 201 or PHIL 120  
Must be enrolled in one of the following classes:  
Senior  
Junior  
This course provides an opportunity for qualified students interested in Religious Studies to pursue independent research under the direction of a qualified faculty member. The project must be defined in advance, in writing, and must be a topic not currently offered in the regular curriculum.

### Science and Technology Studies  
(minor or BGS/LIBS Area of Focus only)

In a democratic society increasingly reliant on science and technology, it is crucial for citizens to understand the social, political, ethical, economic, and environmental issues at stake in the development, distribution, consumption, and control of the products of science and technology. Science and Technology Studies (STS) is an interdisciplinary program in which the methods and perspectives of various disciplines in the humanities, social sciences, and behavioral sciences are used to examine the social contexts from which science and technology emerge, the intertwined organizations of people and things used to implement scientific and technological systems, the social consequences of these systems, and the cultural reactions to them.

In keeping with UM-Dearborn’s location and its historic and continuing connections to the automobile industry, the STS Program gives special attention to the impact of the automobile in American culture. The program’s introductory course, for example, analyzes the social as well as the technical reasons for the emergence of the internal combustion engine, the reorganization of factories and reconceptualization of labor fueled by mass production and lean production, the impact of the automobile on the design of cities and the development of suburbs, and the iconic status of the car in American culture. A website on “The Automobile in American Life and Society” (autolife.umd.umich.edu) has been developed by the STS Program and is used in the introductory course.

Most of the courses in STS are cross listed with other disciplines, and the STS faculty hold appointments in such fields as Anthropology, Art History, Biological Sciences, Communications, Economics, English, Environmental Studies, History, Mathematics, Mechanical Engineering, Philosophy, Psychology and Sociology.

A minor in STS is particularly relevant for students who live and work in southeast Michigan and makes an appropriate complement to any field of study in the arts and sciences, engineering, education, or management.

Students who wish to minor in STS must complete STS 300 Introduction to Science and Technology Studies and four courses from the list below, with at least one course from each of the three areas. Contact the STS Director for updated information about course offerings.

#### Required courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>STS 300</td>
<td>Introduction to Science and Technology Studies</td>
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**Science, Technology and Cultures**  
3 hrs  
One course from the list below

- STS 310  Computers and Society  
- STS 326  Gender and Science  
- STS 340  Race and Evolution  
- STS 345  Cultural Ecology and Evolution  
- STS 349  Thomas Edison and His Era  
- STS 360  Philosophy of Technology  
- STS 374  History of Industrial Technology*  
- STS 386  Comparative History of Technology*  
- STS 403  Issues in Cyberspace  
- STS 409  Human Body, Growth and Health  
- STS 410  Darwinism and Philosophy  
- STS 430  Medical Anthropology  
- STS 485  Philosophy of Science  
- STS 488  Environmental Literature and Representations of Nature  

**Science, Technology and Labor**  
3 hrs  
One course from the list below

- STS 305  Social Issues in Auto Design and Engineering*  
- STS 310  Computers and Society  
- STS 321  Labor in the American Economy*  
- STS 383  Labor in America*  
- STS 421  Economics of the Labor Sector*  
- STS 441  Sociology of the Auto Industry*  
- STS 442  Sociology of Work*  
- STS 464  Human Factors in Psychology  

**Science, Technology and Environments**  
3 hrs  
One course from the list below

- STS 301  Concepts of Environmentalism*  
- STS 305  Social Issues in Auto Design and Engineering*  
- STS 308  Urban Geography  
- STS 309  Economic Geography*  
- STS 312  Environmental Ethics  
- STS 325  Environmental Politics*  
- STS 365  Environmental Psychology*  
- STS3666  Henry Ford and His Place  
- STS 3695  The American City*  
- STS 384  Environment, Architecture, and Design*  

One additional course from any of the above.

*An asterisk indicates a course that contains some attention to the automobile.*
Science and Technology Studies (STS)

COURSE OFFERINGS

STS 300 Intro to Sci & Technol Studies
3.000 Credits
An examination of the social contexts and consequences of science and technology, with special attention to the impacts of the automobile and automobile industry on American society. Topics include the automobile's role in the history of manufacturing; the impact of various production techniques on work and workers; the effects of the automobile on the natural environment, the design of cities and development of suburbs, and ways of life; the iconic status of the car in American culture and the relationship between automobile design and aesthetics. (YR).

STS 301 Concepts of Environmentalism
3.000 Credits
Designed to identify the underlying concepts of any environmental issue. The course will demonstrate the interdisciplinary nature of environmental problem-solving through current readings, classical monographs, and films. Students will conduct a systems analysis of a household and a local community. A major research paper on an environmental topic will be required. The course will not be open to students who take ENST 105. (YR).

STS 305 Social Issues in Auto Design
3.000 Credits
Prerequisites: COMP 105 or COMP 110 or CPAS 30
An examination of the impact of four contemporary social issues - vehicle safety, energy consumption, environmental impact, and a changing workforce - on the design and engineering of automobiles in the context of globalization and rapid technological change. Using a series of case studies, the course will focus on the ways social concerns, government regulation, and professional ethics, as well as industry standards and technical considerations, affect the decision-making processes of automobile designers and engineers. (OC).

STS 308 Urban Geography
3.000 Credits
The geography of human settlement and urbanization. Particular emphasis placed on human transformation of the physical environment, and resource use throughout history from ancient civilizations to modern megalopolises. Universal urban challenges, such as sprawl, pollution, congestion, crime, poverty, etc., are addressed. (F,W).

STS 309 Economic Geography
3.000 Credits
Spatial aspects of the ways people make their living. Discussion of the spatial distribution of resources and wealth at various scales. Introduction of site selection and location analysis. (F).

STS 310 Computers and Society
3.000 Credits
Prerequisites: SOC 200 or SOC 201
A sociological discussion of computers and other information technology starting with the larger concept of technology and social change, an exploration of various forms of information technology, their history and development, their relationship to the changing social structure of a post-industrial society like 20th/21st-century USA. Case studies could include "Computers and the Workplace," "Computers in Medicine," "Computers and Education," and "Computers in Popular Culture." Course concludes with a discussion of new social problems and possible futures. (OC).

STS 312 Environmental Ethics
3.000 Credits
Prerequisites: PHIL 100 or PHIL 120 or PHIL 200 or PHIL 233 or PHIL 240
The relationship of human beings to the non-human environment raises pressing moral and political issues. This course will use the theories and concepts of philosophical ethics to explore such questions as human obligations to non-human animals; the preservation of wilderness; balancing economic, aesthetic, and spiritual values; and the problems of pollution, urban sprawl, and ecological justice. (OC).

STS 321 Labor in the American Economy
3.000 Credits
Prerequisites: ECON 201 and ECON 202
An analysis of the nature and underlying causes of the problems facing the worker in modern economic society. Includes an examination of wages, unemployment, economic insecurity, the trade union movement, collective bargaining, and labor legislation. (F).

STS 325 Environmental Politics
3.000 Credits
An examination of policy making on environmental and energy problems globally, nationally, and locally.

STS 326 Gender, Science, & Engineering
3.000 Credits
Explores some of the history of women in science and engineering, the current status of women in science and engineering, and feminist theory in research. Topics include cultural influences on women in science and engineering, careers and life balance, and a feminist approach to scientific and engineering teaching and research. Discussion, Lecture OR hybrid OR online. (OC).

STS 340 Race and Evolution
3.000 Credits
An evolutionary survey of the biological differences among human populations in response to such factors as climate, culture, disease, nutrition, and urbanization. The meaning of racial variation is discussed in terms of adaptation to environmental stress. "Race" is rejected; racism is discussed. (AY).

STS 345 Cultural Ecology & Evolution
3.000 Credits
An introduction to the study of human ecology. This course employs the case-study method to develop an evolutionary and biocultural perspective on the relationship between human beings and their environments. (OC).

STS 349 Thomas Edison and His Era
3.000 Credits
This course will introduce students to the life and work of Thomas Edison. Breaking with the stereotype of the lone inventor/genius, we will examine how Edison helped shape and was in turn shaped by the context of the Gilded Age America when the United States emerged as an urban, industrial nation.
Lectures and discussions will be supplemented by slides, films, and visits to the Edison-related sites at the Henry Ford. Throughout the course the following themes will be explored: invention and the labor process, the significance of manufacturing and marketing, the origins of modern consumer culture. (OC).

STS 360 Philosophy of Technology
3.000 Credits
A study of both the history of, and current issues in, the philosophy of technology. This course will examine the deeper meaning and implications of our modern technological society. Questions examined include: What is the definition and nature of technology? How did the concept originate in Western thought? What is the relationship between modern industrial technology and the 'mechanistic' worldview? How do Western religious beliefs influence our attitudes about technology? Is technological progress socially determined, or is it culturally independent? In what ways has our technological society been supportive of, or detrimental to, overall human well-being? Students will cover both classic and contemporary readings.

STS 365 Environmental Psychology
3.000 Credits
Prerequisites: PSYC 170 or PSYC 171
A survey of the contributions of the behavioral sciences to the understanding and solution of environmental problems that threaten our survival. Insights derived from psychology, anthropology, and computer science are discussed. Major topics include overpopulation, overconsumption of resources and energy, future shock, cognitive limitations in our understanding of ecological-political systems, and the use of behavioral control. (OC).

STS 3666 Henry Ford and His Place
3.000 Credits
Using the biography of Henry Ford as a touchstone, the course will examine the trajectories of historical change and regional development between 1870 and 1950. Of fundamental concern will be southeastern Michigan's transformation from a 19th century outpost on the Great Lakes to the nation's "engine of change" in the 20th century. Henry Ford was the major player in that revolutionary transformation. This course examines his role in history and mythology as well as the causes and implications of that transformation. (OC).

STS 3695 The American City
3.000 Credits
This course examines the development of urban America from the European-style port cities of the colonial period through the edge cities of today. The bulk of the course will focus on the late 19th and 20th century urban environment with an eye towards understanding the diverse residents, cultures, economies, and geographies that have shaped the American cities. We will cover everything from developments in transportation, architecture, business, and technology to immigration, politics, and urban culture. Broad concerns and constituencies have shaped the urban public sphere, the physical development of cities and the experiences of living as an urbanite and, consequently, they will receive much of our attention. American patterns of development will then be placed in context with those of other nations and cultures.

STS 374 Hist of Industrial Technology
3.000 Credits
Focusing on western Europe and the United States since the Industrial Revolution, this course will examine the history of manufacturing technologies and will include the following topics: mechanization and the rise of the factory; mass production; the process of innovation; design and diffusion of new technologies; technologies; technology and the changing nature of work; discussions, and examination of artifacts (actual tools and machines), students will consider the central role played by technology in the making of modern society. (YR).

STS 383 Labor in America
3.000 Credits
A survey of urban workers from colonial times to the present. Among the topics covered are changing standards of living, the experiences of industrial work, labor organizations, and working-class politics. (OC).

STS 386 Comparative Hist of Technology
3.000 Credits
This course will examine the history of technology from a comparative perspective; studying the development and impact of technology in different societies during various historical eras. Topics include: irrigation control and the rise of ancient empires; technology's role in the industrial revolution; technological innovation and the pace of social change. Current issues and various analytical perspectives in the history of technology will also be examined. (OC).

STS 390 Topics in STS
3.000 Credits
Examination of problems and issues in selected areas of Science and Technology Studies. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when specific topics differ. (OC).

STS 4021 Economics of the Labor Sector
3.000 Credits
Prerequisites: ECON 302
Theoretical analysis and empirical studies of the nature and operation of labor markets. Includes theories of wage determination and income distribution, the nature of unemployment, the impact of collective bargaining on the economy, the extent and economic effects of discrimination, and the nature and effects of government wage and employment policies. ECON 321/STS 321, Labor in the American Economy, is valuable background to this course although it is not a prerequisite. This course counts as a required capstone (4000-level) course in Economics and also counts toward the Economics Honors designation.

STS 403 Issues in Cyberspace
3.000 Credits
This course will explore some of the social, political, legal, and technological issues associated with the use of new media technology to move ideas and information in a democratic society. Examples of areas to be explored include the Internet and World Wide Web, privacy, the future of the mass audience, and the meaning of the First Amendment in the 21st Century. (AY).

STS 409 Human Body, Growth & Health
3.000 Credits
This course provides and advanced undergraduate introduction to the topic of human growth and shows how human growth can be a reliable measure of the psychological, social, economic and moral conditions of a society. A major theme will be the interplay of
biology and culture in shaping the patterns of human growth and, consequently, the health of populations and individuals. (OC).

STS 410  
**Darwinism and Philosophy**  
3.000 Credits  
Prerequisites: PHIL 100 or PHIL 210 or PHIL 200 or PHIL 233 or PHIL 240

Darwinism represents a challenge to the traditional view of human life as radically separate from the rest of the natural world. This course will examine the philosophical implications of this world view. It will address questions such as these: Is Darwinism compatible with traditional religion? Does Darwinism imply that human life and the cosmos are without purpose? Can human life be meaningful if it is the result of evolution and natural selection? Does Darwinism require us to change our view of nature? What are the ethical implications of a Darwinian view of life and the universe? (OC).

STS 430  
**Medical Anthropology**  
3.000 Credits

A comprehensive examination of how culture mediates processes of illnesses and healing. Comparative materials examined, which provide a context for an anthropological analysis of modern biomedicine. (YR).

STS 441  
**Sociology of the Auto Industry**  
3.000 Credits  
Prerequisites: SOC 200 or 201

The American auto industry is examined in its relationship to the economic and political structures of 20th-century U.S. This includes a focus on the social history of the industry as well as a discussion of the nature of auto work. Proposals for changing social relations at work are also examined. The course concludes with an examination of the impact of the industry on a local community (Detroit). (F,W).

STS 442  
**Sociology of Work**  
3.000 Credits  
Prerequisites: SOC 200 or 201

The study of work roles in modern society. The impact of industrialization, professionalization, and unionization on the conditions of work, worker motivation, and job satisfaction. Career choice processes and career patterns, occupational status and prestige, and occupations associations are among the topics to be considered. (YR).

STS 464  
**Human Factors Psychology**  
3.000 Credits  
Prerequisites: PSYC 170 or 171

This course will provide an overview of the field of human factors, including two major components: (1) a background in specific content areas of psychology that have direct relevance to the field and (2) a survey of direct applications of these areas to real-world problems. The content areas include research methods, sensory and perceptual processes, learning and memory, human information processing, decision making. (YR).

STS 485  
**Philosophy of Science**  
3.000 Credits  
Prerequisites: PHIL 100 or PHIL 120 or PHIL 200 or PHIL 233 or PHIL 240

A critical study of the foundations of the sciences, natural and social, with emphasis on the following topics: the nature of scientific method, theories and explanation, probability and determinism, the unity of the sciences. (OC).

STS 488  
**Env Lit & Reps of Nature**  
3.000 Credits  
Prerequisites: ( COMP 106 or COMP 220 or COMP 280 or CPAS 40 or COMP 270) and ( ENGL 230 or ENGL 231 )

An interdisciplinary study of the ways in which the relationship between "nature" and humankind has been represented in literature and other forms of cultural expression. Emphasis on American and British texts of the 19th and 20th centuries, but assigned materials may include readings from other cultures and historical periods. (OC).

**Social Sciences (SSCI)**  
(not a field of concentration)

**COURSE OFFERINGS**

SSCI 390  
**Topics in Social Sciences**  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Levels: Undergraduate

Examination of problems and issues in selected areas of social science. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when the specific topic differs. (OC)

**Social Science Research Methodology**

MINOR OR BGS/LIBS AREA OF FOCUS ONLY

Requires 15 credits of upper level course work from the following (must include courses from three disciplines): ANTH 370; ECON 305, 4015; MATH 363; POL 300; PSYC 381, 464; SOC 410.

**Social Studies**

The Social Studies major provides students with a broad range of courses through which to examine and appreciate the processes and institutions that shape civilizations and social orders. It seeks to recreate the context of changing human activities, be they cultural, economic, geographic, political, or social, and to explain and understand the contemporary human condition. Because of its interdisciplinary structure, the Social Studies major is valuable for those who want a multidimensional understanding of the human past and future, and of the contemporary world and their own place in it.

The degree was especially designed for students seeking to become secondary school teachers, but it could also provide background for those who seek a career in government work, law or business.

**MAJOR REQUIREMENTS**

Students must complete 33 hours of coursework in Economics, Geography, History, and Political Science from the following:
Society and Technological Change

MINOR OR BGS/LIBS AREA OF FOCUS ONLY
Requires 15 credits of upper level course work from the following: ENGL 453; JASS 403; LIBS 364; PSYC 464; STS 300; SOC 441.

Sociology

The field of sociology has grown in scope and importance as society has grown more complex and pluralistic. The modern individual is involved in a tightly integrated, sometimes conflicting, network of social groups, families, institutions, governmental, economic, educational and religious bodies, and specialized community organizations. Sociology studies the internal structure by which society is organized, the development and dynamics of the various groupings within it and the influences of these upon the individual. The undergraduate program in sociology provides a focus for general liberal education, as well as for preparation for careers in sociology. These include careers in social work and related human services, law, criminal justice, labor relations, public administration, business management, human relations, marketing and public opinion research.

PREREQUISITES TO THE MAJOR

A student desiring to major in sociology is required to have completed an introductory course in sociology, or to complete SOC 200 or SOC 201 at UM-Dearborn. The introductory course (or its equivalent) is the prerequisite for all other sociology courses.

MAJOR REQUIREMENTS

Students must complete 28 hours in sociology in course numbered 300 or above. All students are required to complete 18 of these 28 hours in sociology at the UM-Dearborn campus. All majors must complete the following courses:

Required courses

SOC 308 Development of Sociological Theory ...... 3 hrs
SOC 410 Qualitative Research.......................... 4 hrs
SOC 413 Quantitative Research........................ 3 hrs

Macro Sociology ......................................... 3 hrs
One of the following
SOC 422 Structure of American Society
SOC 423 American Social Classes
SOC 450 Political Sociology
SOC 453 Sociology of Law
SOC 455 Sociology of Religion
SOC 457 Family, Aging and the Law
SOC 458 Sociology of Education
SOC 460 America in a Global Society

Public Issues................................................. 3 hrs
One of the following
SOC 350 Poverty and Inequality
SOC 402 Genocide
SOC 403 Minority Groups
SOC 446 Marriage and Family Problems
SOC 447 Family Violence
SOC 465 Deviant Behavior/Social Disorganization
SOC 469 Juvenile Delinquency

Organizations.............................................. 3 hrs
One of the following
SOC 439 Sociology of Professions
SOC 440 Medical Sociology
SOC 442 Sociology of Work
SOC 456 Health Care and the Law
SOC 477 Social Welfare
SOC 483 Complex Organizations

The Individual and Society.......................... 3 hrs
One of the following
SOC 382 Social Psychology
SOC 426 Society and Aging
SOC 443 Gender Roles
SOC 445 The Family
SOC 449 Black Family in Contemp Amer

Senior Seminar........................................... 3 hrs
SOC 497 Senior Research Seminar

One any upper level Sociology course ............. 3 hrs

*Note: Double majors in sociology and psychology may use PSYC 425 in combination with PSYC 381 or SOC 383 as a substitute.

Students are required to develop a portfolio before graduation. Please see a sociology advisor for specific portfolio requirements.
Cognates ................................................................. 6 hrs
Students must also complete six hours in upper level cognate courses from two of the following six disciplines: ANTH, CIS, ECON, HIST, POL, STAT. Internships in these disciplines cannot be used to satisfy the cognate requirement.

NOTES:
1. A maximum of 44 hrs. in Sociology may count in the 120 hours required to graduate.
2. At least 18 of the 28 upper level hours in SOC must be elected at UM-Dearborn.
3. No more than 6 hours of Independent Study and no more than 6 hours of Independent Research within the Behavioral Sciences (anthropology, psychology and sociology) may be counted in the 120 hours required to graduate.

MINOR OR BGS/LIBS AREA OF FOCUS
A minor or area of focus consists of 12 hours of upper-level credit in sociology.

SOCIAL WORK/CRIMINAL JUSTICE INTERNSHIP
Provides field experience in social welfare or criminal justice agencies, e.g., for children/adolescents, in residential programs, in abuse remediation, in probation, for chemical dependencies, in victim advocacy, for elderly, in prisons, for special needs populations, in court services, and for families and communities. Instructor and student will work together to determine appropriate intern placement.

Sociology (SOC)
COURSE OFFERINGS

SOC 200  Understanding Society
3.000 Credits
An introduction to the study of human groups with special attention devoted to an analysis of contemporary American society. (F,W).

SOC 201  Contemporary Social Problems
3.000 Credits
The study of major social problems with particular reference to American society. Problems such as crime, mental disorders, addiction, drug abuse, suicide, racial conflict, urban decay, pollution, population, and family disorganization are studied both from a descriptive and theoretical point of view and analyzed collectively as a manifestation of a complex, industrial society. (YR).

SOC 263  Western Culture III
3.000 Credits
Prerequisites: (HUM 262 or HIST 262) and (HUM 261 or HIST 261)
The third of four courses on Western Culture required of all honors students. Covers the period from 17th to 19th centuries. Focus in on the emergence of scientific thought, Enlightenment political theory, Romantic individualism, and the great 19th century intellectual revolutions of Darwinism, Marxism, and feminism. Materials will be drawn from literature, philosophy, political, and scientific writings of the period. (YR).

SOC 264  West Cult IV: The Modern Era
3.000 Credits
Prerequisites: HIST 365
Fourth of four courses in Western Culture required of all Honors students. Course covers period from 19th century to present. Focus will be on selected major issues of Western Civilization in the modern era: science and human values, bureaucratic and totalitarian societies, psychoanalytical thought, feminism, nihilism, existentialism. (YR).

SOC 303  Intro to Women's & Gender Stud
3.000 Credits
May not be enrolled in one of the following Classes: Freshman
This course provides an interdisciplinary overview of the key theories and topics in Women's and Gender Studies. Special attention is given to how gender intersects with class, race, nationality, religion and sexuality to structure women's and men's lives. Students are also introduced to methods of gender analysis and will begin to apply these methods to topics such as women and health, gender roles in the family, violence against women, and gendered images in the mass media.

SOC 304  Studies in Detroit Culture
3.000 Credits
This course is an attempt to define a modern cultural history of Detroit. Taught by two faculty members, the emphasis of the course will vary but the following aspects of the city's cultural history will be covered in some detail: its literature, arts, music and architecture; its social conditions and broadened American cultural context. Not open to students who have completed SOC 305 or ENGL 305 or HUM 305 or ARTH 305 or HIST 305.

SOC 306  Comparat. American Identities
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: COMP 106 or CPAS 40 or COMP 220 or COMP 270 or COMP 280
This course will confront and complicate the following key questions: what does it mean to be an American? What is American culture? Participants in this course will respond to the questions central to the American Studies field by reading and discussing historical, sociological, literary, artistic, material culture, political, economic, and other sources. Students will use this interdisciplinary study to examine the multiple identities of Americans - as determined by factors such as gender, race, class, ethnicity, and religion. While emphasizing the diversity of American culture, participants will consider some core values and ideas uniting America both in historical and contemporary society. Students will be invited to seek out and share fresh narratives of the American experience.

SOC 308  Sociological Theory
3.000 Credits
Prerequisites: SOC 200 or 201
A historical survey of the major theorists and their works from the beginnings of sociological positivism to contemporary theories. (YR).

SOC 310  Computers and Society
3.000 Credits
Prerequisites: SOC 200 or SOC 201
A sociological discussion of computers and other information technology. Starting with the larger context of technology and social change, an exploration of various forms of information technology, their history and development, their relationship to the changing social structure of a post-industrial society like 20th/21st century USA. Case studies could include "Computers and the Workplace," "Computers in Medicine," "Computers and
completed a minimum of one year of high school algebra.

SOC 350 Poverty and Inequality
3.000 Credits
Prerequisites: SOC 200 or 201

In a middle class-oriented culture, the poor experience many problems and are also considered deviant which tend to make poverty self-perpetuating. This stratum will be explored with respect to life styles, life changes, contributing factors, characteristics, individual and social consequences, and evaluation of attempted solutions. (YR).

SOC 382 Social Psychology
3.000 Credits
Prerequisites: SOC 200 or PSYC 170 or PSYC 171 or SOC 201

An introductory study of the interrelationships of the functioning of social systems and the behavior and attitudes of individuals. (YR).

SOC 383 Introduction to Statistics
3.000 Credits

Frequency distributions and descriptive measures. Populations, sampling, and statistical inference. Elementary probability and linear regression. Use of statistical computer packages to analyze data. Students electing this course should have completed a minimum of one year of high school algebra. Students can receive credit for only one of MATH 363, STAT 363, SOC 383, and STAT 325. (F,W,S).

SOC 390 Topics in Sociology
3.000 Credits

Examination of problems and issues in selected areas of sociology. Title in Schedule of Classes will change according to course content. Course may be repeated for credit when specific topics differ. (F,W).

SOC 398 Directed Readings
1.000 TO 3.000 Credits
Prerequisites: SOC 200 or SOC 201

Reading assignments in sociology. No more than a total of six credit hours of SOC 398 and SOC 498 may be applied toward concentration. Permission of instructor required. (F,W,S).

SOC 402 Genocide
3.000 Credits
Prerequisites: SOC 200 or SOC 201

Applies concepts and theories dealing with rumor, prejudice, group contagion, and mass movements to the Jewish, Armenian, and American-Indian genocides. In addition, psychological, philosophical, and political issues related to genocide are addressed. (YR).

SOC 403 Minority Groups
3.000 Credits
Prerequisites: SOC 200 or 201

The status of racial and ethnic minorities in the United States with particular reference to the social dynamics involved with regard to majority-minority relations. Topics of study include inequality, segregation, pluralism, the nature and causes of prejudice and discrimination and the impact that such patterns have upon American life. Students cannot receive credit for both SOC 403 and SOC 503. (F,W).

SOC 4045 Dissed: Differ, Power, Discrim
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Must be enrolled in one of the following classes: Senior Sophomore Freshman Junior

Have you ever been dissed? Why are some people targets of disrespect? This class examines the unequal distribution of power - social, economic, and political - in the United States and other countries that results in favor for privileged groups. We will examine a variety of institutional practices and individual beliefs that contribute to disrespect. We'll look at ways that beliefs and practices, like viewing inequality as consequence of a 'natural order', obscure the processes that create and sustain social discrimination. We will engage in the intellectual examination of systems, behaviors, and ideologies that maintain discrimination and the unequal distribution of power and resources. Students will not receive credit for both SOC 404 and SOC 504.

SOC 4075 Sexual Praxis and Theory
3.000 Credits
Prerequisites: WST 275 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or SOC 443 or PSYC 405 or ANTH 406 or ANTH 101 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

This course will offer an overview of sexual differences including: the socio-cultural construction of gender, sexual behavior, and orientation; sex and sexualities in language and literature; and diversity by race, class, and cultural heritage. These topics will enable students to understand human sexuality within and across a continuum removing notions of duality, or polarity, in sexual behaviors and orientations. Examples both from within Western society and from non-Western societies may be used to further this position. Theoretical perspectives may encompass sociological and anthropological work, literary theory and criticism, queer theory, and multi-disciplinary discussions/discourse. Texts may include: Sex and the Machine: Readings in Culture, Gender and Technology, The Anatomy of Love, The Lesbian and Gay Studies Reader, Second Skins: The Body Narratives of Transexuality, and Lesbian and Gay Marriage.

SOC 409 Feminist Theories
3.000 Credits
Prerequisites: WGST 275 or WST 275 or SOC 200 or SOC 201 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

This course examines the different perspectives that feminist theorists have offered to analyze the unequal conditions of women's and men's lives. Students taking this course will develop an understanding of how theory functions as a way to know, understand and change the world. They will also be provided with a lens for comparing the assumptions and implications of alternative theoretical perspectives. A particular emphasis of this course is on theorizing the interrelationships among gender, race, class, sexuality and nationality. Course material includes applications of feminist theory to issues such as gender identity formation; sexuality; gender, law and citizenship; women and work; and the history and politics of social movements. Student will not receive credit of both SOC 409 and SOC 509. (AY)
SOC 410  Quantitative Research  
3.000 Credits  
Prerequisites: SOC 200 or 201  
An introduction to methods of data collection and analysis. Elementary statistics data are analyzed using computerized statistics programs. A discussion of research design and the philosophy of social science is also included. Students cannot receive credit for both SOC 410 and SOC 510. (YR).

SOC 411  Program Evaluation  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: SOC 200 or PSYC 170 or 171 or POL 101 or SOC 201  
The application of social research procedures in assessing whether a human service program is needed, likely to be used, conducted as planned, and actually helps people in need. The course will cover research design and measurement as well as issues of how to get research findings utilized. Students cannot receive credit for both SOC 411 and SOC 511. (YR).

SOC 412  Men and Masculinities  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: SOC 200 or SOC 201 or ANTH 101 or WST 275 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303  
This course addresses the question, "What is a man?", in various historical, cross-cultural, and contemporary contexts. A major focus is on the social and cultural factors that underlie and shape conceptions of manhood and masculinity in America as well as in a variety of societies around the globe. (AY).

SOC 413  Qualitative Research  
3.000 Credits  
Prerequisites: SOC 308  
Qualitative research methods involve the observation and study of people in their everyday lives, in their taken-for-granted worlds. Qualitative research seeks to combine close empirical observation with analytic techniques that demand (and teach) personal and social self-consciousness as necessary to an understanding of the social worlds of "others". This course in qualitative methods is designed to acquaint students with field research theories and techniques. Students will gain hands on experience in participant observation, interviewing and the use of sociological scholarship. Qualitative Research Methods will prepare students to gather data, focus the data in a social scientific manner, analyze the data, and then organize it in reportable form.

SOC 422  Structure of American Society  
3.000 Credits  
Prerequisites: SOC 200 or SOC 201  
An analysis of the institutional structure of American society, with a view of determining the degree of its integration. Students cannot receive credit for both SOC 442 and SOC 522. (YR).

SOC 423  American Social Classes  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: SOC 200 or 201  
Stratification of American communities and society; a review of the findings of major studies and an introduction to methodology. Students cannot receive credit for both SOC 423 and SOC 523. (YR).

SOC 426  Society and Aging  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: SOC 200 or SOC 201  
Personal, interpersonal, and institutional significance of aging and age categories. Sociological dimension of aging based on social, psychological, and demographic factors. Attention to social networks and institutionalization. Students cannot receive credit for both SOC 426 and SOC 526. (YR).

SOC 430  Population Problems  
3.000 Credits  
Prerequisites: SOC 200 or 201  
Social causes and consequences of population structure and change. How variations in fertility, mortality, and migration arise and how they affect society. Illustrations from the United States and a variety of developed and underdeveloped countries. (YR).

SOC 435  Urban Sociology  
3.000 Credits  
Prerequisites: SOC 200 or 201  
A descriptive study of the form and development of the urban community with respect to demographic structure, spatial and temporal patterns, and functional organization. The relationship of city and hinterland. Social planning and its problems in the urban community. Students cannot receive credit for both SOC 435 and SOC 535. (YR).

SOC 436  Personality and Society  
3.000 Credits  
Prerequisites: SOC 200 or 201  
Deals with the forms and modes of change of personality, social structure, and culture; examines their interactions with body/population, niche/environment, and technology. (YR).

SOC 439  Sociology of Professions  
3.000 Credits  
Prerequisites: SOC 200 or 201  
Course begins with a review of the sociological literature on the professions. It will then focus on the medical, legal, and business/managerial professions as case studies of the development of professions in post-industrial society. Intrinsic to the definition of profession is "autonomy." The course will explore what is happening to professions and professional autonomy in highly bureaucratized and corporatized societies, where we speak of deprofessionalization and proletarianization of professions. (YR).
An analysis of health and illness behavior from the point of view of the consumer, as well as of medical professionals, the structure, strengths, and weaknesses of the medical care delivery system in the U.S., the impact of culture and personality on illness behavior, and a study of the institution of medicine and activities of health care professionals. Students cannot receive credit for both SOC 440 and SOC 540. (F,W,S)

SOC 441 Sociology of the Auto Industry
3.000 Credits
Prerequisites: SOC 200 or 201
The American auto industry is examined in its relationship to the economic and political structures of 20th-century United States. This includes a focus on the social history of the industry as well as a discussion of the nature of auto work. Proposals for changing social relations at work are also examined. Concludes with an examination of the impact of the industry on a local community (Detroit). Students cannot receive credit for both SOC 441 and SOC 541. (F,W)

SOC 442 Sociology of Work
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
Study of work roles in modern society. The impact of industrialization, professionalization, and unionization on the conditions of work, worker motivation, and job satisfaction. Career choice processes and career patterns, occupational status and prestige, and occupational associations are among the topics considered. Students cannot receive credit for both SOC 442 and SOC 542. (YR)

SOC 443 Gender Roles
3.000 Credits
Prerequisites: SOC 200 or PSYC 170 or PSYC 171 or SOC 201
This course will investigate the development of gender roles in childhood and adolescence due to either innate physiological differences or sociological patterning, the effect of gender roles upon male-female relationships within our society, and the possibility of transcending sociological gender roles in alternate modes of living. Students cannot receive credit for both SOC 443 and SOC 543. (YR)

SOC 444 The Medical Profession
3.000 Credits
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: SOC 200 or POL 201
Professions are the hallmark of modern society, and the medical profession is a prototype of what is meant by a profession. This course will examine the nature and history of the American medical profession, how it developed and changed since the early 1800's. What is the nature of the profession today? What social forces have shaped it? What does the future hold? These are some of the questions the course will address. (W).

SOC 445 The Family
3.000 Credits
Prerequisites: SOC 200 or 201
The family as an institution shaped by other aspects of society, as a social system with its own dynamics, and as a primary group affecting the lives of its members. Historical and contemporary materials from the United States and other cultures. Students cannot receive credit for both SOC 445 and SOC 545. (F,W,S).

SOC 446 Marriage and Family Problems
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or 201
Sociological analysis of problems encountered within the institution of marriage with particular reference to such issues as choosing a marriage partner, sexual adjustment, occupational involvement, conflict resolution, child rearing, divorce and readjustment. Students cannot receive credit for both SOC 446 and SOC 546. (YR)

SOC 447 Family Violence
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or SOC 301 or SOC 443 or PSYC 405 or WST 405 or SOC 201
Sociological analyses of various forms of family violence which occur disproportionately in the lives of girls and women. Topics such as incest, sexual abuse, date rape, wife battering, and elder abuse will be situated within the social and cultural context of contemporary gender relationships. Social and political responses to the phenomena will be examined. Students cannot receive credit for both SOC 447 and SOC 547. (YR)

SOC 448 Comparative Health Care Sys
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or SOC 201
An introduction and overview of the English, Swedish and People's Republic of China health care systems. Focus on cultural context and other organizational characteristics, unique features, approaches and ability to solve problems. Emphasis on how the three systems help us understand the American health care system. Students cannot receive credit for both SOC 448 and SOC 548. (YR).

SOC 449 Black Family in Contemp Amer
3.000 Credits
Prerequisites: SOC 200 or 201
The African-American family is examined in relationship to the historical and contemporary forces that have shaped its characteristic patterns of family life. These forces include the influence of slavery, urbanization, racial discrimination and urban poverty. The patterns of family life include parental roles, family structure, kinship relations, and gender roles. (YR).

SOC 450 Political Sociology
3.000 Credits
Prerequisites: SOC 200 or SOC 201
Examines how society effects the distribution and exercise of power through analyzing linkages between power, participation, and perspectives. Studies of political participation and social organization, ideology and social conflict, as well as political socialization, represent some of the major parameters. Students cannot receive credit for both SOC 450 and SOC 550. (YR)
SOC 452  Marxism  3.000 Credits  Prerequisites: SOC 200 or POL 101 or ECON 201 or ECON 202 or SOC 201  This survey of Marxist and neo-Marxist thought discusses philosophy, economic history, and socialism. Topics include Marx's view of the nature of man, class conflict, the dialectic in history, the labor theory of value, monopoly capital and imperialism. Problems of socialist societies such as economic development and rule of elites will also be discussed. (AY).

SOC 453  Sociology of Law  3.000 Credits  Must be enrolled in one of the following Levels: Undergraduate  Prerequisites: SOC 200 or 201  Various aspects of the relationship between law and society are explored. After a look at processes of law making, attention is turned to the administration of law. This involves a study of the activities of legislatures, courts, police, and correctional agents. Students cannot receive credit for both SOC 453 and SOC 553. (YR)

SOC 454  Mental Health and the Law  3.000 Credits  Must be enrolled in one of the following Levels: Undergraduate  Prerequisites: SOC 200 or SOC 201  Courts and legislatures now control much of the work of mental health professionals such as social workers, counselors, therapists, and psychologists. This course looks at problems encountered in putting the laws and policies into effect. These implementation problems are much the same in other areas of government action, such as poverty programs and pollution control. Students cannot receive credit for both SOC 454 and SOC 554. (YR)

SOC 455  Sociology of Religion  3.000 Credits  Must be enrolled in one of the following Levels: Undergraduate  Prerequisites: SOC 200 or 201  Religion as a social institution; its purposes, methods, structure, and beliefs, and its relation to other institutions. Students cannot receive credit for both SOC 455 and SOC 555. (YR)

SOC 4555  Immigrant Cultures and Gender  3.000 Credits  Must be enrolled in one of the following classes: Senior  Junior  Prerequisites: ANTH 101 or WGST 303 or SOC 200 or SOC 201  The history and culture of immigration since 1850, including (1) formation and perseverance of immigrant communities and interethic boundaries; (2) relations between the homeland and the immigrant; and (3) impact of migration on family life and gender roles.

SOC 456  Health Care and the Law  3.000 Credits  Must be enrolled in one of the following classes:  Senior  Graduate  Prerequisites: SOC 200 or SOC 201 or POL 364  A sociological study of legal issues in health care, including regulation of hospitals, consent for treatment, confidentiality, experimentation, family planning, children's rights, access to health care. The emphasis will be on the organizational and personal consequences of legal requirements. Junior/Senior standing is a requirement. Students cannot receive credit for both SOC 456 and SOC 556. (AY).

SOC 457  Family, Aging and the Law  3.000 Credits  Prerequisites: SOC 200 or SOC 201  The law exerts a powerful impact on the family and the elderly. This course interprets the effects of laws concerning guardianship, competence, nursing home regulation, marriage, divorce, custody, adoption, abortion, and child sexual abuse.

SOC 458  Sociology of Education  3.000 Credits  Must be enrolled in one of the following Levels: Undergraduate  Prerequisites: SOC 200 or SOC 201  Education as a social institution; its purposes, methods, structure, and philosophy, and its relation to other institutions, particularly in the urban setting. Students cannot receive credit for both SOC 458 and SOC 558. (YR)

SOC 460  America in a Global Society  3.000 Credits  Prerequisites: SOC 200 or 201  Social changes in America are studied from an internal and an external perspective. The internal dynamics of social change emphasize the role of social movement, e.g., the impact of the civil rights movement on American culture and politics. The external perspective sees America as part of a changing global society. The development of the capitalist world system from its origin in Western Europe to its present global reach is examined. Contemporary American social problems are examined in relation to America's position in a rapidly changing world. Students cannot receive credit for both SOC 460 and SOC 560. (AY)

SOC 461  Cops & Cons: Women in Prison  3.000 Credits  Must be enrolled in one of the following classes: Senior  Junior  Prerequisites: SOC 200 or SOC 201 or WST 275 or WGST 275 or CRJ 240 or CRJ 300 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303  Course uses contemporary theories of gendered organizations to frame analyses of prison policies and practices in employment and incarceration as they reflect and reproduce gender inequalities. Analyses will be framed within a restorative justice model, that is, a critique of the current criminal justice system of retributive justice and a paradigm of what an alternative system could be.

SOC 465  Deviant Behavior/Soc Disorganz  3.000 Credits  Must be enrolled in one of the following Levels: Undergraduate  Prerequisites: SOC 200 or 201  A general analysis of the concept of social deviance and social disorganization: factors producing each condition, the effects of social control measures on the course of deviance and
disorganization consequences for the social system, and the relationship between the two. Students cannot receive credit for both SOC 465 and SOC 565. (YR)

SOC 466  Drugs, Alcohol, and Society  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: SOC 200 or 201  
Analyzes the sociology of substance use and abuse. Provides a sociological framework for understanding issues and evaluating our nation's responses to the phenomenon of drug use. Drawing on sociocultural and social psychological perspectives, this course systematically examines the social structure, social problems, and social policy aspects of drugs in American society. Prerequisite or permission of instructor. (YR).

SOC 467  Drugs, Crime, and Justice  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: SOC 200 or 201  
Provides a comprehensive analysis of the current state of research on interactions between crime and drug use. Examines drug distribution, organization of drug systems, and mechanisms of social control of drug systems. Analyzes the social problems associated with drugs and crime. The course also focuses on drug-law enforcement and public policy strategies for dealing with drugs and crime. Prerequisite or permission of instructor. (YR).

SOC 469  Juvenile Delinquency  
3.000 Credits  
Prerequisites: SOC 200 or 201  

SOC 473  Race, Crime and Justice  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: SOC 200 or 201  
This course is an analysis of race and its relation to crime in the criminal justice system. Students will analyze and interpret the perceived connection between race and crime, while exploring the dynamics of race, crime, and justice in the United States. This course is designed to familiarize students with current research and theories of racial discrimination within America's criminal justice system.

SOC 475  Diversity ISS in Mental Health  
3.000 Credits  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: WGST 303 or ANTH 303 or HUM 303 or SOC 303 or PSYC 303 or WGST 336 or HPS 336  
Diversity Issues in Mental Health explores varied cultural descriptions and models of mental illness. By focusing on the ways that culture shapes how people experience, and respond to, mental illness this class explores cultural representations of mental illness, ranging from discrete illness resulting from a chemical imbalance to a profound threat to order. We seek to understand the cultural, personal, and political underpinnings of mental illness and medical practices in societies throughout the world. The course utilizes an interdisciplinary perspective, drawing from multiple sources of information regarding mental health issues, including feminism, psychiatry, history, sociology, and literature. Issues raised throughout the course include the ways gender, race, culture, religion, and stigma influence the diagnosis of mental illness, patterns of help-seeking behavior, formation of comprehensive mental health policy, and treatment options.

SOC 476  Inside Out Prison Exchange  
4.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
This community-based course, taught in a local correctional facility, brings university students and incarcerated students together to study as peers. Together students explore issues of crime and justice, drawing on one another to create a deeper understanding of how these issues affect our lives as individuals and as a society. The course creates a dynamic partnership between UMD and a correctional facility to allow students to question approaches to issues of crime and justice in order to build a safer and more just society for all. The course encourages outside (UMD) students to contextualize and to think deeply about what they have learned about crime and criminals and to help them pursue the work of creating a restorative criminal justice system; it challenges inside students to place their life experiences into larger social contexts and to rekindle their intellectual self-confidence and interest in further education.

SOC 477  Social Welfare  
3.000 Credits  
Prerequisites: SOC 200 or 201  
The practice of social work is examined within the context of the development of the social service professions and welfare institutions in American society. Social welfare is a concept that encompasses the provision of material resources, as well as regulation and protection of clients. Changes in welfare policy are analyzed in relationship to other institutional changes in American society. (YR).

SOC 478  Social Work Internship  
3.000 TO  6.000 Credits  
Prerequisites: SOC 200 or 201  
Provides field experience in social welfare or criminal justice agencies, e.g., for children/adolescents, in residential programs, in abuse remediation, in probation, for chemical dependencies, in victim advocacy, for elderly, in prisons, for special needs populations, in court services, and for families and communities. Supervision by approved field instructors. An internship of 80 hours is required for three (3) credits. Instructor and student will work together to determine appropriate intern placement. Approval of instructor is required. (OC).

SOC 479  Comparative Hlth Systems: Trip  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: SOC 200 or SOC 201
A unique combination of lectures, field trips, visits with general practitioners, specialists, hospital observations, talks with health policy planners, researchers, and many others. Personal experience in two health care systems. Permission of instructor. Junior/Senior standing required. Students cannot receive credit for both SOC 479 and SOC 579. (AY).

**SOC 481**  Gender and Globalization  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Arts, Sciences & Letters  
May not be enrolled in one of the following Classes:  
Sophomore  
Freshman  
Prerequisites: ANTH 303 or HUM 303 or SOC 303 or PSYC 303 or WGST 303

Mass media, politics, and academia are full of references to globalization, and a future "world without borders." This interdisciplinary course considers the implication of globalization for women's lives, gender relations, and feminism. Topics covered include the global factory, cross-cultural consumption, human rights, global communications, economic restructuring, nationalism, and environmental challenges. Rather than survey international women's movements, this course explores how globalization reformulates identities and locations and the political possibilities they create. (AY).

**SOC 482**  Methods of Social Work Pract  
3.000 Credits  
Prerequisites: SOC 200 or 201

Examination of social work practice methods and approaches to social problems, contexts of practice and targets of change. Focus is on knowledge and skills each practice method requires to effect personal and social change. (YR).

**SOC 483**  Images of Organizations  
3.000 Credits  
Prerequisites: SOC 200 or SOC 201

Formal bureaucratic organizations such as government agencies, hospitals, and colleges are a distinctive feature of modern industrialized societies. Analysis of types of formal organizations, their goals, structure, and consequences for intra- and inter-organizational behavior helps to understand how to deal with a complex world. Students cannot receive credit for both SOC 483 and SOC 583. (YR).

**SOC 484**  Violence Against Women  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: SOC 200 or SOC 201 or WGST 303 or HUM 303 or PSYC 303 or ANTH 303 or SOC 303 or WGST 375 or HUM 275 or PSYC 275 or SOC 275 or ANTH 275 or WST 275

Course examines local and global social violence against women outside family and other intimate relationships. Students consider violations against women's human rights through the life cycle, which are often sanctioned under the guise of cultural practices and misinterpretations of religious tenets. Topics include sex-selective abortion and female infanticide (the "missing millions"); female genital mutilation and cosmetic surgeries; prostitution and pornography; trafficking in women; sexual harassment; and women's experiences of war as soldiers, non-combatants and refugees. Topics are "paired", that is, students compare understandings of Western and non-Western social practices related to gender. Students examine both institutionalized sexism and racism, as part of political, economic, and social systems, and sexism and racism as realities affecting individual women's lives.

**SOC 490**  Advanced Topics in Sociology  
3.000 Credits  
Examination of problems and issues in selected areas of sociology. Title as listed in the Schedule of Classes will change according to content. Course may be repeated for credit when specific topic differs.

**SOC 497**  Senior Research Seminar  
3.000 Credits  
Prerequisites: SOC 410

This course is intended as the culmination of a student's prior work in sociology. Each student will conduct an applied research project that draws upon sociological concepts and issues. The product of this research will be an essential component of the student's concentration portfolio.

**SOC 498**  Independent Study  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: SOC 200 or 201

Analytical assignments in sociology. No more than a total of six credit hours of SOC 398 and SOC 498 may be applied toward concentration. Permission of instructor required. (F,W,S).

**Spanish**  
(see Hispanic Studies)

**Speech (SPEE)**  
(not a field of concentration; see Communications)

**COURSE OFFERINGS**

**SPEE 101**  Principles of Speech Comm  
3.000 Credits  
Consideration of the basic elements of effective interpersonal, small group, and public communication. Designed to give the student increased self-confidence through practical experience in presenting speeches, with emphasis on delivery skills and training in the skills of analysis, organization, development, and adaptation of ideas. (F,W).

**SPEE 310**  Interpersonal Communication  
3.000 Credits  
Prerequisites: SPEE 101

Course adopts a discussion and activities-centered approach to understanding and applying principles and methods associated with successful interpersonal communication. Students will
study and refine the communication of relationship in dyadic settings as it is influenced by cultural and gender differences. Non-verbal variables, listening, and assertive communication are just a few of the areas of discourse that will be studied in relationship to expanding cultural and gender awareness.

SPEE 320  Public Argument and Advocacy  
3.000 Credits  
Prerequisites: SPEE 101

Students gain perspectives and experience as both critical consumers and informed producers of public discourse. Students will become familiar with basic theories of rhetorical action, engage in critical analysis of varied public arguments and rhetorical events, and prepare speeches of advocacy intended for both real and imagined audiences. (AY).

SPEE 330  Argumentation and Debate  
3.000 Credits  
Prerequisites: SPEE 101

This course covers the logical and legal foundations of the argumentation process. Offers practical and theoretical experience in analysis, reasoning, case-building, evaluation of evidence, refutation, and cross-examination. (AY).

SPEE 340  Theories of Persuasion  
3.000 Credits  
Prerequisites: SPEE 101

A study of the theories of persuasion. Consideration will be given to the psychological appeals and logical reasoning skills that secure the acceptance of ideas, attitudes, values, and beliefs. This course provides practical experience in persuasive speaking as well as theoretical analysis of representative persuasive speaking. (AY).

SPEE 399  Independent Studies in Speech  
1.000 TO 3.000 Credits

Readings or analytical assignments in speech in accordance with the needs and interests of those enrolled and agreed upon by the student and advising instructor. (F,W).

SPEE 400  Speech Skills for Professional  
3.000 Credits  
May not be enrolled in one of the following Classes: Graduate  
Prerequisites: SPEE 101

Course concentrates on aspects of organizational communication theory and specific speech skills useful for professionals in education, government, business and industry. Representative topics include formal and informal presentations, interviewing, dealing with media and public; audience analysis, use of graphics, negotiation and conflict resolution, non-verbal skills, listening, instructional techniques. Students cannot receive credit for both SPEE 400 and SPEE 500. (OC).

SPEE 430  Small Group Communication  
3.000 Credits  
May not be enrolled in one of the following Classes: Graduate  
Prerequisites: SPEE 101

A survey of small group behavior from the perspectives of theory, research, and practice. Activities and discussion will emphasize skills in leadership, problem solving, policy making, and the development of consensus. Students cannot receive credit for both SPEE 430 and SPEE 530. (AY).

SPEE 442  20th Century Public Argument  
3.000 Credits  
Prerequisites: SPEE 101

This class is a survey of American public address in the 20th century. Students will examine and critically analyze several of the most significant speeches and rhetorical movements of the last one hundred years. Through lectures, discussions, and analysis of speeches and other artifacts, we will focus on the relationship between rhetoric and history, and how theories of rhetorical action help us appreciate the role of discourse in the effective functioning of a democratic system. Students will learn to utilize several critical perspectives as a means of understanding both historical and contemporary political discourse. (W).

Statistics (STAT)  
(minor only, see Applied Statistics)

Swedish  
(not a field of concentration, see Modern and Classical Languages)

Urban and Regional Studies

Urban and Regional Studies (URST) encompasses the environmental, aesthetic, social, economic, geographic, historical, political, and cultural aspects of cities, suburbs and regions. It advances in-depth study of some of the major challenges facing individuals and groups living and working in major metropolitan regions, such as the Detroit area. These challenges include:

- Economic development
- Urban poverty and income inequality
- Preservation and promotion of culture, architecture and art
- Land use conflicts
- Provision of adequate and sustainable transportation and housing services.

Career Opportunities

Urban and Regional Studies provides students with the knowledge, techniques and critical analytical skills that will enable them to effectively participate in changing cities and regions.

Pursuing a degree in Urban and Regional Studies at UM-Dearborn offers you the opportunity to combine real-world practice and theory. Students can specialize in areas such as urban and regional policy, community development, urban design and the environment.

Graduates of this program may consider careers in urban/regional planning, community organizing, non-profit management, public policy/administration, social services, and arts and culture management. They may also consider pursuing graduation education and research in areas such as geography, urban planning, sociology, anthropology, environmental studies, public policy and public administration.

The Major

The program is interdisciplinary by design, meaning that courses draw upon a variety of traditional academic disciplines – e.g. history, English, geography, economics, sociology and anthropology. Students are encouraged to rigorously and creatively integrate the theory and methods learned in these courses. In addition, a unique feature of the program is that students gain hands-on experience by working in the community through an internship, academic service learning and/or community-based research.
Requirements

- URS 300 – Urban and Regional Studies: Theory and Practice (3 credit hours)
- 12 credit hours in one of the three tracks
- 12 credit hours from the other two tracks
- 6 credit hours of academic-based community research satisfied through any combination of the following:
  - Internship (students may elect to participate in any CASL Internship program with approval from their faculty advisor and the Internship Program Director)
  - Independent Study (3 credits of which can also be used to satisfy the credit requirements in a single track, with the approval of the program faculty director)
  - Designated approved 300/400, 3000/4000 level academic service learning (ASL) courses – see Civic Engagement website www.umd.umich.edu/678201/ and www.umich.edu/694936.
- URS 450 – Senior Capstone in Community Research (3 credit hours)

THREE SPECIALIZATION TRACKS

TRACK I: URBAN PROBLEMS AND POLICY
ECON 305 Economic Statistics
ECON 325 Economics of Poverty and Discrimination
ECON 482 Regional Economics
ECON 483 Urban Economics
POL 313 American State Government
POL 322 Government of Michigan
POL 323 Urban Politics
POL 334 Community Organizing and Leadership
POL 360 American Policy Process
POL 4605 Science, Tech & Pub Policy
POL 466 Politics & Policies Soc Welfare
POL 489 Seminar in Urban Politics
SOC 350 Poverty and Inequality
SOC 403 Minority Groups
SOC 435 Urban Sociology
SOC 441 Sociology of the Auto Industry
SOC 473 Race, Crime and Justice
STAT 363 Introduction to Statistics

TRACK II: COMMUNITY DEVELOPMENT, CULTURE, HISTORY
AAAS 368 Black Exp in U.S.-1865-Present
AAAS 389 Odyssey of Black Men in America
AMST 300 Comparative American Identities
ANTH 340 Race and Evolution
ANTH 376 Power & Privilege in Southeast Michigan
ANTH 455 Immigrant Cultures and Gender
ARTH 426 City of Ancient Rome
COML 355 Urban Voices: France and Italy
ENGL 356 Reading Urban Monstrosity
ECON 361 US Economic History
HIST 3601 Michigan History
HIST3665 Automobile in American Life
HIST 3695 American City
HIST383 Labor in America
SOC 304 Studies in Detroit Culture
SOC 4045 Dissed: Difference, Power, Discrimination
SOC 423 American Social Classes
SOC 449 Black Family in Contemporary America
SOC 458 Sociology of Education

TRACK III: ENVIRONMENT, DESIGN AND SPACE
ANTH 345 Cultural Ecology and Evolution
ARTH 365 Modern Architecture
ARTH 375 Urban Design Perspectives
ESCI 305 Intro to GIS and Cartography
ENST 301 Concepts of Environmentalism
ENST 325 Environmental Politics
ENST 330 Land Use Planning and Mgmt
ENST 340 Remote Sensing
ENST 456 Ecological Economics
GEOG 300 Urban Geography
GEOG 310 Economic Geography
HIST 374 History of Industrial Technology

COGNATES
Six credit hours of upper-level (300/400; 3000/4000 level, excluding MATH 385, 386, 387) coursework in a single discipline, in addition to any courses already elected in that discipline used to satisfy urban and regional studies requirements. Cognate courses will provide supporting skills or contexts for the study of urban issues. Internships in these disciplines will not be used to satisfy the cognate requirement.

NOTES:
1. At least 18 of the 36 upper level hours required in the major must be elected at UM-Dearborn.
2. In satisfying the academic based community research requirement, students must obtain approval of the URST faculty program advisor for internships, independent study, and “other” approved forms of academic service learning, prior to enrolling in the courses. Courses already designated as academic service learning (ASL, 300/400; 3000/4000 level only) do not require approval. ASL courses vary by semester.

MINOR OR BGS/LIBS AREA OF FOCUS
URST is also available as a minor, or as an area of focus in General Studies or Liberal Studies. The minor/area of focus requires 15 credit hours of upper level coursework including URS 300 and at least one course from each of the three tracks.

Urban and Regional Studies (URS)

COURSE OFFERINGS

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>URS 300</td>
<td>Urban and Regional Studies</td>
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<td>3.000</td>
<td>Credits</td>
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In this course we will explore the field of urban and regional studies. The scope of readings is inter-disciplinary, spanning the environmental, aesthetic, social, economic, geographic, historical, political and cultural aspects of cities, suburbs and regions. The interrelationship between the spatial organization of a city, patterns of social and economic inequality, delivery of services, the relationship between culture and public space, as well as the processes of urban and regional change will all be considered. Problems such as race and class inequality will also be examined. Special attention will be given to issues of relevance in the Detroit metropolitan region (e.g. spatial, economic, cultural, political and social impacts of the loss of manufacturing jobs). Students will be introduced to methods of social scientific analysis and will begin to apply those methods to researching urban and regional community groups, enterprises and social movements.
Women's and Gender Studies

Global women’s poverty, gender-based violence and other forms of discrimination have made gender equity one of the central moral challenges of our century. Women’s and Gender Studies offers an interdisciplinary major and minor designed to provide students with an understanding of gender as a category of analysis that intersects with race, class, sexual identity, religion and (dis)ability, and the tools to lead for gender equity and social justice. Faculty who teach in the program are committed to critical thinking, student mentoring, active learning, and the application of theory to practice through social change opportunities on campus, in metropolitan Detroit, and beyond.

Women’s and Gender Studies prepares students for a variety of careers. Our graduates have gone on to work in fields of health, social work, law, politics and government, education, business, science, and the arts. Working closely with an advisor from the program, students devise a course of study tailored to meet their specific needs and interests. Many of our students graduate with a double major with fields such as Psychology, Behavioral Sciences, Health Policy Studies, Economics, History and Anthropology. For more information see our website at http://www.casl.umd.umich.edu/wgst/

REQUIREMENTS

A major requires 30 credit hours in Women’s and Gender Studies:

- WGST 303 Introduction to Women’s and Gender Studies (3 credit hours)
- Either WGST 384 Feminist Philosophies or WGST 409 Feminist Theories
- 6 credit hours in Gender, Culture and Representation courses
- 6 credit hours in Gender and Social Institutions courses
- 9 credit hours of coursework in 300/3000; 400/4000 level WGST courses
- 3 credit hours of a capstone experience satisfied through any combination of the following:
  - Internship (students may elect to participate in any CASL Internship program with approval from the director of WGST and the Internship Program Director)
  - WGST 498 Women’s and Gender Studies thesis
  - Or other approved form of capstone learning experience by petition.

Gender, Culture, and Representation Courses:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WGST 315</td>
<td>Body Image and Culture</td>
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<tr>
<td>WGST 335</td>
<td>Women in Medieval Art</td>
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<tr>
<td>WGST 337</td>
<td>Women as Musicians in Western Music History</td>
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<td>WGST 385</td>
<td>Gender Differences in Language</td>
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<td>WGST 386</td>
<td>Gender Issues in Literature</td>
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<td>WGST 387</td>
<td>Film and Feminisms</td>
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<td>WGST 401</td>
<td>Images of Women in Germany</td>
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<td>WGST 406</td>
<td>Culture and Sexuality</td>
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<td>WGST 407</td>
<td>Sexual Praxis and Theory</td>
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<td>WGST 425</td>
<td>Women in Classical Antiquity</td>
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<td>WGST 433</td>
<td>Writing Women in Renaissance</td>
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<td>WGST 445</td>
<td>20c/21c Women Authors</td>
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<td>WGST 455</td>
<td>Gender and Media Studies</td>
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<td>WGST 470</td>
<td>Voices of Black Women in Film, Music, Literature</td>
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<td>WGST 471</td>
<td>Sexual Subcultures in Literature</td>
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<td>WGST 473</td>
<td>Arab American Women Writers</td>
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<td>WGST 486</td>
<td>Queer Theory and Literature</td>
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<td>WGST 487</td>
<td>Monsters, Women and Gothic</td>
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<td>WGST 4555</td>
<td>Immigrant Cultures and Gender</td>
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Gender and Social Institutions Courses:

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<tbody>
<tr>
<td>WGST 325</td>
<td>Gender and Science</td>
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<tr>
<td>WGST 326</td>
<td>Economics of Poverty and Discrimination</td>
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<tr>
<td>WGST 336</td>
<td>Perspective’s in Women’s Health</td>
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<td>WGST 338</td>
<td>Women and Islam in Middle East History</td>
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<td>WGST 362</td>
<td>Women, Politics, and the Law</td>
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<td>WGST 370</td>
<td>Women in America: Historical Perspective</td>
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<td>WGST 404</td>
<td>Dissed: Difference, Power and Discrimination</td>
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<td>WGST 405</td>
<td>Gender Roles</td>
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<td>WGST 408</td>
<td>Gender, Power and International Development</td>
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<td>WGST 412</td>
<td>Men and Masculinities</td>
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<td>WGST 420</td>
<td>Kinship and Marriage</td>
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<td>WGST 446</td>
<td>Marriage and Family Problems</td>
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<td>WGST 447</td>
<td>Family Violence</td>
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<td>WGST 461</td>
<td>Cops and Cons: Women in Prison</td>
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<td>WGST 3651</td>
<td>Women, Leadership and Social Change</td>
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<tr>
<td>WGST 3955</td>
<td>Diversity in the Workplace</td>
</tr>
<tr>
<td>WGST 4505</td>
<td>Feminism and the Modern Middle East</td>
</tr>
</tbody>
</table>

COGNATES

Six credit hours of upper-level (300/400; 3000/4000 level) coursework in a single CASL discipline. Excluding courses in Women’s and Gender Studies or cross-listed courses with Women’s and Gender Studies, and MATH 385, 386, 387. Cognate courses will provide supporting skills for the study of women and gender. Internships will not be used to satisfy the cognate requirement.

URS 390 Topics Urban & Regional Studies

3.000 Credits

Problems and issues in selected areas of urban and regional studies. Title as listed in Schedule of Classes changes according to content. Course may be repeated for credit when specific topic differs.

URS 450 Sr Capstone in Community Rsrch

3.000 Credits

The capstone course is designed to assist students in integrating the concepts, theories, and methods of inquiry or urban studies into research for or in the surrounding metropolitan area. Open to students in urban and regional studies who have completed their community-based learning requirement for the concentration.

URS 499 Independent Study

3.000 Credits

Readings, community-based research and analytical assignments in accordance with the needs and interests of the student and approval of the instructor. Students must submit a written proposal of study for approval. In addition, students electing to take this course in partial fulfillment of their community-based research must get approval from the Director of the Urban and Regional Studies program. (F,W,S)
NOTES:
1. A maximum of 44 hrs. in WGST may count in the 120 hours required to graduate.
2. At least 15 of the 30 upper level hours required in WGST must be elected at UM-Dearborn.

MINOR OR BGS/LIBS AREA OF FOCUS/CERTIFICATE IN WOMEN'S AND GENDER STUDIES

WGST is also available as a minor or as an area of focus in General Studies or Liberal Studies. The minor/area of focus requires 15 credit hours of upper level coursework including WGST 303, Introduction to Women’s and Gender Studies.

Students who have completed this requirement, along with post-baccalaureate students who complete the 15 credits for the minor, will obtain a certificate in WGST. The certificate provides students with a credential that is widely recognized in the field. For more information about the post-baccalaureate certificate, contact the Director, Office of Women's and Gender Studies, 2040 CB. (313) 593- 4591 or on the web at http://www.casl.umich.edu/wgst/

Women’s and Gender Studies (WGST)

COURSE OFFERINGS

WGST 303 Intro to Women's & Gender Stud
3.000 Credits
May not be enrolled in one of the following Classes: Freshman

This course provides an interdisciplinary overview of the key theories and topics in Women's and Gender Studies. Special attention is given to how gender intersects with class, race, nationality, religion and sexuality to structure women's and men's lives. Students are also introduced to methods of gender analysis and will begin to apply these methods to topics such as women and health, gender roles in the family, violence against women, and gendered images in the mass media.

WGST 315 Body Image and Culture
3.000 Credits
Prerequisites: ANTH 101 or WST 275 or WGST 275 or WGST 303 or PSYC 275 or ANTH 275 or HUM 275 or PSYC 303 or ANTH 303 or SOC 303 or HUM 303 or SOC 275

This course examines the biological and sociocultural construction of body image in both men and women. We explore such cultural and social practices as nudity, tattooing, piercing, scarification, dietary habits, physical activity and sports performance and their associated myths and realities. We explore how the human body is a terrain of contested meaning within society. The course provides an examination of the causes and consequences of women's poor body image, contemporary and historically. Course materials include case studies from North America, Europe, Africa, Asia and the Pacific.

WGST 325 Gender, Science, & Engineering
3.000 Credits

Explores some of the history of women in science and engineering, the current status of women in science and engineering, and feminist theory in research. Topics include cultural influences on women in science and engineering, careers and life balance, and a feminist approach to scientific and engineering teaching and research. Discussion, lecture OR hybrid OR online.

WGST 326 Poverty and Discrimination
3.000 Credits
Prerequisites: ECON 201 and ECON 202

An analysis of the economic aspects of poverty and discrimination. Emphasis on the theoretical economic causes of poverty and the economic bases for discriminatory behavior, the impact of poverty and discrimination on individuals and society and the effect of reform policies on the two problems.

WGST 333 Women in Medieval Art
3.000 Credits
Prerequisites: ARTH 101 or ARTH 102 or ARTH 103 or ARTH 104 or ARTH 106 or WGST 275 or WGST 303 or HUM 275 or HUM 303 or ANTH 275 or ANTH 303 or PSYC 275 or PSYC 303 or SOC 275 or SOC 303 or WST 275

Women have often been regarded as the second sex of the middle ages due to the misogynistic attitudes of that era. Recent scholarship, however, has unearthed a significantly more complex picture. Through a study of visual representations of women in medieval art, this course will examine women's roles in the creation and patronage of art and literature, economic and family issues, and women's participation in new and innovative forms of religious piety.

WGST 335 Women Musicians/West Mus Hist
3.000 Credits

Prerequisites: MHIS 100 or MHIS 120 or MHIS 130 or MTHY 100 or WGST 275 or PSYC 275 or HUM 275 or SOC 275 or ANTH 275 or WGST 303 or ANTH 303 or SOC 303 or PSYC 303 or HUM 303 or WST 275

Through a historical survey of female musicians from the Middle Ages to the present day, this course takes a critical look at theories of creativity and professionalism as they relate to female musical production. The course deals with women in European "art music" traditions and also in jazz and popular music. Social and cultural norms dictating appropriate female involvement with music are examined. The historical approach will serve to reveal ways in which terms such as professionalism and virtuosity have continually shifted and changed in reference to female musical performance. The course challenges students to re-think many of the commonly accepted gender-based descriptions of particular genres and elements of music through listening and musical analysis.

WGST 338 Women & Islam Mid East to 1900
3.000 Credits

This course covers the historical development of Islam’s normative stance towards women and gender roles in the Middle East from the rise of Islam to the earliest stirrings of feminist activism.
WGST 362  Women, Politics, and the Law  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Arts, Sciences&Letters  
An examination of the political behavior of women in American politics. Included is an analysis of the legal and legislative demands of American women.

WGST 3651 Women/Leadership/Social Change  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: ANTH 303 or SOC 303 or HUM 303 or ANTH 275 or PSYC 275 or SOC 275 or HUM 275 or HIST 112 or WGST 275 or WST 275 or PSYC 303  
The purpose of this seminar is to examine women's leadership in movements for social change. We will approach this topic through the study of historical examples, drawn primarily from the twentieth-century United States, and including movements for economic justice, race relations, sexual identity, peace, gender equality, public health and social welfare.

WGST 370  Women in America-Hist Perspect  
3.000 Credits  
A survey of American women's history from the colonial period to the present. Among the topics included are family roles, women's economic status, women's education and women in American political life.

WGST 384  Feminist Philosophy  
3.000 Credits  
Prerequisites: PHIL 100 or WGST 275 or WGST 303 or HUM 275 or ANTH 275 or PSYC 275 or SOC 275 or WST 275 or HUM 303 or ANTH 303 or PSYC 303 or SOC 303  
Feminists working in philosophy, most notably in the 19th and 20th centuries, have altered the traditional philosophical canon by first, recovering women philosophers who were essentially erased from the history and secondly, by extending and contributing to the standard questions of philosophy. For example, one central question of philosophy; "What can we know with certainty?" has been transformed through a feminist lens and reinterpreted as "What does one's gender, social location and cultural framework contribute to what one knows?" In this course we will look at the variety of feminist philosophical theories with a focus on epistemology, metaphysics and ethics.

WGST 385  Gender Differences in Language  
Prerequisites: LING 280 or LING 281  
Examines theories of differences between male and female speakers of English, focusing on phonological, syntactic, semantic, stylistic and conversational features, with analyses of differences in speaking strategies and agendas of male and female speakers, as well as split-language situations in the workplace, home and social settings.

WGST 386  Gender Issues in Literature  
3.000 Credits  
Prerequisites: ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 200  
A study of gender issues in English and American Literature. The exact topic will vary from semester to semester, but the course may feature such topics as gay and lesbian literature, feminist criticism, images of masculinity, the representation of sexual ideologies, etc. Course may be repeated for credit when specific topics differs.

WGST 387  Film and Feminisms  
3.000 Credits  
Prerequisites: JASS 248 or WGST 275 or ANTH 275 or PSYC 275 or SOC 275 or WGST 303 or ANTH 303 or PSYC 303 or SOC 303 or WST 275 or HUM 240 or ENGL 240 or FILM 240 or ENGL 248 or HUM 248 or FILM 248 or JASS 240 or HUM 275 or HUM 303  
This course will establish the role of mainstream cinema in the construction of female gender roles in contemporary Western society. The course will engage with debates in feminist film theory and the role of avant-garde and non-Western cinema in challenging the gender ideology of mainstream cinema.

WGST 390  Topics in Women's Studies  
3.000 Credits  
Prerequisites: WST 275 or WGST 275 or WGST 303 or WGST 303  
Examination of problems and issues in selected areas in Women's and Gender Studies. Title in Schedule of Classes will change according to content. Course may be repeated for credit when specific topic differs. (YR)

WGST 3955  Diversity and the Workplace  
3.000 Credits  
Prerequisites: PSYC 4305 or PSYC 431 or WST 275 or WGST 275 or OB 354 or HRM 405 or WGST 303 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303  
This course will: 1) discuss gender, race, ethnicity, disability, age, sexual orientation, and appearance as aspects of diversity; 2) examine social values and practices, and organizational policies and procedures that affect or have affected the employment opportunities of underrepresented groups; 3) examine individual (e.g., prejudice, stereotypes), group (e.g., in-groups and out-groups), and organizational (e.g., climate and culture) processes that affect workplace diversity and; 4) discuss "best practices" for promoting an organizational culture that values diversity, along with a diverse work force.

WGST 401  Images of Women in Germany  
3.000 Credits  
Must be enrolled in one of the following classes:  
Sophomore  
Senior  
Junior  
This course will focus on the position of women in Germany after WWII and up to and after the unification of East and West Germany. Particular attention will be given to the gendered history of working through the National Socialist past, the division and reconstruction of the two nation-states, and the terrorism in West Germany in the 1970's. Students will examine images of women in films and tie them to the ideologies of gender and status of women in these larger issues of German history. Course readings will be in English. Students wishing to receive German credit for the course must enroll concurrently in GER 380: Praktikum. Students cannot receive credit for both WGST 401 and WGST 501.
WGST 404  Dissed: Differ, Power, Discrim
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

Have you ever been dissed? Why are some people targets of disrespect? This class examines the unequal distribution of power - social, economic and political in the United States and other countries that results in favor for privileged groups. We will examine a variety of institutional practices and individual beliefs that contribute to disrespect. We'll look at ways that beliefs and practices, like viewing inequality as consequence of a "natural order," obscure the processes that create and sustain social discrimination. We will engage in the intellectual examination of systems, behaviors and ideologies that maintain discrimination and the unequal distribution of power and resources. Student will not receive credit for both WGST 404 and WGST 504.

WGST 405  Gender Roles
3.000 Credits
Prerequisites: PSYC 171 or SOC 200 or SOC 201 or PSYC 170

This course will investigate the development of sex roles in childhood and adolescence due to either innate physiological differences or sociological patterning, the effect of sex roles upon male-female relationships within our society and the possibility of transcending sociological sex roles in alternate modes of living. Students cannot receive credit for both WGST 405 and WGST 505.

WGST 406  Culture and Sexuality
3.000 Credits
Prerequisites: ANTH 101 or WGST 275 or WST 275 or WGST 303 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or PSYC 303 or SOC 303 or ANTH 303

The study of women, men, children, socialization practices and the genesis of sex roles cross-culturally. Students cannot receive credit for both WGST 406 and WGST 407.

WGST 407  Sexual Praxis and Theory
3.000 Credits
Prerequisites: WST 275 or WGST 275 or HUM 275 or PSYC 275 or ANTH 275 or SOC 275 or WST 275 or ANTH 406 or ANTH 101 or WGST 303 or ANTH 303 or PSYC 303 or SOC 303 or HUM 303

This course will offer an overview of sexual differences including: the socio-cultural construction of gender, sexual behavior and orientation; sex and sexualities in language and literature; and diversity by race, class and cultural heritage. These topics will enable students to understand human sexuality within and across a continuum removing notions of duality or polarity, in sexual behaviors and orientations. Examples both from within Western society and from non-Western societies may be used to further this position. Theoretical perspectives may encompass sociological and anthropological work, literary theory and criticism, queer theory, and multi-disciplinary discussions/discourse. Texts may include: Sex and the Machine; Readings in Culture; Gender and Technology; The Anatomy of Love; The Lesbian and Gay Studies Reader, Second Skins: The Body Narratives of Transsexuality, and Lesbian and Gay Marriage.

WGST 408  Gender, Pwr & Intl Development
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

This course provides an overview of gender issues in development in the global South, including the differential effects of development policies on women and men, and the role of social movements in transforming development policy frameworks. Students may not receive credit for both WGST 408 and 508. For graduate credit, students should elect WGST 508.

WGST 409  Feminist Theories
3.000 Credits
Prerequisites: WGST 275 or WST 275 or SOC 200 or SOC 201 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

This course examines the different perspectives that feminist theorists have offered to analyze the unequal conditions of women's and men's lives. Students taking this course will develop an understanding of how theory functions as a way to know, understand and change the world. They will also be provided with a lens for comparing the assumptions and implications of alternative theoretical perspectives. A particular emphasis of this course is on theorizing the interrelationships among gender, race, class, sexuality and nationality. Course material includes applications of feminist theory to issues such as gender identity formation; sexuality; gender, law and citizenship; women and work; and the history and politics of social movements. Students will not receive credit for both WGST 409 and WGST 509. (AY )

WGST 411  Men and Masculinity
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: SOC 303 or SOC 201 or ANTH 101 or WST 275 or WGST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

This course addresses the question, "What is a man?" in various historical, cross-cultural and contemporary contexts. A major focus is on the social and cultural factors that underlie and shape conceptions of manhood and masculinity in America as well as in a variety of societies around the globe.

WGST 412  Earl Mod Jpn Paint&Wood Prnts
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate

Painting and woodblock prints of the Edo/Tokugawa (1600-1868) and Meiji (1868-1912) periods are considered in light of competing developments that on the one hand looked to Japan's classical tradition and on the other to the influence of art and artists from China and from the West. Special attention is given to female artists and images of women. Students cannot receive credit for both WGST 416 and WGST 516.
WGST 420  Kinship and Marriage
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: ANTH 101
A study of the diversity of kinship and marriage systems, and of the history of kinship theory which has played a seminal role in the development of general anthropological history. Students cannot receive credit for both WGST 420 and WGST 520.

WGST 425  Women in Classical Antiquity
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: ARTH 101
This course examines the evidence for the lives of women in Greek, Etruscan and Roman Antiquity, from the Bronze Age through the Imperial Period. Special emphasis will be placed on the archaeological evidence, especially works of art which illustrate women's lives and their relationships with men. Documents such as dedicatory and funerary inscriptions, the poetry of Sappho and Sulpicia, and selections from the writings of Homer, Hesiod, Aristotle, Pliny, Juvenal, and other ancient authors, will also be examined critically, particularly in relationship to the works of art.

WGST 433  Writing Women In Renaissance
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
This course will be taught in English, and will focus on the influence of Italian literary models for the construction of female literary types as well as female voices in France and Italy from 1300 to about 1600. Italian authors studied include three very influential Florentines, Dante, Petrarch and Boccaccio, as well as Castiglione and Asiosto. We will read women poets, patrons, prostitutes and queens from Italy and France such as Veronica Gambara, Isabella di Morra, Vittoria Colonna, Christine de Pizan, Louise Labe and Marguerite de Navarre. At issue will be women's roles and women's images in city and court culture during the early modern period and the interaction of their writings with the literary canons of Italy and France.

WGST 445  20C/21C Women Authors
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or ENGL 240)
An analysis of images and problems of women as defined by significant British and American women writers of the 20th and 21st centuries. Style and narrative technique will also be closely examined. Students cannot receive credit for both WGST 445 and WGST 545.

WGST 446  Marriage and Family Problems
3.000 Credits
Prerequisites: SOC 200 or SOC 201 or WGST 275 or WST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303
Sociological analysis of problems encountered within the institution of marriage with particular reference to such issues as choosing a marriage partner, sexual adjustment, occupational involvement, conflict resolution, child rearing, divorce and readjustment. Students cannot receive credit for both WGST 446 and WGST 546.

WGST 447  Family Violence
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: SOC 200 or SOC 201 or SOC 301 or SOC 443 or PSYC 405 or WST 405
Sociological analyses of various forms of family violence which occur disproportionately in the lives of girls and women. Topics such as incest, sexual abuse, date rape, wife battering and elder abuse will be situated within the social and cultural context of contemporary gender relationships. Social and political responses to the phenomena will be examined. Students cannot receive credit for both WGST 447 and WGST 547.

WGST 4505  Feminism & Mod. Mid. East
3.000 Credits
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: COMP 106 or HIST 101 or HIST 113 or WGST 303
This course provides an analysis of the history, historiography, and sources for the study of feminism in the Middle East since 1800.

WGST 455  Gender and Media Studies
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: WGST 303 or HUM 303 or ANTH 303 or PSYC 303 or SOC 303 or WGST 275 or HUM 275 or ANTH 275 or PSYC 275 or SOC 275 or WST 275
The course will focus on several feminist approaches used in understanding the media and attempting to create social change through the media. The role of media in the definition and reproduction of gender-based hierarchies and in the renegotiation of gender boundaries will both be explored. To this end, both mainstream and women's media will be examined. The course will take a multicultural and international perspective, incorporating concerns of class, race, ethnicity and nation as these intersect with the study of gender and media. Mainstream and alternative media will be analyzed through readings, films, case studies, in-class collaborative exercises and longer-term projects. News, entertainment and advertising genres will be examined in a variety of media, such as the printed press, television, video, film and the Internet.

WGST 4555  Immigrant Cultures and Gender
3.000 Credits
Prerequisites: ANTH 101 or WGST 275 or WST 275 or PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 330 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303
The history and culture of immigration since 1850, including: (1) formation and perseverance of immigrant communities and interethnic boundaries; (2) relations between the homeland and the immigrant; and (3) impact of migration on family life and gender roles. Prerequisite and junior or senior standing. Students may not receive credit for both WGST 4555 and WGST 5555. For graduate credit take WGST 5555.
WGST 461  Cops & Cons: Women in Prison
3.000 Credits
Must be enrolled in one of the following classes:
  Senior
  Junior
Prerequisites: PSYC 275 or SOC 275 or ANTH 275 or HUM 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303 or SOC 200 or SOC 201 or CRJ 240 or CRJ 300

Course uses contemporary theories of gendered organizations to frame analyses of prison policies and practices in employment and incarceration as they reflect and reproduce gender inequalities. Analyses will be framed within a restorative justice model, that is, a critique of the current criminal justice system of retributive justice and a paradigm of what an alternative system could be.

WGST 4650  Sem in US Women's History
3.000 Credits
  May not be enrolled in one of the following Classes: Sophomore Freshman
Prerequisites: HIST 300

Seminar on the historiography and key primary sources related to U.S. Women's History. The course covers examples of classic texts in the field as well as significant new works of scholarship, with an emphasis on critical reading, analysis, and historiography of the field. Students gain a deeper understanding of the field, its guiding concepts, foundational texts, newest trajectories, and impact on the field of history as a whole. The graduate version of this course includes weightier readings and assignments.

WGST 466  Feminist Rhetorical Theories
3.000 Credits
  Must be enrolled in one of the following Levels: Undergraduate
  May not be enrolled in one of the following Classes: Freshman
Prerequisites: COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40

An introduction to the work of major twentieth century feminists working in rhetoric and related fields. Students examine recurring themes of language, meaning, ethics and ideology, and practice writing strategies which address rhetorical and ethical concerns central to feminist/academic writing.

WGST 470  Black Women / Lit, Film, Music
3.000 Credits
  Must be enrolled in one of the following Programs: AB-Women's and Gender Studies
Prerequisites: FILM 240 or FILM 248 or FILM 385 or AAAS 239 or AAAS 275 or WST 275 or WST 370 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 234 or ENGL 237 or ENGL 239 or ENGL 248 or HUM 221 or HUM 222 or HUM 223 or WGST 275 or WGST 370 or ENGL 200

This course will examine works produced by Black women authors, activists, filmmakers and musical performers in order to determine the methods they have incorporated in order to challenge and eradicate the prevailing stereotypes about Black women while advancing their own personal and racial agendas. It will also focus on the extent to which race, gender and class have shaped the creative work of Black women. Students will be required to read, analyze and write their own responses to the works of such firebrands as author Zora Neale Hurston, activist Ida B. Wells, filmmaker Julie Dash and singer Billie Holiday.

WGST 471  Sexual Subcultures in Lit
3.000 Credits
Prerequisites: (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239) and (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40)

This course surveys primarily contemporary literature by writers who identify as gay, lesbian, bi-sexual, transgender, or queer. By studying the self-representation and culturally unique perspective of this emerging canon of writers, students in this course understand the emergence of LGBTQ literary traditions and understand the cultural diversity within these traditions. Students learn to identify the aesthetic qualities (such as camp, performativity, coded subtexts, homoeroticism, and the relationship between creativity and sexuality), and historical, political, and social concerns that characterize LGBTQ literary and cultural production. Topics covered include the struggle for civil rights before and after Stonewall, coming out narratives, the negotiation of homophobic cultures, post-colonial writers, and memoirs of the LGBTQ experience, as well as the historical emergence of sexual categories and the literary critique of heteronormativity. This course counts toward the English discipline diversity requirement. Students cannot receive credit for WGST 471 and WGST/ENGL 571.

WGST 473  Arab American Women Writers
3.000 Credits
  May not be enrolled in one of the following Classes: Freshman

This course examines the literary and cultural contributions of Arab and Arab American women novelists, poets, filmmakers and artists to the development and consolidation of cultures of understanding and coexistence; explores the relations between, among others, citizenship and belonging, race and national security, gender and geographical mobility, and ethnic minorities and mainstream consciousness; stresses how literary and artistic productions of Arab and Arab American women writers and artists fosters alternative visions of socio-cultural coexistence, dialogue, and hospitality by means of technical and stylistic experimental and renovation.

WGST 475  Diversity Iss in Mental Health
3.000 Credits
Prerequisites: WGST 303 or ANTH 303 or HUM 303 or SOC 303 or PSYC 303 or WGST 336 or HPS 336

Diversity Issues in Mental Health explores varied cultural descriptions and models of mental illness. By focusing on the ways that culture shapes how people experience, and respond to, mental illness this class explores cultural representations of mental illness, ranging from discrete illness resulting from a chemical imbalance to a profound threat to order. We seek to understand the cultural, personal, and political underpinnings of mental illness and medical practices in societies throughout the world. The course utilizes an interdisciplinary perspective, drawing from multiple sources of information regarding mental health issues, including feminism, psychiatry, history, sociology, and literature. Issues raised throughout the course include the ways gender, race, culture, religion, and stigma influence the diagnosis of mental illness, patterns of help-seeking behavior, formation of comprehensive mental health policy, and treatment options.

WGST 476  Inside Out Prison exchange
4.000 Credits
  Must be enrolled in one of the following classes: Senior Junior

This community-based course, taught in a local correctional facility, brings university students and incarcerated students
together to study as peers. Together students explore issues of crime and justice, drawing on one another to create a deeper understanding of how these issues affect our lives as individuals and as a society. The course creates a dynamic partnership between UMD and a correctional facility to allow students to question approaches to issues of crime and justice in order to build a safer and more just society for all. The course encourages outside (UMD) students to contextualize and to think deeply about what they have learned about crime and criminals and to help them pursue the work of creating a restorative criminal justice system; it challenges inside students to place their life experiences into larger social contexts and to rekindle their intellectual self-confidence and interest in further education.

WGST 478 Women and Gend Studies Intern
3.000 Credits
Prerequisites: ANTH 275 or SOC 275 or WST 275 or PSYC 275 or HUM 275 or WGST 275 or WGST 303 or PSYC 303 or SOC 303 or ANTH 303 or HUM 303

Provides field experience in social welfare or criminal justice agencies e.g., for children/adolescents in residential programs, in abuse remediation, in probation, for chemical dependencies, in victim advocacy, for the elderly, in prisons, for special needs populations, in services, in medical/public health, in police services, and for families and communities. Supervision by approved field instructors. An internship of 80 hours is required for three (3) credits. Instructor and student will work together to determine appropriate intern placement. Approval of instructor and the Women's Studies Director in required.

WGST 481 Gender and Globalization
3.000 Credits
Must be enrolled in one of the following Levels:

Undergraduate
Prerequisites: or HUM 303 or SOC 303 or PSYC 303 or WGST 303 or ANTH 303

Mass media, politics and academia are full of references to globalization, and a future "world without borders." This interdisciplinary course considers the implication of globalization for women's lives, gender relations and feminism. Topics covered include the global factory, cross-cultural consumption, human rights, global communications, economic restructuring, nationalism and environmental challenges. Rather than survey international women's movements, this course explores how globalization reformulates identities and locations and the political possibilities they create.

WGST 484 Violence Against Women
3.000 Credits
Must be enrolled in one of the following Levels:

Undergraduate
May not be enrolled in one of the following Classes:

Freshman
Prerequisites: SOC 200 or SOC 201 or WGST 303 or HUM 303 or PSYC 303 or ANTH 303 or SOC 303 or WST 275 or HUM 275 or PSYC 275 or SOC 275 or ANTH 275 or WST 275

Course examines local and global social violence against women outside family and other intimate relationships. Students consider violations against women's human rights through the life cycle, which are often sanctioned under the guise of cultural practices and misinterpretations of religious tenets. Topics include sex-selective abortion and female infanticide ide (the "missing millions"); female genital mutilation and cosmetic surgeries; prostitution and pornography; trafficking in women; sexual harassment; and women's experiences of war as soldiers, non-combatants and refugees. Topics are "paired", that is, students compare understandings of Western and non-Western social practices related to gender. Students examine both institutionalized sexism and racism, as part of political, economic, and social systems, and sexism and racism as realities affecting individual women's lives.

WGST 486 Queer Theory & Literature
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239 or AAAS 239)

This course reads theories of sexuality to analyze how writers since 1600 have imagined printed text to reflect and shape desire, particularly same-sex desire. The course questions how same-sex desire appears in literature written before the theorization of "the Homosexual" in the late nineteenth century as well as how writers imagine sexuality before a hetero/homosexual binary appears. Writers may include contemporary theorists (Sedgwick, Foucault, Butler) as well as novelists (Kushner and Wycherley), playwrights (Kushner and Wycherley), and poets.

WGST 487 Monsters, Women & the Gothic
3.000 Credits
Prerequisites: (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40) and (ENGL 200 or ENGL 230 or ENGL 231 or ENGL 232 or ENGL 233 or ENGL 235 or ENGL 236 or ENGL 237 or ENGL 239)

This course questions our inheritance of the "the gothic" as a distinct literary style that continues to discipline readers' notions of gender and sexual identity. The course argues that by tracing the gothic's literary history, we may simultaneously witness a history of gender formation. Readings may include English novelists who originated a gothic style in English (Walpole, Radcliffe, Lewis) as well as English and American poets and novelists who have debated as well as resisted the effects of the gothic on readers? (particularly women's) psychology (Christina Rossetti, Austen, King, Stoker).

WGST 490 Topics in Women's Studies
3.000 Credits
Must be enrolled in one of the following Levels:

Undergraduate
Prerequisites: WST 275 or WGST 275 or LIBS 580 or WGST 303

Examination of problems and issues related to Women's Studies. Title as listed in Schedule of Classes will change according to specific content. Course may be repeated for credit when specific topics differ.

WGST 498 Womens & Gender St Thesis
Must be enrolled in one of the following Levels:

Undergraduate
A thesis project that is the culmination of the minor in Women's Studies. Students meet with the instructor to reflect on past studies and plan current projects, to conduct research that addresses a gender issue in the larger community, and to write a thesis under the direction of the faculty member. Research involving participant-observer in social agencies is encouraged where appropriate.

WGST 499 Independent Studies
1.000 TO 6.000 Credits
Must be enrolled in one of the following Levels:

Undergraduate
Provides opportunity for qualified Women's Studies students to pursue in dependent research under the direction of a qualified faculty member. Project must be defined in advance, in writing and must be in a subject not currently offered in the regular curriculum.
College of Business

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College of Business

Administration

Raju Balakrishnan, Dean
Claudia Kocher, Associate Dean

Academic Program Directors

Susan Wells, Undergraduate Programs
Michael Kamen, Graduate Programs

Internship Program

Michael Callahan, Program Director
Fabia Snage, Program Coordinator

Professors Emeriti

Chou, Yu-Min, PhD, Professor Emeritus of Business Economics and Finance
Cowan, D. Ross, MF, Associate Professor Emeritus of Operations Management
Culp, William H., PhD, CPA, Professor Emeritus of Business Administration
Czarnecki, Richard E., PhD, CPA, Professor Emeritus of Business Administration
Foran, Michael, PhD, Professor Emeritus of Accounting
Fricke, Cedric V., PhD, Professor Emeritus of Business Administration
Lev, Benjamin, PhD, Professor Emeritus of Operations Research
Lyons, Thomas F., PhD, Professor Emeritus of Business Administration
Martin, William R. D., MBA, Professor Emeritus of Business Administration
Steel, Robert, PhD, Professor Emeritus of Organizational Behavior
Streeter, Victor J., PhD, Associate Professor Emeritus of Management Information Systems
Waissi, Gary, PhD, Professor Emeritus of Operations Research

Faculty

Ahuvia, Aaron, PhD, Northwestern University, Professor
Baker, Susan, MBA, University of Michigan, Lecturer
Bayou, Mohamed E., PhD, University of Cincinnati, Professor
Beatty, Joy, PhD, Boston College, Associate Professor
Blatz Jr., Robert, JD, LLM, New York University School of Law, Associate Professor
Bublitz, Bruce, PhD, CPA, University of Illinois, Professor
Cai, Kelly, PhD, University of Houston, Associate Professor
Callahan, Thomas J., PhD, Michigan State University, Associate Professor
Chandra, Churu, PhD, Arizona State University, Professor
Chen, Yi-Su, PhD, University of Minnesota, Assistant Professor
Freeman, Lee A., PhD, Indiana University, Associate Professor
Graybeal, Patty, PhD, Virginia Tech University, Assistant Professor
Green, Brian P, PhD, CPA, Kent State University, Professor
Guo, Yi, PhD, Texas A & M, Assistant Professor
Harkness, Michael D., PhD, CPA, University of South Florida, Associate Professor
Hartge, Timothy, MA, University of Michigan, Lecturer
He, Jun, PhD, University of Pittsburgh, Assistant Professor
Holowicki, Gerald, MS, Eastern Michigan University, Lecturer
Izberk-Bilgin, Elif, PhD, University of Illinois at Chicago, Assistant Professor
Kobelsky, Kevin, PhD, University of California, Assistant Professor
Klein, Barbara D., PhD, University of Minnesota, Associate Professor
Kocher, Claudia, PhD, Michigan State University, Associate Professor
Kumar, Kamlesh, PhD, University of North Texas, Professor
Lee, Hei Wai, PhD, University of Illinois at Urbana-Champaign, Professor
Lee, Junghyun, PhD, George Washington University, Assistant Professor
Liu, Zhixin, PhD, The Ohio State University, Assistant Professor
Malloy, Janice, PhD, The Ohio State University, Assistant Professor
McCracken, Gail K., JD, CPA, Wayne State University, Lecturer
Miranda, Maria, PhD, University of New Orleans, Lecturer
Padmanabhan, K.H., PhD, Michigan State University, Associate Professor
Park, Cheong Kevin, PhD, University of Kentucky, Assistant Professor
Philipich, Kirk, DBA, Indiana University, Assistant Professor
Redding, Lee, PhD, Princeton University, Associate Professor
Ro, Young, PhD, University of Michigan, Associate Professor
Rossin, Donald F., PhD, University of California at Los Angeles, Associate Professor
Rowland, Martha, MA, Wayne State University, Lecturer
Samfilippo, Chris, MBA, Wayne State University, Lecturer
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Valero-Tonone, Magali, PhD, Arizona State University, Assistant Professor
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General Information

Mission

The College of Business provides high quality, practice-oriented business programs to well-qualified students on a regional campus of the University of Michigan. While the College primarily maintains a regional student focus, it provides a quality educational experience preparing them for national placement. Our primary mission is to meet the business-related educational needs of our undergraduate and graduate students, supported by new technologies and a variety of teaching methodologies. By providing regional organizations with professionally competent interns and graduates, we strive to meet both the community's human resource needs and our students' employment and education needs. The mission is enhanced by the College's location in a major metropolitan and industrial area. The environment is strongly influenced by the automobile manufacturing industry and its increasingly global outreach.

Our undergraduate and graduate programs are designed to supply students with professional and technical skills essential to being successful in an evolving business environment. Each program is characterized by limited class size. We also offer students outstanding professional internship opportunities.

Our primary mission is complemented by our faculty's commitment to making intellectual contributions. The main focus of this intellectual process is refereed publications in nationally recognized journals that lead to contributions beneficial to academic and business professionals.

The College of Business's tradition of exemplifying high standards for both faculty and students is acknowledged by AACSB International, The Association to Advance Collegiate Schools of Business, which has awarded fully accredited status for both the undergraduate and graduate programs.

Bachelor of Business Administration Program

The Bachelor of Business Administration (BBA) program is a professionally oriented program that builds upon a strong liberal arts foundation and develops the diversified competencies called for in the management of a modern business enterprise. The program also is designed to impart knowledge of the fundamental administrative skills demanded of the leaders in modern public and private organizations. It also can provide a rigorous preparation for graduate study in management science, business administration, law, and related areas.

Approximately one-half of the course requirements of the degree program are in non-business disciplines and provide the foundation for the professional offerings. These requirements are designed to give the student a more profound understanding of the student's own heritage, and of the physical and social universes within which the student lives. They develop the principles and standards of analysis, expression, and conduct.

BBA Program Learning Goals

The following Learning Goals have been developed by the faculty in the College of Business. These goals describe what we want all of our students to know and be able to accomplish upon graduation.

1. Students will be knowledgeable about the business disciplines.
2. Students will be effective communicators.
3. Students will be effective team members.
4. Students will be competent in the application of technology.
5. Students will be knowledgeable about global business practice and managing a diverse workforce.
6. Students will be knowledgeable about ethical principles and their application.
7. Students will apply critical thinking skills to business situations.

BBA Program Planning for UM-Dearborn Pre-business Students

Programs of undergraduate study in business administration leading to a bachelor's degree involve approximately four years of college study, the first two years of which can be considered pre-professional preparation in foundation courses covering fundamental subject matter. The third and fourth years constitute the more specialized professional phase of the degree program. It is in the offering of this professional phase that the faculty of the College of Business has principal responsibility.

Students seeking the BBA degree who are admitted to UM-Dearborn as freshmen or sophomores enter the pre-business program of the College of Business. The pre-business program is designed to provide students with a strong liberal arts foundation. Pre-business students declare their major in the BBA program during the term in which they complete their sophomore year and the specific course requirements. Students not enrolled in the BBA program cannot elect more than 30 credit hours in courses offered by the College of Business.

ADMISSION

Admission to the BBA program is competitive and requires that the student has high promise as evidenced by the record compiled in the first two years of study. A student must have completed at least 55 credit hours to be considered for admission to the B.B.A. program. These credit hours must include necessary prerequisites for admission to the B.B.A. program.

Courses required for admission to the B.B.A. program, including those courses that are prerequisite to the required courses, in which a grade of C- or below has been received, must be repeated during the student’s next academic term. Prerequisite courses are COMP 105 and 280, ECON 201 and 202, MATH 113 or 115, BA 100, and ACC 298 and 299.

Appropriate and timely sequencing of the required math courses is critical for the successful admission to the BBA program. Students, entering as Freshmen, are required to have completed math through calculus (MATH 113 or 115) by their junior year. Freshmen are required to take the math placement exam prior to their first term of enrollment and begin their math courses in their first term of enrollment.
BBA Program Planning for Transfer Students

Programs of undergraduate study in business administration leading to a bachelor's degree involve approximately four years of college study, the first two years of which can be considered pre-professional preparation in foundation courses covering fundamental subject matter. The third and fourth years constitute the more specialized professional phase of the degree program. It is in the offering of this professional phase that the faculty of the College of Business has principal responsibility.

ADMISSION

A transfer student seeking the BBA degree may be granted regular admission to the BBA program if the student has completed at least 55 semester credit hours at an accredited university or college and if the student has satisfactorily completed prerequisites for the program. Required prerequisites include the equivalent courses to UM-D's ACC 298 and 299; MATH 113 or 115; COMP 105 and 280; ECON 201 and 202; and BA 100.

The UM-Dearborn Undergraduate Admissions Office provides local community colleges with equivalency tables. These tables should be consulted when planning course scheduling. A student who is otherwise admissible but has not satisfied these conditions, may be considered for admission to the pre-business program until the conditions are met.

Courses required for admission to the BBA program, including those courses that are prerequisite to the required courses, in which a grade of C- or below has been received, must be repeated during the student’s next academic term. Prerequisite courses are COMP 105 and 280, ECON 201 and 202, MATH 113 or 115, BA 100, and ACC 298 and 299.

Admission is based on the quality and content of both the high school and the college academic records, and standards of evaluation are designed to ensure that each student who is admitted has the intellectual capacity and the preparation to pursue advanced undergraduate work successfully. Admission criteria are applied to all students without regard to race, color, sex, creed or national origin.

Students who plan to transfer to the BBA program at UM-Dearborn after completing two academic years of course work should plan to complete most of the General Education distribution requirements prior to transfer. It is especially important to have completed the requirements in English composition, natural/biological science, principles of economics, principles of accounting, mathematics, and introduction to business.

Appropriate and timely sequencing of the required math courses is critical for the successful admission to the BBA program. Pre-business students are encouraged to take the math placement exam prior to their first term of enrollment. Students who have not taken the exam prior to their first term of enrollment will be required to complete the exam their first semester and register for math the following term. Transfer students must progress with math every full term of their enrollment until they complete calculus.

TRANSFER OF CREDIT

Full credit will be given for all acceptable courses in which a student has earned at least a C grade at an accredited college. A maximum of 62 credits from a community college and a maximum of 75 credits from a non-UM university or college are accepted for transfer; the total maximum number of non-UM credits not to exceed 75. A maximum of 90 credits from another UM unit are accepted for transfer. The minimum number of hours at UM and in the College of Business as stated in the section on BBA Degree Requirements must also be earned.

BBA Degree Requirements

The BBA degree will be granted to those students who meet the following requirements:

Satisfactory completion of at least 123 hours of college-level work distributed as follows:

- BBA Precore requirements .............................................. 25 hrs
- General Education Distribution requirements ................. 31 hrs
- BBA Core requirements ............................................... 38 hrs
- Major requirements .................................................. 15-21 hrs
- Elective requirements .................................................. 8-14 hrs

Satisfactory completion of 48-61 hours at UM-Dearborn, the final 33 hours of which are taken while in the BBA program. A minimum of 21 credits of the 33 hours must be in courses taught in the College of Business.

Achievement of a minimum 2.0 grade point in all UM-Dearborn coursework, in all courses offered by the College of Business, and in the major.

BBA Precore .......................................................... 25 hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 100</td>
<td>Perspectives of Business in a Changing World</td>
</tr>
<tr>
<td>ACC 298</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ACC 299</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>COMP 105</td>
<td>Writing and Rhetoric I</td>
</tr>
<tr>
<td>COMP 280</td>
<td>Business Writing and Rhetoric</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>MATH 113</td>
<td>Calculus I: Management, Life and Social</td>
</tr>
<tr>
<td></td>
<td>Science or MATH 115 Calculus I</td>
</tr>
</tbody>
</table>

Note: Each incoming student will take the UM-Dearborn Composition Placement Examination. Freshman must take the exam and enroll in the appropriate level of English Composition in their first term of enrollment. Transfer students must take the exam by the sixth week of the first semester in the College of Business. Performance on the exam will determine which writing courses will be required. Excellent performance on the examination may result in the requirement for Composition 105 and/or 106/280 being waived. Note that demonstrating proficiency does not grant credit for courses not taken. Students exempt from the English Composition requirement must fulfill the 3-6 credit hours in electives.

Note: All incoming freshmen will take the UM-Dearborn Mathematics Placement Exam and enroll in the appropriate level of math their first term of enrollment. Transfer students without credit for precalculus or higher level math are required to take the exam by the sixth week of their first semester and begin math, based on their placement, by their second semester of enrollment.
General Education Distribution
Requirements .........................................................31 hrs

A student seeking a degree from the College of Business must fulfill the coursework specified below.

Arts .................................................................3 hrs
ARTH 101, 102, 103, 104, 106
MHIS 100, 120, 130; JASS 240, 248
MHIS/RELS/HUM 333
HUM 3335

Letters ...............................................................3 hrs
ENGL 200, 230, 231, 232, 233, 235, 236, 237, 238, 239
HUM 171, 201, 221, 222, 223
PHIL 100, 120, 200, 240

Behavioral and Social Sciences ................................9 hrs
A student must elect at least one course from Group A.

Group A
ANTH 101, 202
PSYC 170, 171
SOC 200, 201

Group B
POL 101, 201

History .............................................................3 hrs
Any history course excluding HIST 398, 399, 485, 497, 498 and 499.

Biological and Physical Sciences ..............................7 hrs
One course must be a laboratory course.
ASTR 130 or 130&131
BIOL 100 or 100 & 101
BIOL 103, 105, 130, 140
CHEM 100, 134, 136, 144, 146
ESCI 275, ENST 203
GEOL 118, 218
NSCI 120, 121
PHYS 100, 125, 126, 150, 151

Natural Science 120 and Biology 100 or 100 & 101 may not be used together to meet the requirement.

Critical Thinking ................................................3 hrs
PHIL 233  Critical Thinking

Diversity Requirement ........................................3 hrs
AAAS/CRJ/PSYC 322
AAAS/CRJ 403
AAAS 404
ANTH 320, 373
ANTH/SOC/WGST 481
ECON 325, 342, 344
HIST 105, 323, 326
POL/CRJ/WGST 362
SOC/CRJ 350
SOC/CRJ 443 (PSYC 405)
SOC/AAAS 449
SOC 460

Business Administration Core
Requirements ....................................................38 hrs

BA 300  Career Planning
BA 320  Project Management
BA 330  Managerial Communications
BA 400  Corporate Responsibility
BE 401  Managerial Economics
BPS 451  Strategic Management
DS 300  Quantitative Modeling and Analysis I
FIN 401  Corporate Finance I
LE 452  The Legal Environment of Business

OR

ACC 380/381*  Accounting Information Systems

MKT 352  Marketing Principles and Policies
OB 354  Behavior in Organizations
OM 300  Introduction to Operations Management

*Note: ACC 380/381 is a requirement for students pursuing an Accounting major.

Major Requirements .......................................15-21 hrs

All BBA students must declare and fulfill the requirements for a major in Accounting, Finance, General Business, Digital Marketing, Information Technology Management, Management; Marketing, Supply Chain Management, or Human Resource Management.

Accounting Major ........................................21 hrs

Required
ACC 355  Cost Accounting and Analysis
ACC 356  Asset Accounting
ACC 357  Equity Accounting
ACC 360  Federal Income Tax
ACC 457  Auditing

*Plus two courses from the following
ACC 403  Controllership
ACC 416  Advanced Accounting
ACC 438  Advanced Federal Income Tax
ACC 439  Not for Profit Accounting
FIN 402  Advanced Corporate Finance
ITM 382  Advanced Computer Applications
ITM 383  Information Technology Security
LE 453  Commercial Transactions

The Accounting major provides the student with a foundation to pursue a career in accounting. *Students preparing for the Certified Public Accounting exam need to choose ACC 416 and 439 to meet state requirements.

Digital Marketing Major .....................................21 hrs

Required
MKT 363  Business to Business Marketing
MKT 454  Marketing Research
MKT 455  E-tailing and Retailing
MKT 458  Communications Strategy and New Media
MKT 463  Digital Analytics and Content
Plus two courses from the following
MKT 382 Understanding Customers
MKT 402 Marketing Management
MKT 457 Global marketing and Consumer Culture
ITM 321 Database Systems I
ITM 371 Managing Electronic Commerce Systems
ITM 382 Advanced Computer Applications

Digital marketing is where marketing meets digital media, such as the internet, social media, cell phones and video games. Digital marketing covers activities such as search engine optimization, viral marketing, web analytics, social network marketing, experiment based market research, reputation management. Double majoring in digital marketing and marketing is not permitted.

**Finance Major** ................................. 18 hrs

**Required**
ACC 358 Financial Reporting or ACC 357, Equity Accounting
FIN 402 Advanced Corporate Finance
FIN 407 Investment Fundamentals
FIN 447 Derivative Markets
IB 441 International Financial Management

Plus one course from the following
ACC 355 Cost Accounting and Analysis
BE 403 Business Conditions Analysis
FIN 443 Commercial Banking
FIN 445 Corporate Finance Models and Applications
FIN 456 Fixed Income Securities
FIN 484 Seminar: Financial Management
FIN 494 Research: Financial Management
IB 486 Seminar: International Business
ITM 382 Advanced Computer Applications

The Finance major offers flexibility for developing careers in investments, financial institutions and corporate finance. The program offers analytical rigor, theoretical knowledge and teaching methods that stress hands-on applications. Finance internships historically have proven to be among the most numerous and challenging available.

**General Business Major** ................................. 15 hrs

The major in general business has been designed for students seeking a broad business background rather than a specialization in any one functional area of business. Coursework to complete the General Business major must be upper division business credits beyond the BBA core (excluding business internship). General Business students will not be permitted to combine this major with any other College of Business major.

**General Business Major** ................................. 18 hrs

**Required**
LE 453 Commercial Transactions; Adv. Topics

Plus three courses from 300-400 level COB courses beyond the core. Each must be a different subject.

Plus two courses from the following
CRJ/PHIL 445 Contemporary Ethical Issues
CRJ/POL 302 The Theory of the Law
CRJ/POL 303 Justice
CRJ/POL 316 The American Judicial Process
CRJ/POL 413 American Constitutional Law
CRJ/POL 414 Civil Rights and Liberties
CRJ/POL/PHIL 335 Philosophy of Law
CRJ/POL/WGST 362 Women, Politics, and the Law
CRJ/SOC 453 Sociology of Law
ECON 333 Anti-Trust and Regulation
ENST 350 Environmental Law
HPS 456 Health Care and the Law
PHIL/STS 312 Environmental Ethics
POL 415 Problems in Constitutional Law

**Management Major** ................................. 18 hrs

**Required**
HRM 305 Human Resource Policy and Administration
MKT 402 Marketing Management
OB 401 Management Skills Development
OM 460 Supply Chain Management

Plus one course from the following
ACC 358 Financial Reporting
FIN 402 Advanced Corporate Finance
IB 441 International Financial Management

And one course from the following
ITM 321 Database Systems I
ITM 382 Advanced Computer Applications

These required courses are designed to provide each student with the fundamentals necessary to enter and develop a career in administration. A student may supplement these foundation courses with elective courses from several disciplines or extend and deepen career preparation with more advanced work in a particular area of administration or analysis.

**Information Technology Management Major** ................................. 21 hrs

**Required**
ITM 301 Business Application Programming
ITM 321 Database Systems I
ITM 331 Information Systems Development
ITM 351 Networking and Collaborative Computing
ITM 431 Database Systems II

Plus two courses from the following
ITM 302 Object-Oriented Programming
ITM 303 iCreate: Mobile Apps
ITM 371 Managing Electronic Commerce Systems
ITM 382 Advanced Computer Applications
ITM 383 Information Technology Security

The Information Technology Management major is designed to prepare students for positions in system development, system analysis, database administration, networking, and as ITM specialists in user departments such as finance, human resource management, marketing and operations management. The major is also designed to prepare students to assume increasing levels of managerial responsibility as their career progresses.

**Marketing Major** ................................. 21 hrs

**Required**
MKT 402 Marketing Management
MKT 454 Marketing Research
Marketing covers the creation of new products and services, the distribution of products from suppliers and manufacturers down to the final consumers, the pricing of products, as well as advertising, sales, and other promotional initiatives. The marketing major provides students an opportunity to develop skills for careers in marketing management, advertising, sales, marketing research, new product development, retailing, international business, purchasing, management of nonprofit organizations, and general business management. Their functional visibility enables high-achieving marketing persons to be aptly recognized, promoted, and compensated. Marketing is also an excellent major for students who are considering starting their own business. Double majoring in digital marketing and marketing is not permitted.

**Supply Chain Management Major** ..................................................21 hrs

**Required**
- OM 460 Supply Chain Management
- OM 465 Strategic Sourcing
- OM 470 Analysis and Design of Supply Chains
- OM 475 Supply Chain Logistics Management
- OM 480 Enterprise Resource Planning

Plus two courses from the following
- HRM 305 Human Resource Policy and Administration
- MKT 436 Business to Business Marketing
- OM 493 Operations Management Research

The major in Supply Chain Management provides students with opportunities for careers in e-business, startups, manufacturing, high tech, service and consulting companies. Supply Chain Management encompasses a set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses and stores so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system-wide costs while satisfying service level requirements. SCM is an interdisciplinary field that emphasizes cross-functional links and seeks to manage those links to enhance a company’s competitive advantage.

**Human Resource Management Major** .................................18 hrs

**Required**
- HRM 305 Human Resource Policy and Administration

Plus three courses from the following
- HRM 406 Staffing, Training & Development
- HRM 407 Compensation & Performance Management
- HRM 408 Management-Union Relations
- OB 402 Organizational Change & Development

And two courses from the following
- ECON 321 Labor in the American Economy
- ECON 421 Economics of the Labor Sector
- HRM 406 Staffing, Training & Development
- HRM 407 Compensation & Performance Management
- HRM 408 Management-Union Relations
- HRM 485 Seminar: Human Resource Management
- HRM 495 Research: Human Resource Management
- OB 401 Management Skills Development
- OB 402 Organizational Change & Development
- OB 485 Seminar: Organizational Behavior
- OB 495 Research: Organizational Behavior
- PSYC 4305 Industrial/Organizational Psychology
- PSYC 431 Organizational Entry
- SOC 442 Sociology of Work

The Human Resources Management major courses are designed as fundamental preparation for positions in human resource management, industrial relations, or general management. A Human Resources Management major would also be valuable to students who are not contemplating a career in human resources, as these courses provide knowledge and skills for selecting, developing, motivating, retaining, evaluating, and directing employees - skills needed by managers in any technical or business domain.

**Note:** Only one independent study can be applied toward the General Business, Marketing, and Human Resource Management majors. Marketing majors may do more than one if they are iLabs related.

**Elective Courses**

Students must complete a minimum of 123 credits to earn the BBA degree. Elective credits are the non-specific credits each student needs to reach degree completion. College-level courses in any discipline which bear UM-Dearborn or transferable academic credit can apply. College of Business business internships may also apply. Additive credit courses do not carry college-level credit toward program. Courses below the 100 level and most EDF courses are additive credit. Non-business co-ops and their related seminars do not carry credit toward a BBA degree.

**Business Minors**

Students pursuing any degree may wish to complement their academic program with a minor from the College of Business. Courses cannot apply towards both a major and a minor.

**Accounting Minor** ..................................................................16 hrs

Prerequisites: MATH 104 or 105 and ACC 298 and ACC 299
- ACC 355 Cost Accounting and Analysis
- ACC 356 Asset Accounting or ACC 358, Financial Reporting
- ACC 360 Federal Income Taxation

Plus two courses from the following
- ACC 357 Equity Accounting
- ACC 380/381 Accounting Information Systems
- ACC 403 Controllership
- ACC 439 Not-for-Profit Accounting
- ACC 457 Auditing

*Finance majors may use ACC 358 towards an accounting minor.*
Finance Minor .................................................. 15 hrs
Prerequisites: ACC 298, ECON 201 and 202, MATH 113 or 115, and DS 300
FIN 401 Corporate Finance
FIN 402 Advanced Corporate Finance
FIN 407 Investment Fundamentals
Plus two courses from the following
ACC 358 Financial Reporting
FIN 443 Commercial Banking: Function and Operations
FIN 445 Corporate Finance Models and Applications
FIN 447 Derivative Markets
FIN 484 Seminar: Financial Management
IB 441 International Financial Management

Information Technology Management Minor .................. 16 hrs
ITM 310/311 Information Systems in Management
ITM 321 Database Systems I
ITM 351 Networking & Collaborative Computing
Plus two courses from the following
ITM 301 Business Applications Programming
ITM 302 Object-Oriented Programming
ITM 331 Information Systems Development
ITM 371 Managing Electronic Commerce Systems
ITM 382 Advanced Computer Applications
ITM 383 Information Technology Security
ITM 431 Database Systems II

Management Minor .................................................. 22 hrs
Not available to College of Business students
Prerequisites: MATH 104 or 105 or 113 or 115
ACC 298 Financial Accounting
ITM 310/311 Information Systems in Management
MKT 352 Marketing Principles and Policies
OB 354 Behavior in Organization
Plus three courses from at least two disciplines from ACC 299 and/or any 300-400 level courses offered in the College of Business.

Marketing Minor .................................................. 15 hrs
MKT 352 Marketing Principles and Policies
Plus four courses from the following
MKT 360 Marketing and Society or MKT 382, Understanding Customers
MKT 402 Marketing Management
MKT 434 Sales Management and Personal Selling
MKT 436 Business to Business Marketing
MKT 455 E-tailing and Retailing
MKT 457 Global Marketing
ENT 400 Introduction to Entrepreneurship
Prerequisites for all courses must be met. Students not enrolled in the College of Business BBA program cannot elect more than 30 credit hours in courses offered by the College of Business. BBA students must complete 12 credits outside their major to earn a minor.

Internship Certificate Program

The College of Business Internship Program provides unparalleled opportunities for University of Michigan-Dearborn, College of Business students of all disciplines to enhance their academic experience by applying their education in actual business environments. Through an internship, students apply the skills and knowledge they have developed in the classroom, build a strong track record and enhance their relationship skills with business leaders in the community.

Students who participate in the program get the opportunity to:

- Apply classroom theory to actual work situations
- Test out their interests and better develop their long-range career plans
- Earn elective course credits toward their degree requirements
- Enhance their marketability after graduation
- Earn money
- Develop experience and maturity by strengthening their resourcefulness, problem-solving skills, self-confidence, self-discipline, and their sense of responsibility
- Potentially gain faster promotions once they are hired, than their non-internship experienced co-workers
- Develop human relations and communication skills through interaction in career settings

For the internships listed below, the following applies:

- Student must sign and comply with an Internship Contract.
- Successful completion of BA 300 is required before students can participate in the program.
- A minimum cumulative GPA of 2.7 is required to participate.
- During the internship, the student will be required to submit periodic updates via Canvas and submit a final paper summarizing their internship experience.
- A grade of Satisfactory or E will be recorded on your transcript.
- Internship work commitments can be for one or multiple semesters and is negotiated between student and the employer.
- Internship Certificates will be awarded to students completing six hours of COB internship credit.

Students enrolled in BI 350, BI 450, or BI 470 are considered to be full-time by the College of Business. Students must get permission from the Internship office to elect up to two courses while on internship.

Students enrolled in BI 355, BI 455, or BI 475 are considered to be part-time by the College and are expected to manage their overall course load in a manner that is consistent with the employer’s needs and the needs of the student.

For the BBA degree, up to six internship credit hours can be applied to elective courses.

Students also have the option of registering for BI 360, which is a zero credit internship. Students who have already completed their elective requirements but still want to participate in the internship program can do so by registering for this option when they go on the internship.

Additional information regarding the Internship Program, please visit their website at: cob.umd.umich.edu/internship.
Additional Academic Information

OFFICE OF STUDENT SERVICES

The Office of Student Services helps students make informed decisions about their course of study. To provide this help, the Office offers students current and accurate information on College of Business academic policies and procedures, coordinates academic advising, provides necessary College forms and materials, and reviews students’ academic progress and performance at specified intervals.

The Office offers a systematic program of guidance and advising from admission through graduation. Advising occurs in many forms and at various levels. All newly admitted students are required to attend an orientation advising session prior to their registration in the College. Pre-business students with 60 credits will be required to meet with their advisor each subsequent term until they have declared their major in the BBA degree program. In addition, BBA students, upon reaching 85 credit hours are required to schedule a degree audit advising appointment.

CHANGES IN COURSE ELECTIONS: ADD, DROP, WITHDRAWAL

Add

A student may add courses during the first two weeks of a full term or the first week of a half term or mini-term. Refer to the Office of Registration & Records website at http://www.umich.edu/rr_registration for procedures and dates. Any exceptions for adding courses must be approved by the Academic Standards Committee of the unit in which the student is enrolled.

Drop

A student may drop courses during the first two weeks of a full term or the first week of a half term or mini-term without penalty. Courses may be dropped during the third through the ninth week of a full term, and through the fourth week of a half term. Refer to the Office of Registration & Records website at http://www.umich.edu/rr_registration for procedures and dates.

Students enrolled in a business internship (BI) course are not allowed to drop or withdraw from the course without approval from the Internship Director. Approval to drop courses under circumstances other than stated above will require the approval of the Academic Standards Committee of the College of Business. Petitions to drop a class after the ninth week of a full term or the fourth week of a half term will be considered only under extreme circumstances beyond a student's control, such as illness under the care of a physician which precludes class attendance for periods in excess of a week. Documentation will be required. Failure to receive approval will result in a grade(s) of E for the course or courses.

Withdrawal

Refer to this topic under Campus Policies and Procedures in the General Information section of this Catalog.

COURSE PREREQUISITES

The faculty has determined the appropriate prerequisites for each course. These prerequisites exist to make sure the student has the specific background necessary not only to minimally complete the course, but also to assure a broad enough background so the student fully benefits from the course. Students must observe all prerequisites in course planning.

GRADING SYSTEM

Refer to this topic under Campus Policies and Procedures in the General Information section of this Catalog.

PASS/FAIL GRADING OPTION

Students enrolled in the College of Business may elect courses with the pass/fail grading option subject to the following conditions:

This option may not be elected by students on academic probation.

Courses to be taken under this option must be specified at the time of registration or within the regular period for adding courses.

Only courses included in the Liberal Arts distribution or to be applied as elective credit may be elected on a pass/fail basis.

In a course offered exclusively on a pass/fail basis, a passing grade will be recorded as S (and not used in computing a student's grade point average), and a failing grade will be recorded as E (and used in computing grade point average). In a course offered with a pass/fail option, a reported grade of C- or above will be recorded as P, and a reported grade of below C- will be recorded as F. (Whether a P or F is recorded, the grade is not used in computing a student's grade point average.) A student may elect at most two courses on a pass/fail basis, excluding internship courses. Courses which are elected on a pass/fail basis in a manner that does not conform to these guidelines will not accrue toward the degree requirements of the student.

Changing from the pass/fail option to a letter grade or vice versa is not permitted after the first two weeks of a full term or after the first week of a half term.

ABSENCE FROM FINAL EXAMINATIONS

Refer to this topic under Campus Policies and Procedures in the General Information section of this Catalog.

INCOMPLETE COURSEWORK

It is the College of Business students’ responsibility to obtain a contract for any incomplete coursework request, regardless of which academic unit the courses is in. Refer to this topic under Campus Policies and Procedures in the General Information section of this Catalog.

ACADEMIC STANDING

Refer to this topic under Campus Policies and Procedures in the General Information section of this Catalog.

Good Scholastic Standing

To be in good scholastic standing, a student must have a 2.0 cumulative grade point average in all UM-Dearborn coursework, in their major, and in all courses offered by the College of Business.
Unsatisfactory Performance

The records of students enrolled in the College of Business are reviewed at the end of each term by the Academic Standards Committee. Two degrees of scholastic deficiency will be used by the committee to identify a student's unsatisfactory performance resulting from D and E grades:

- **Probation**
- **Withdrawal**

Probationary status will be assigned to students who are not in good scholastic standing (cumulative, College of Business, and/or major grade point average below 2.0) but whose records indicate a possibility for removal of deficiencies by continued enrollment. Students are informed of their academic status and required to schedule an advising appointment.

Students whose academic records are so poor as to indicate little possibility of successful completion of their program will be required to withdraw from the College of Business. If the student is enrolled in coursework at the time the withdrawal decision is made, the withdrawal is effective immediately. The student will be informed, in writing, and that term's tuition assessment will be adjusted to zero.

**D Grades**

While any D grade (D-, D, D+) is passing, it is not considered satisfactory performance. Any deficiency of grade points (below 2.0 overall average) resulting from one or more D grades must be made up before the student is restored to good standing. If the student receives a D grade in a course that is an important prerequisite for other courses, it is recommended that the course be repeated.

Credit is not transferable for courses in which D grades were earned in another college or university.

**E Grades**

Neither credit nor honor points are granted for a course in which a student receives a grade of E.

COURSEWORK AT OTHER INSTITUTIONS

After a student first enrolls in a degree program at UM-Dearborn, he or she may not ordinarily transfer credits from a course taken at another college or university to apply to the requirements of the UM-Dearborn degree. Exceptions to this policy require written permission from the College of Business Student Services Office prior to registration for the course(s).

REPEATING COURSES

Students may repeat a course up to two times for a total of three attempts. Regardless of whether it is higher or lower than the previous grade(s), the last grade assigned in a course will be used in computing the student's cumulative grade point average and credits earned toward degree. Please refer to this topic under Campus Policies and Procedures in the General Information section of this Catalog.

STATEMENT ON ACADEMIC INTEGRITY

The College of Business holds in high value integrity in all relationships and activities. As the College develops students for professional business careers, it must demand not only academic excellence, but academic honesty as well. Students engaged in academic misconduct hurt themselves, their fellow students, the reputation of the College and society as a whole. As such, a culture of zero tolerance for academic misconduct has evolved. Certainly, building a classroom environment that discourages academic misconduct before it surfaces is the ideal. While this can eliminate much of the opportunity for academic misconduct, it is not always sufficient. Consequently, policies that address academic misconduct must be developed. The College's policy is as follows:

- All cases of academic misconduct in which a faculty member deems is serious enough to penalize must be reported in writing to the Associate Dean. The report should include the student’s name, course, date, brief description of the offense, and the grade sanction. As has historically been the case, the faculty member has the right to decide what the appropriate grade sanction is.
- The faculty member must inform the student of the decision, and provide him/her with a signed copy of the report.
- The student has the right to appeal the decision through existing College and University channels. The Associate Dean will retain all reports of academic misconduct that have been upheld. Decisions are upheld in two ways: when they are not challenged by the student or when the faculty case has been supported through an appeals process.
- All cases are strictly confidential. With the exception noted below, COB faculty, staff and/or the Hearing Board will not have access to this information.
- The Associate Dean will remand any case of repeat academic misconduct by a College of Business student to the School's Academic Standards Committee for formal action. Except in the rarest of circumstances, two violations will result in expulsion from the College of Business.

PETITIONS FOR ACADEMIC ACTION

Each request to the faculty of the College of Business for special academic action relative to credits, requirements, standing, etc., should be entered on the appropriate petition form (available in the Student Services Office) and forwarded, with appropriate documentation, to the office for review by the Academic Standards Committee.

STUDENT ACADEMIC CONDUCT

A student in the College of Business or any student enrolled in a College of Business course will not engage in academic misconduct, including, but not limited to, plagiarism, cheating, fabrication, aiding and abetting dishonesty or falsification of records and official documents as defined in the Statement of Student Rights and Code of Student Conduct. Definitions of prohibited conduct, sanctions, procedures for applying sanctions, and appellate procedures are specifically set out in the Statement.

STUDENT PERSONAL CONDUCT

Any conduct which can be the grounds for civil or criminal lawsuit shall be subject to sanctions by the College of Business.

RIGHT OF APPEAL

Refer to this topic in the General Information section of this Catalog.

CHANGE OF DEGREE PROGRAM BETWEEN SCHOOLS

See Admission under Program Planning for UM-Dearborn Students. Information is available at the College Office.

CLASS STANDING
REFER TO THIS TOPIC UNDER CAMPUS POLICIES AND PROCEDURES IN THE GENERAL INFORMATION SECTION OF THIS CATALOG.

GRADE REPORTS
Refer to this topic under Reporting of Grades in the General Information section of this Catalog.

REQUESTS FOR TRANSCRIPTS
Refer to this topic under Transcripts in the General Information section of this Catalog.

SECOND BACCALAUREATE DEGREE FROM THE COLLEGE OF BUSINESS
Students that have already earned a BBA may apply to the Office of Undergraduate Admissions if they want to pursue a second degree. Students must meet current admission criteria. If admitted, a second baccalaureate degree will be granted to those students who meet the following minimum requirements:

Satisfactory completion of the BBA Precore, General Education Distribution, BBA Core, and Major coursework required for the degree sought.

Satisfactory completion of at least 33 semester hours of coursework while enrolled in the College of Business as a post-baccalaureate student; at least 21 hours of this coursework must be in courses offered by the College of Business.

Achievement of at least a 2.0 grade point average in all coursework and in courses offered by the College of Business.

INACTIVE STUDENT STATUS
A student may be inactive for a maximum of two consecutive terms and maintain eligibility to register. A student who is declared inactive as a result of not being enrolled for any coursework during a 12-month period must apply for readmission to the College. A decision on readmission will be based upon the past performance of the student and enrollment space available in the College at that time. Upon readmission, a student who has been inactive will be required to satisfy any program requirements that have been added in his/her absence.

ACADEMIC HONORS

Dean's List
A student is honored by inclusion in the Dean's List if he or she meets two conditions:
1. has completed at least 12 credit hours toward a degree during the term, and
2. has achieved a 3.50 or better term GPA. The Dean's List is compiled after the fall, winter, and summer terms.

Beta Gamma Sigma
Beta Gamma Sigma is the national honor society for business schools accredited by AACSB-The Association to Advance Collegiate Schools of Business. Membership in Beta Gamma Sigma is one of the highest scholastic honors that a student in the BBA program 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 seniors in the top 10 percent of their class and juniors in the top seven percent of their class.

Honor Scholars
Every year, one honor scholar from each major is selected and recognized at the Annual Honors Convocation. Selection is made by the College of Business's Scholarship Committee based on the students' GPA and achievement of 90 credit hours or more toward degree.

CHANCELLOR'S MEDALLION
The Chancellor's Medallion is awarded at each Commencement Exercise to UM-Dearborn graduates including one from the College of Business. The student is selected by the Scholarship Committee based on his/her quality of character, vitality, intellect, integrity and academic record. The Fall awardee is selected from students who were graduated in August and those who are to be graduated in December. The Winter awardee is selected from students who are to be graduated in April/May.

GRADUATION WITH DISTINCTION
Students who are degree candidates in Business and have obtained a cumulative GPA of at least 3.20 but less than 3.60 are recommended for graduation "With Distinction." Such distinctions are noted on transcripts and diplomas.

GRADUATION WITH HIGH DISTINCTION
Students who are degree candidates in Business and have obtained a cumulative GPA of at least 3.60 are recommended for graduation "With High Distinction." Such distinctions are noted on transcripts and diplomas.

ACCOUNTING (ACC)

COURSE OFFERINGS

ACC 298 Financial Accounting
3.000 Credits
Must be enrolled in one of the following Classes:
Senior
Sophomore
Graduate
Junior
Prerequisites: (MATH 104* or MATH 105* or MPLS 115 or MATH 113* or MATH 115* or MPLS 116)

The first course, of a two-course sequence, to introduce accounting concepts, principles, financial statement preparation, and the uses of accounting information. Topics include fundamental concepts and procedures of financial accounting including income measurement, asset valuation, financial statement preparation and analysis, and uses of accounting information for decision making.

ACC 299 Managerial Accounting
3.000 Credits
Prerequisites: ACC 298
To introduce managerial accounting concepts and applications. Specific topics include: cost terminology, cost behavior, product costing systems, budgeting, standard costing systems and variance analysis, and cost allocation methods. To connect the materials in this course to concepts covered in the prerequisite course, ACC 299 begins with financial statement analysis. Discussion of ethics and globalization issues will be interwoven into the presentation of course materials.

**ACC 304 Auditing & Forensic Examinations**
3. 000 Credits
Must be enrolled in one of the following Colleges:
- Coll of Engineering & Comp Sci
- College of Business
- Coll of Arts, Sciences & Letters
Must be enrolled in one of the following Classes:
- Senior
- Junior
Prerequisites: ACC 298

To study forensic examination and investigation techniques including typical embezzlement and financial statement fraud scenarios, fraud risk factors, sources and uses of evidence, and interrogation and surveillance techniques. Specifically, the course presents an introduction to forensic accounting and fraud examination by studying the nature of fraud, how it is committed, and the motivations of those who defraud an organization, owners, and capital markets. Fraud detection includes the recognition of fraud symptoms and approaches to act on those symptoms. Fraud investigation includes the examination of a fraud act, methods used to conceal the act, and other methods specific to detect various types of fraud. Other course topics may include expanding assurance services, advanced internal control testing, and risk based investigations. Special attention will be given to the changing role and services offered by internal auditors and fraud examiners, and responsibility to the public.

**ACC 355 Cost Accounting and Analysis**
3. 000 Credits
Prerequisites: ACC 299

To study the development, analysis and interpretation of accounting information for planning and controlling costs and revenues. Topics include: cost concepts, cost behavior, product costing systems, cost allocation systems, budgeting, standard costs and variance analysis and performance evaluation techniques.

**ACC 356 Asset Accounting**
3. 000 Credits
Prerequisites: ACC 299

To study accounting theory and financial statement presentation underlying assets and income determination. Topics include: cash, marketable securities, receivables, inventories, plant assets, natural resources, intangibles and long-term investments.

**ACC 357 Equity Accounting**
3. 000 Credits
Prerequisites: ACC 356

To study accounting theory and financial statement presentation underlying equities and income determination. Topics include non-current liabilities, bonds, stockholders' equity, revenue recognition, accounting changes, dilutive securities and earnings per share, income tax allocation, pensions, leases and the statement of cash flows.

**ACC 358 Financial Reporting**
3. 000 Credits
Prerequisites: ACC 298 or (ACC 296 and ACC 297)

This course provides an intermediate level analysis of financial accounting focusing on recognition, measurement, and reporting issues associated with assets, liabilities and owner equity in conjunction with related income determination questions. The course is designed for financial statement information users who need a level of sophistication beyond an introductory level, yet not the complete technical expertise of a financial accountant. (YR)

**ACC 360 Federal Income Taxation**
3. 000 Credits
Prerequisites: ACC 299

To acquaint the student with the federal income tax, tax research, tax planning, and application of tax laws to taxable entities. The course will introduce the student to a broad range of tax concepts within a framework of financial accounting principles. Emphasis will be placed on the taxation of business entities, individual taxpayers, and the differences between financial and tax accounting. The use of technology to research problem assignments will be used to develop students' business communication and problem solving skills.

**ACC 380 Accounting Information Systems**
3. 000 Credits
Prerequisites: ACC 299 and ACC 381*

To study the concepts, theory, organization and application of accounting information systems and the flow of accounting data through transaction cycles. Topics include: the principles of accounting systems design, internal control analysis and development and the overall evaluation of networked computer-based accounting systems. Emphasis is placed on transaction processing systems, internal control systems, and computer-assisted decision making for unstructured problems by employing accounting databases.

**ACC 381 Accounting Info Sys Lab**
1. 000 Credits
Must be enrolled in one of the following Colleges:
- College of Business
Must be enrolled in one of the following Classes:
- Sophomore
- Senior
- Junior
Prerequisites: ACC 299 and ACC 380*

ACC 381 is a lab component of ACC 380. Students will complete weekly laboratory assignments to reinforce the concepts of ACC 380 to use information technology to solve business problems. In addition, the use of several common applications (e.g., Word, Excel, Access, and PowerPoint) will also be covered at the beginning to advanced levels.

**ACC 403 Controllership**
3. 000 Credits
Prerequisites: ACC 355 and (ACC 356 or ACC 358)

Controllership is intended to equip students with both theoretical and practical tools to manage all significant facets of production process costs, revenue streams, budgeting, and the related reporting system. The course focuses on topics such as managing "upstream" cost, cost structures, control tools, establishing standards, reporting processes, analysis to improve per unit profitability, and budgeting. The above topics will be used to develop resource plans to achieve management's objectives. (YR)
ACC 416  Advanced Accounting
3. 000 Credits
Prerequisites: ACC 357
To study selected advanced accounting topics which may include partnerships, business combinations, consolidated financial statements, multinational accounting and reporting, accounting for financial distress situations and regulation of accounting by the SEC. Students will not receive credit for both ACC 416 and ACC 516.

ACC 438  Advanced Federal Income Tax
3. 000 Credits
Prerequisites: ACC 360
To study the basic Federal income tax provisions relating partnerships, estates and trusts and corporations. Topics include: formation of the partnership, partnership distributions, tax-free incorporation, incorporations, corporate distributions, redemptions, liquidations, reorganizations, accumulated earnings tax, net operating losses and S corporations.

ACC 439  Not-for-Profit Accounting
3. 000 Credits
Prerequisites: ACC 356
To study the principles and procedures of accounting for not-for-profit entities. Topics may include: state and local government financial accounting, financial accounting for selected other entities, managerial concepts and current issues. Students will not receive credit for both ACC 439 and ACC 539.

ACC 457  Auditing
3. 000 Credits
Must be enrolled in one of the following Classes:
Senior
Graduate
Prerequisites: ACC 380 and (ACC 356 or ACC 358)
To study generally accepted auditing standards, internal control, principal audit objectives, the structure of audit programs, audit procedures, professional legal liability, ethical standards, statistical sampling techniques, the audit of EDP systems, auditor's report and management letters. Senior standing and 12 hours of Accounting coursework, exclusive of taxation, which includes at least 6 hours beyond ACC 299 taken in the School of Management.

ACC 480  Information Tech Eval & Control
3. 000 Credits
Prerequisites: (ACC 380 or MIS 310) and ACC 457*
The course emphasizes the control and evaluation of information systems to ensure accounting and management financial reporting and information processing objectives are accomplished. The course covers the theory of control evaluation, design of internal control, and the evaluation of internal controls in traditional and emerging information technology environments. Emphasis will be placed on current technologies in use by business organizations, emerging technologies, and the application of current profession guidance to evaluate existing and proposed information systems. (YR)

ACC 482  Seminar: Accounting
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior
To provide students with an opportunity for intensive study in current areas related to the research activities and/or professional activities of faculty members. Permission of College of Business.

ACC 492  Research: Accounting
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior
To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Permission of the College of Business.

Aviation Management (AVM)

COURSE OFFERINGS

AVM 400  Aviation Grd Op/Qual Assurance
3. 000 Credits
May not be enrolled in one of the following Degrees:
Bachelor of Business Admin
This course will study the processing and management of passengers, cargo, aircraft, equipment, and facilities at airports; and the current and future trends for using a quality management system such as ISO 9000 in the aviation industry. Credit cannot be applied to College of Business degree programs. (F, W)

AVM 410  Aviation Bus, Fin & Law
3. 000 Credits
May not be enrolled in one of the following Degrees:
Bachelor of Business Admin
This course will discuss and examine airports as a business, the source of capital funds, revenues, legal requirements and issues that impact airports and airlines. Credit cannot be applied to School of Management degree programs. (W, S)

Business Administration (BA)

COURSE OFFERINGS

BA 100  Business in a Changing World
3. 000 Credits
May not be enrolled in one of the following Major fields of study:
Accounting
Management
This interdisciplinary course introduces students to how business works. The course emphasizes hands-on, interactive learning. Students will learn about emerging issues and career opportunities in business areas.
This course focuses on providing students with the necessary skills to achieve their career goals. Topics include: laying the groundwork to selecting a career, developing job search correspondence, developing job search techniques, developing a networking strategy, developing interviewing skills, asking for references and recommendations, and evaluating and negotiating job offers. Students will be required to develop a job skills portfolio which will include documentation evidencing the application of these skills.

BA 320  Proj Mgmt & Leadership Skills
3. 000 Credits
Must be enrolled in one of the following Classes:
Senior
Junior

This course is intended to be a writing intensive problem based interdisciplinary course in project management skills. Topics covered will include benefits of project management, definition of a project, development of a project plan, execution of a plan, and management of change. Leadership skills will be emphasized as they relate to conflict resolution, motivating and coaching team members and listening to team members. Students will complete and present a project plan using the appropriate project management and presentation software.

BA 330  Managerial Communication
3. 000 Credits
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: COMP 106 or COMP 220 or COMP 270 or CPAS 40

This course is designed to improve the student's ability to communicate effectively within an organizational setting. Communication theory, strategies, techniques and skills that are essential for success in the business environment will be examined. Specific objectives during the semester will be to examine and improve managerial writing ability and to enhance interpersonal communication skills.

BA 400  Corporate Responsibility
3. 000 Credits
Must be enrolled in one of the following Levels:
Graduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: COMP 280 or COMP 106 or COMP 220 or COMP 270 or CPAS 40

The focus of this writing intensive interdisciplinary course will be on examining the responsibility, if any, that business should have as part of the solution to the challenges of globalization. As part of this examination, the course will focus on corporate responsible behavior and its relationship to corporate governance and maximizing shareholder value. The ethical, business, and legal cases as they relate to corporate responsible behavior in the areas of human rights, labor, environment, and corruption will be examined.

BA 480  Seminar: Bus Administration
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Classes:
Senior

To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members.

BA 490  Research: Bus Administration
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business

To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit.

Business Economics (BE)
COURSE OFFERINGS

BE 401  Managerial Economics
3. 000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Classes:
Senior
Undergraduate NCFD
Junior
Prerequisites: ECON 202 and ECON 201 and (MATH 104* or MATH 105*)

This intermediate level course presents price theory with business applications. Topics include consumption utility theory, production and cost theory, market structures and pricing strategies. Statistical estimation techniques of economic models are presented as well as modern elaborations of price theory. (YR)

BE 403  Business Conditions Analysis
3. 000 Credits
Prerequisites: ECON 201 and ECON 202

To study the basics and recent developments in aggregate economic theories and their applications from business perspectives. Topics include various sectors of aggregate demand and supply and related variables affecting economic performance and conditions.

BE 487  Seminar: Business Economics
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior

To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business
To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Permission of College of Business.

**Business Internship (BI)**

**COURSE OFFERINGS**

**BI 350 Business Internship**
3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business

The internship provides full-time, paid business experience for students in a formal, monitored program. Participating employers hire students within parameters set by the internship program. Students are required to submit a report and other paperwork at the end of each work assignment and participate in an evaluative session with the internship staff.

**BI 355 Part-Time Business Internship II**
1. 000 Credits
Must be enrolled in one of the following Colleges:
Bachelor of Business Admin
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: BI 350

The internship provides part-time, paid and unpaid business experience for students in a formal, monitored program. Participating employers hire students within parameters set by the internship program. Students are required to submit a report and other paperwork at the end of each work assignment and participate in an evaluative session within the internship staff. (A maximum of 6 credit hours of internship course work may be applied toward elective graduation requirements.)

**BI 460 International Business Intern**
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
May not be enrolled in one of the following Major fields of study:
Prebusiness
Must be enrolled in one of the following Classes:
Senior
Junior

The internship allows flexibility to engage in applied practical work experience outside of the United States, through paid or unpaid and full or part time work experiences. Participating organizations hire students within parameters set by the Internship Office throughout their experience. Students are required to submit reports, evaluation documents and participate in an assessment session with the internship staff. Students are responsible for their own legal, housing and transportation issues. This course will satisfy general elective credit.

**BI 470 Business Internship III**
3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
May not be enrolled in one of the following Major fields of study:
Prebusiness
Prerequisites: BI 450

The internship provides full-time paid business experience for students in a formal, monitored program. Participating employers hire students within parameters set by the internship program. Students will have an increasing level of responsibility and application of academic knowledge, or students will be involved with application of new academic knowledge. Students are required to submit a report and other paperwork at the end of the work assignment and participate in an evaluative session with the internship staff.

**BI 475 Part-Time Bus Internship III**
1. 000 Credits
Must be enrolled in one of the following Degrees:
Bachelor of Business Admin
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: BI 450

The internship provides part-time paid and unpaid business experience for students in a formal, monitored program.
Participating employers hire students within parameters set by the internship program. Student will have an increasing level of responsibility and application of academic knowledge, or students will be involved with application of new academic knowledge. Students are required to submit a report and other paperwork at the end of each work assignment and participate in an evaluative session within the internship staff. (A maximum of 6 credit hours of internship course work may be applied toward elective graduation requirements.)

Business Policy and Strategy (BPS)

COURSE OFFERINGS

BPS 451 Strategic Management
3.000 Credits
Must be enrolled in one of the following Classes:
Senior
Prerequisites: FIN 401 and (MIS 310 or ITM 310 or ACC 380) and OB 354 and MKT 352 and OM 400

This course is intended to be a comprehensive and integrative capstone course for the undergraduate business student. The central focus of this course is strategic management as opposed to the functional orientation that the student has experienced in most of his/her previous courses. Emphasis is on strategy formulation and implementation. Topics covered include the analysis of a company's external and internal environment; the development of a strategic vision and organizational objectives; the design of strategy at the functional, business, corporate, and international levels; and the creation of the organizational structure, operational policies and procedures, and reward systems.

Decision Sciences (DS)

COURSE OFFERINGS

DS 300 Quantitative Model and Analyis I
3.000 Credits
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: (MATH 113 or MPLS 116 or MATH 115)

To introduce fundamental concepts and methods in data analysis, probability, estimation, and statistical inference for application in management and management science. Topics include: basic probability theory, discrete and continuous random variables and distributions, sampling and data analysis, sampling distributions, estimation, confidence intervals and hypothesis testing, introductory regression analysis and utilization of statistical software packages.

DS 350 Quantitative Model and Analyis II
3.000 Credits
Prerequisites: DS 300

To continue from DS 300, during the first half of the course, the study of the concepts and methods in data analysis and statistical inference, as well as to introduce, in the second half of the course, basic linear optimization methods and models applied in the formulation, quantification, analysis, and solution of management decision problems. Topics include: simple and multiple linear regression, analysis of variance, sampling, correlation, formulation and solution of linear programming problems, transportation and transshipment models, utilization of software packages for statistical analysis and optimization.

DS 425 Optimization Modeling and Analy
3.000 Credits
Prerequisites: DS 350

To continue, from DS 350, the study of optimization methods and models applied in the formulation, quantification, analysis and solution of management decision problems. Topics include: network analysis (including PERT-CPM), goal and multi-objective linear programming, integer programming, dynamic programming, Markovian decision processes, nonlinear programming.

DS 426 Introduction to Simulation
3.000 Credits
Prerequisites: DS 350

To introduce the concepts and methods of discrete-event simulation for the modeling and analysis of complex systems. Topics include: basic simulation modeling, modeling complex systems, simulation languages, selection of input probability distributions, random-number generators, generating random variable values, output data analysis for a single system, statistical techniques for comparing alternative systems, validation of simulation models, variance-reduction techniques, experimental design and optimization.

DS 489 Seminar: Decision Sciences
1.000 TO 3.000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Senior

To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business is required.

DS 499 Research: Decision Sciences
1.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
Senior

To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available from the school office. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit.

Entrepreneurship (ENT)

COURSE OFFERINGS

ENT 400 Intro to Entrepreneurship
3.000 Credits
Must be enrolled in one of the following Classes:
Senior
Graduate

This course describes the entrepreneurial process and explores issues, concepts, and procedures involved in conceiving of, planning for, and creating a new business. It emphasizes the need for careful identification of products or services to be offered, specification of the target market(s), and the benefits the enterprise will provide to prospective customers, determining resource requirements, locating resource providers, and
developing essential operating and administrative systems. Students will identify an actual business venture they are considering, develop a business plan, and present that plan at the end of the term. (YR)

Finance (FIN)
COURSE OFFERINGS

FIN 200  Personal Finance
3. 000 Credits
College of Business
May not be enrolled in one of the following Classes:
   Junior
   Senior
   Graduate

To survey financial planning for the individual. Topics include: bank relations, credit, borrowing money, savings, budgeting, investments, stocks and bonds, mutual funds, insurance, real estate, annuities, social security, income taxes, wills, trusts and estate planning.

FIN 401  Corporate Finance
3. 000 Credits
Prerequisites: (ACC 297 or ACC 298) and DS 300 and ECON 201 and ECON202

Introduces the financial goals of a corporation with particular attention to the creation of value. The time value of money and the valuation of financial and real assets receive particular attention. Additional topics include risk and return, market efficiency, short-term financial management, and the domestic and international economic environments.

FIN 402  Advanced Corporate Finance
3. 000 Credits
Prerequisites: FIN 401

To provide the study of advanced topics, with particular attention to capital structure and dividend policy. Additional topics such as hedging, option pricing, agency theory, methods of financing, and corporate control will be presented. Global aspects of these topics will be addressed where appropriate. (YR)

FIN 407  Investment Fundamentals
3. 000 Credits
Prerequisites: FIN 401

To study the current investment scene and analyze the characteristics of securities and the role in investment strategies. Topics include: securities markets, bonds, stocks, options, investment strategies, portfolio theories and management.

FIN 443  Com Bank: Functn and Operatns
3. 000 Credits
Prerequisites: FIN 401

The topics to be included in the course are: commercial bank management, loan portfolio management and international banking. Specific aspects of the commercial banking environment, such as legislation and regulation, are also covered.

FIN 445  Corporate Fin Models and Apps
3. 000 Credits
Prerequisites: FIN 402

This course focuses on the analysis of financial decisions by applying theories and models to practical problems and cases. The subject coverage includes capital budgeting and financing (cost of capital, capital structure, dividend policy, etc.), working capital management (credit, inventory, bank relations, etc.), and other special topics (e.g., mergers and acquisitions). The coursework is appropriate for students seeking careers in corporate financial management, commercial lending, and investment banking.

FIN 447  Derivative Markets
3. 000 Credits
Prerequisites: FIN 401 and (FIN 402 or FIN 407 or FIN 443 or IB 441)

Going beyond investment fundamentals, the focus of this course is on the more speculative aspects of investment. Speculative securities (such as options, warrants, and convertibles) and commodity futures (including financial and currency futures) are covered. The structure of the speculative markets and the role of speculation, such as hedging, risk-shifting, and the establishment of future-spot price relationship are analyzed in the context of a competitive market environment.

FIN 448  Real Estate Financing
3. 000 Credits
Prerequisites: FIN 401

The purpose of this course is to introduce the student to the different types of mortgages, the sources of real estate loans and the workings of the secondary mortgage markets. It will also cover the application, loan processing, underwriting, and closing processes as well as closely related topics such as property appraisal and insurance, title insurance, and foreclosures.

FIN 456  Fixed Income Securities
3. 000 Credits
Must be enrolled in one of the following Colleges:
   College of Business
   Finance

Must be enrolled in one of the following Major fields of study:
   Senior
   Junior
Prerequisites: FIN 407 and FIN 447 and (MATH 113 or MATH 115 or MPLS 115)

The fixed income market, accompanied by the introduction of sophisticated financial engineering techniques, has grown enormously over the last two decades. Today, the fixed income market has been a vital segment of the global financial market. This course covers major topics associated with this market, including bond pricing, yields, and volatility; term structure of interest rates and yield curve; market structure and analytical techniques for Treasury, municipal, corporate bonds, mortgage-backed securities, asset-backed securities, and bond with embedded options. The fundamental objective of this course is to help students develop analytical skills for pricing fixed income securities and managing interest rate risk. In addition, materials covered in this course are compatible with the Common Body of Knowledge in Analysis of Debt Investments that is required by the Chartered Financial Analysts (CFA) examination. Students will not receive credit for both FIN 456 and FIN 656.

FIN 484  Seminar: Financial Management
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
   College of Business
   Must be enrolled in one of the following Classes:
   Senior
Prerequisites: FIN 401
Human Resource Management (HRM)

COURSE OFFERINGS

HRM 305 Human Resource Policy/Admin
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Sophomore
Freshman

To examine personnel policy making and administration relative to the achievement of the objectives of the firm through the eyes of general management. Topics include: recruitment and selection, wage and salary administration, training, evaluation, discipline and industrial relation activities. Cases are analyzed.

HRM 406 Staffing, Training & Develop
3.000 Credits
Prerequisites: HRM 405

The course examines how to design, administer, and evaluate employee staffing, selection, training, and development activities that support organizational strategies. The course is geared both toward those who are or will be (a) HR managers who will develop and administer staffing and training programs and (b) managers in other functional areas who want to improve their personal effectiveness in selecting and developing employees. Key topics to be covered include: staffing strategy and planning; job design and analysis; external and internal recruiting; employee testing and assessment methods; interviewing; measurement, validation, and decision-making issues in selection; instructional design and delivery; methods for developing employees and managers; career management; laws and regulations affecting staffing and training; evaluation methods for staffing and training activities; and issues in staffing and training for an international workforce. (YR)

HRM 407 Compensation & Performance Mgt
3.000 Credits
Prerequisites: HRM 405

The course examines how to design, administer and evaluate compensation and performance appraisal programs that support organizational strategies. The course is geared both toward those who are or will be (a) HR managers who will develop and administer pay and appraisal programs and (b) managers in other functional areas who want to improve their personal effectiveness in administering pay performance appraisals. Key topics to be covered include: merit and incentive pay, methods for internally valuing jobs, external labor markets and job pricing, design and administration of pay structures, employee benefits, compensating executives and expatriates, purposes and measurement methods for performance appraisals, performance criteria, rater processes and biases, performance reviews, and team-based pay and performance. (YR)

HRM 408 Management-Union Relations
3.000 Credits
Prerequisites: HRM 405 and OB 354

To provide interpretation, insight, and understanding of the impact of management and union institutions on employee relations. Topics include labor union structure, aims, and operations, management objectives and functions, collective bargaining agreements, wage bargaining, industrial conflict and dispute settlements, labor relations legislation, and public intervention in management-union activities. A major portion of the course is devoted to a bargaining simulation exercise.

HRM 485 Seminar: Human Resource Mgmt
1.000 TO 3.000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior

To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business.

HRM 495 Research: Human Rsrch Mgmt
1.000 TO 3.000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior

To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit.
Information Technology Management (ITM)

COURSE OFFERINGS

ITM 120  Fundamentals of Info Systems  3.000 Credits
This course introduces the fundamental concepts of computer and information systems, and provides exposure to basic microcomputer application software. Topics include the function and architecture of computer hardware and software technologies, business application of computer and information technologies, and their organizational implications. Microcomputer applications include basics of operating systems, spreadsheet packages, graphics packages, and database management systems. Credit cannot be given for ITM 120 and any of MIS 120, CIS 121, 122, 123. (F, W, S)

ITM 301  Bus Application Programming  3.000 Credits
This course is an introduction to basic concepts in computer programming with an emphasis on business applications. In the course, students will develop an understanding of fundamental programming logic and learn to use basic programming structures to solve business problems. Students are introduced to program development cycle and programming principles. The course covers principles of program design, programming structures, data types and structures, program testing, and debugging. Emphasis is placed on the implementation of programs with procedural structures, along with graphical user interfaces and event driven code. Upon completion, students should be able to design, code, test, and debug programs based on business requirements using a selected programming language. Credit cannot be given for both ITM 301 and MIS 301.

ITM 302  Object-Oriented Programming  3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: ITM 301 or MIS 301
This course introduces the basic concepts of object-oriented programming with an emphasis on business applications. Students will develop an understanding of object-oriented modeling and learn to use object-oriented analysis and design techniques to solve simple business problems. Students are introduced to OO application development methodology and environment. The course covers principles of object-oriented programming, objects and classes, abstract data types, implementation of inheritance and polymorphism, database access, and graphic user interfaces. Upon completion, students should be able to design, code, test, and debug programs based on business requirements using a selected object-oriented programming language. Credit cannot be given for both ITM 302 and MIS 302.

ITM 310  Info Systems in Management  3.000 Credits
Must be enrolled in one of the following Classes:
Sophomore
Junior
Senior
Co-requisites: ITM 311
This course provides an overview of information systems in the business world. It presents an organizational view of how to use information technology to create competitive firms, manage global organizations, and provide useful products and services to customers. Topics include hardware, software, databases, telecommunications systems, the strategic use of information systems, the development of information systems, and social and ethical issues involved with information systems. Credit cannot be given for both ITM 310 and MIS 310.

ITM 311  Mgmt Information Sys Lab  1.000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Prerequisites: ITM 310*
Co-requisites: ITM 310
ITM 311 is a lab component of ITM 310. Students will complete weekly laboratory assignments to reinforce the concepts of ITM 310 to use information technology to solve business problems. In addition, the use of several common applications (e.g., Word, Excel, Access, and PowerPoint) will also be covered at beginning to advanced levels.

ITM 320  Database Systems II  3.000 Credits
Prerequisites: ITM 310 or MIS 310 or ACC 380
This course examines the processes and tools used to design and implement database systems in business. The goal of this course is to provide adequate technical detail while emphasizing the organizational and implementation issues relevant to the management of computerized data in an organizational environment. A class project involving the design and implementation of a database using a microcomputer database management system is performed. Topics include concepts of database systems, conceptual database design, logical database design, physical database design, database implementation, and data retrieval. Credit cannot be given for ITM 320, MIS 320 and CIS 420.

ITM 330  Info Systems Development  3.000 Credits
Prerequisites: ITM 310 or MIS 310 or ACC 380
This course provides a foundation in systems analysis and design concepts, methodologies, techniques, and tools. Students will learn to analyze an organizational problem, define user requirements, design an information system, and plan an implementation. Methodologies covered will include the traditional life cycle approach as well as newer methodologies such as object-oriented approach, joint applications development (JAD), and prototyping. A semester-long project gives students the opportunity to apply these techniques to a business problem. This project will use technologies such as a computer-aided software engineering (CASE) tool, a database management system (DBMS), or a fourth-generation language. Credit cannot be given for both ITM 330 and MIS 331. (F, W, S)

ITM 351  Networking and Collab Comp  3.000 Credits
Prerequisites: ITM 310 or MIS 310 or ACC 380
This course provides an introduction to data communication, networks, distributed processing and collaborative computing.
The course will study the technical and management aspects of computing networks and distributed systems supporting a wide range of organizational functions from organizational process to managerial strategic decision making, from personal to group to organizational computing. The applications of telecommunications in the work settings and management issues of telecommunications will be addressed. The social and organizational implications of the telecommunications technology are also examined. Credit cannot be given for both ITM 351 and MIS 351.

ITM 371 Managing Elec Commerce Syst
3.000 Credits
Prerequisites: ITM 310 or MIS 310 or ACC 380
This course focuses on technical and managerial issues that must be addressed for the successful deployment of information systems that use the infrastructure of the Internet to support electronic commerce. The course assumes an understanding of databases, computer networks and data transmission, and some experience in some programming language. Topics include business models for electronic commerce; standards, protocols and technical architecture of the Internet; wireless Internet; Internet security and cryptography; online payment systems; intelligent agents; legal, ethical, social and political issues in electronic commerce; globalization and electronic commerce; and electronic commerce applications. A class project involving the creation and management of an electronic commerce initiative is performed. (YR)

ITM 381 Info Systems Project Mgmt
3.000 Credits
Prerequisites: ITM 310 or MIS 310 or ACC 380
This course examines the management of information system projects in business organizations as well as human and organizational reactions to the changes brought about by new information systems. Topic include project planning, project controls, project reporting, information system projects and organizational change, factors affecting project success and failure, and project management software.

ITM 382 Advanced Computer Applications
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Prerequisites: ITM 120 or MIS 120 or ITM 310 or MIS 310
This is an advanced course in computer applications, decision modeling, and business problem-solving. Topics will include Visual Basic for Applications (VBA), pivot tables, user interfaces, and application manipulation techniques for both spreadsheet and database applications. Complex formulae will be introduced to enable students to create sophisticated models for solving nested and complex business problems. Credit cannot be given for both ITM 382 and MIS 382.

ITM 383 Info Technology Security
3.000 Credits
Prerequisites: ITM 310 or MIS 310 or ACC 380
This course provides a foundation of IT security, methodologies, techniques, and tools. The course will cover both the managerial and technical sides of IT security. Topics include: security costs and benefits, information assets, security threats, network attacks, security planning, incident response, disaster recovery, and training. Hands-on lab sessions, interactive lectures, discussions, and guest speakers will be used throughout the course.

ITM 431 Database Systems II
3.000 Credits
Prerequisites: ITM 321 or MIS 321
This capstone course will provide an opportunity for students to work as a member of a project team on a complex, real-world information systems project. The course examines the processes and tools used to develop, implement and administer database systems in business. A class project involving the development of a database using a client/server database management system in performed. Project management methodologies and tools used to manage complex information systems projects are also applied in the course.

ITM 491 Seminar: Manag Info Systems
3.000 Credits
Must be enrolled in one of the following Classes: Senior
To provide students with an opportunity for intensive study in currently elected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business

ITM 492 Research: Manag Info Systems
3.000 Credits
Must be enrolled in one of the following Classes: Senior
To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Permission of the College of Business.

International Business (IB)

COURSE OFFERINGS

IB 441 International Financial Mgmt
3.000 Credits
Prerequisites: FIN 401
The objective of this course is to orient students to the increasingly internationalized financial environment in which business operates. As such, it attempts to broadly survey topics that frequently confront decision makers in financial management. These topics include the balance of payment mechanism, international capital flow, international monetary system and financial institutions, the mechanics of foreign exchange markets, international credit and capital markets, and financial problems of multinational business.

IB 446 International Business
3.000 Credits
Must be enrolled in one of the following Colleges: College of Business
Must be enrolled in one of the following Classes: Senior
Designed as a survey course, International Business attempts to broadly cover the essential elements of international business. Topics will include: business in an international environment,
leagues, contracts, personal property, real estate, mortgages, lawmaking and enforcement processes. relations, unfair business practices, and an introduction to the landlord-tenant, wills and estates, insurance, employer-employee of personal business affairs. Top] coverd are: product safety regulation, contracts, personal property, real estate, mortgages, landlord-tenant, wills and estates, insurance, employer-employee relations, unfair business practices, and an introduction to the lawmaking and enforcement processes. This course is designed for the non-business student and Junior Graduate Sophomore Senior Must be enrolled in one of the following Classes: 3.000 Credits LE 252 Personal Business Law Must be enrolled in one of the following Classes: Senior Sophomore Graduate Junior This course is designed for the non-business student and includes business law topics of direct interest in the management of personal business affairs. Topics covered are: product safety regulation, contracts, personal property, real estate, mortgages, landlord-tenant, wills and estates, insurance, employer-employee relations, unfair business practices, and an introduction to the lawmaking and enforcement processes. This course explores issues of major importance to international banking. Topics discussed include the global banking environment, the operations of international commercial and investment banks, regulatory issues affecting the global banking industry, and international money and foreign exchange markets. The role, successes and weaknesses of multinational institutions for economic development are discussed along with the recently proposed reform measure. Students taking this course should expect to learn about the various categories of international lending and loan syndication, asset-related and project financing, international retail and private banking. They will gain skills in the various lending techniques practiced in global banking, and will obtain a better grasp of the problems facing international banking institutions today as a result of the continuous globalization of financial markets and the ever increasing consolidation of the industry. This course explores the social scientific theories on consumption and consumer culture as well as ethical/policy issues related to consumption and marketing. Topics will include: economic and sociological perspectives on consumer culture; the origins of consumer tastes, trends, and fashions; the psychology of happiness and how personal well-being is influenced by wealth, consumption, and materialism; and public policy concerns related to marketing and advertising. (YR) This course explores issues of major importance to international banking. Topics discussed include the global banking environment, the operations of international commercial and investment banks, regulatory issues affecting the global banking industry, and international money and foreign exchange markets. The role, successes and weaknesses of multinational institutions for economic development are discussed along with the recently proposed reform measure. Students taking this course should expect to learn about the various categories of international lending and loan syndication, asset-related and project financing, international retail and private banking. They will gain skills in the various lending techniques practiced in global banking, and will obtain a better grasp of the problems facing international banking institutions today as a result of the continuous globalization of financial markets and the ever increasing consolidation of the industry. To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Permission of the College of Business.

**Law and Environment (LE) COURSE OFFERINGS**

**LE 252 Personal Business Law**

3.000 Credits

Must be enrolled in one of the following Classes:

Senior Sophomore Graduate Junior

This course is designed for the non-business student and includes business law topics of direct interest in the management of personal business affairs. Topics covered are: product safety regulation, contracts, personal property, real estate, mortgages, landlord-tenant, wills and estates, insurance, employer-employee relations, unfair business practices, and an introduction to the lawmaking and enforcement processes. This course is designed for the non-business student and includes business law topics of direct interest in the management of personal business affairs. Topics covered are: product safety regulation, contracts, personal property, real estate, mortgages, landlord-tenant, wills and estates, insurance, employer-employee relations, unfair business practices, and an introduction to the lawmaking and enforcement processes.

**LE 452 The Legal Environment of Bus**

3.000 Credits

Must be enrolled in one of the following Classes:

Senior Junior Prerequisites: COMP 106

To introduce the management student to the functioning of legal systems and the effect of regulation on the business environment. Topics covered include an exploration of legal and ethical forces that impact the policy and practice of business in dealing with customers, employers, owners, and competitors.

**LE 453 Commercial Trans: Adv Topics**

3.000 Credits

Must be enrolled in one of the following Classes:

Junior Prerequisites: LE 452

To study additional topics and complete the survey of basic business law. Topics covered are the sales, commercial paper, and secured transactions sections of the Uniform Commercial Code, and the study of property, estate planning, insurance, and liability of professionals.

**Marketing (MKT) COURSE OFFERINGS**

**MKT 352 Mktg Principles and Policies**

3.000 Credits

Must be enrolled in one of the following Classes:

Senior Junior

An introductory course in the marketing activities associated with the free market system. The various components and functions of the marketing activities will be discussed in an integrated framework to provide insight into the role and scope of marketing in the business environment. The components and functions include: product development, pricing, promotion, distribution, consumer behavior and target market analysis.

**MKT 360 Marketing and Society**

3.000 Credits

Must be enrolled in one of the following Levels:

Undergraduate Senior Junior

Must be enrolled in one of the following Classes:

Senior Junior

This course explores the social scientific theories on consumption and consumer culture as well as ethical/public policy issues related to consumption and marketing. Topics will include: economic and sociological perspectives on consumer culture; the origins of consumer tastes, trends, and fashions; the psychology of happiness and how personal well-being is influenced by wealth, consumption, and materialism; and public policy concerns related to marketing and advertising. (YR)

**MKT 382 Understanding Customers**

3.000 Credits

Prerequisites: MKT 352

Students in this course will improve their ability to understand what customers want right now, what they are going to want in the future, and how to adjust the marketing mix to build lasting relationships with consumers. To do this, students will learn more advanced models of market segmentation, targeting, and product positioning. This course utilizes concepts developed in
the behavioral sciences (economics, marketing, psychology, sociology, and anthropology) and qualitative research techniques to understand and predict consumer behavior, and enhance students' ability to communicate effectively with target market segments.

MKT 402  Marketing Management
3. 000 Credits
Prerequisites: MKT 352 and ECON 201 and ECON 202
A case-oriented course in which the understanding and insights of the various components and functions of marketing learned in MKT 352 are applied to practical situations. Marketing decisions will be evaluated and decided for a series of real-life cases in a number of areas including: general marketing, pricing, promotion, distribution and market research.

MKT 434  Sales Mgmt & Personal Selling
3. 000 Credits
Prerequisites: MKT 352
The purpose of this course is to provide a general understanding of the practice of sales management. The course is designed to provide a basic framework of what sales managers actually do and how they solve problems they may encounter. Team presentations, case analyses and class discussion are used throughout the course to describe and explain the skills required of sales managers to achieve their objectives.

MKT 436  Business to Business Mktg
3. 000 Credits
Prerequisites: MKT 352
To develop an understanding of that area of marketing that addresses the needs of the organizational customer in industry, government and institutions. The special challenges of the industrial market that confront the marketing manager and sales personnel are discussed in the course. Topics include: assessing industrial marketing opportunities, the organizational buying process, formulating industrial marketing strategy and evaluating industrial marketing strategy and performance.

MKT 454  Marketing Research
3. 000 Credits
Prerequisites: DS 300 and MKT 352
To introduce marketing research concepts and techniques for collection, analysis and interpretation of data for marketing decisions. Topics include: problem definition, research design, questionnaire construction, sampling, attitude scaling, statistical analysis, presentation and evaluation of research findings. A field research project may be included.

MKT 455  E-tailing and Retailing
3. 000 Credits
Prerequisites: MKT 352
This course introduces students to significant issues and analysis frameworks of 21st century retailing strategy and management, including retailing over the Internet, or "E-tailing." E-tailing and retailers are challenged to enhance customer experience, customer service and customer satisfaction. The students will learn the complexities and nuances of shopper behavior, shopper demographics, and how shopper decisions are influenced by store design, store environment, store atmosphere and merchandising, in brick-and-mortar and Internet stores. The course will elevate and enhance students' readiness and advancement in retail, brand management and marketing careers.

MKT 456  Advg and Sales Promotion
3. 000 Credits
Prerequisites: MKT 352
A survey of the principles of advertising and sales promotion, which examines problems related to advertising management. Topics include: the scope of the advertising business, determination of objectives, strategy formulation, creating effective advertising programs, media planning with emphasis on integrating new media into the mix, the role of dealers in promotion, establishing the advertising budget, advertising research and the social and legal aspects of advertising in society.

MKT 457  Global Marketing
3. 000 Credits
Must be enrolled in one of the following Classes:
Sophomore  Senior  Junior
Prerequisites: MKT 352 and ECON 201 and ECON 202
To provide students with an understanding of the components of marketing in the international environment. A working knowledge of the environment and the complex inter-relationship between different components of marketing will be developed. The focus is on evolving a logical and integrated framework for international marketing decisions.

MKT 488  Seminar: Marketing
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior
To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business.

MKT 498  Research: Marketing
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business
Must be enrolled in one of the following Classes:
Senior
To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit.

Operations Management (OM)
COURSE OFFERINGS

OM 300  Intro to Operations Management
3. 000 Credits
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: MATH 104 or MATH 105 or MPLS 113
Concerned with the strategic, tactical and short-term managerial issues relating to the efficient production of services and
products. Examples of such issues are: manufacturing technology selection, facility location, strategic, tactical and operational planning and control and quality. (F. W. S)

OM 460  Supply Chain Management
3. 000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: OM 400

This course explores the basic concepts of managing flow of materials in a typical enterprise supply chain. Students will examine a complete overview of material flow, for internal and external suppliers, to and from the enterprise.

OM 465  Strategic Sourcing
3. 000 Credits
Must be enrolled in one of the following Classes:
Senior
Sophomore
Freshman
Junior
Prerequisites: OM 300

This course provides an in-depth analysis of the procurement process and supplier management with strong analysis placed on managing a supplier base for both products and services. Both theoretical and quantitative perspectives will be offered. In addition, topics will be addressed from strategic, financial and global perspectives.

OM 470  Analy & Desgn of Supply Chain
3. 000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: OM 400

The purpose of this course is to equip the student with the ability and the tools necessary to recognize, analyze, and resolve significant problems in the operation of a supply chain system through the application of quantitative techniques. This course focuses on the strategic role of the supply chain, key strategic drivers of supply chain performance, and the tools and techniques for supply chain analysis.

OM 475  Supply Chain Logistics Mgmt
3. 000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Prerequisites: OM 400

The overarching course objective is to develop an in-depth understanding of integrative managerial issues and challenges related to developing and implementing a firm's logistics strategy. Attention is directed to the logistical mission confronted by varied types of business organizations. Logistics is positioned as a value-adding process that achieves time and place synchronization of demand stimulation and operations fulfillment. Emphasis will be placed on challenges related to providing logistical support for procurement, manufacturing and market-distribution.

OM 480  ERP in SCM
3. 000 Credits
Must be enrolled in one of the following Classes:
Senior
Sophomore
Freshman
Junior
Prerequisites: OM 300 and ITM 310

This course provides in-depth coverage of the role and impact of enterprise resource planning (ERP) concepts in managing a supply chain. The design of a supply chain information system (SCIS) and its various components is explored utilizing ERP concepts in matching supply and demand through the implementation of an integrated enterprise. Both theory and applications are emphasized in the course. Hands-on experience in the development of some components of SCIS utilizing ERP systems is provided.

OM 483  Seminar: Operations Management
1. 000 TO 3. 000 Credits
Must be enrolled in one of the following Colleges:
College of Business

To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business.

OM 493  Research: Operations Management
1. 000 TO 3. 000 Credits
College of Business
Must be enrolled in one of the following Classes:
Senior

To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Permission of the College of Business.

Organization Behavior (OB)

COURSE OFFERINGS

OB 354  Behavior in Organization
3. 000 Credit
Must be enrolled in one of the following Classes:
Senior
Junior

To study the nature and dynamics of behavior within organizations from an open system theory viewpoint, emphasizing determinants and consequences of individual, interpersonal, small group and intergroup behavior. Group discussions and role-playing techniques will be used to develop leadership skills and methods and to foster understanding of applied problems in organizational behavior.

OB 401  Management Skills Development
3. 000 Credits
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: OB 354

This course provides an opportunity to study the concepts, problems and techniques of managing the human resources of an
organization with emphasis on application and skill building. Topics include: skills development for interviewing, counseling and appraising employees; work team leadership and development; group problem solving and decision making; management of intergroup relationship and conflict resolution.

**OB 402 Organizational Change & Devlp**

3.000 Credits

Prerequisites: OB 354

The purpose of this course is to introduce the theories, methods and practice of organizational change and development and to provide a conceptual framework for examples of planned change. Topics will include: processes of organizational change, intervention methods, sequencing and integration of change processes, change roles and role relations, change objectives and criteria for change.

**OB 485 Seminar: Organizational Behavr**

1.000 TO 3.000 Credits

Must be enrolled in one of the following Colleges:
- College of Business

Must be enrolled in one of the following Classes:
- Senior

To provide students with an opportunity for intensive study in current selected areas related to the research activities and/or professional activities of faculty members. Permission of the College of Business.

**OB 495 Research: Organizational Behvr**

1.000 TO 3.000 Credits

Must be enrolled in one of the following Colleges:
- College of Business

Must be enrolled in one of the following Classes:
- Senior

To provide the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the term when such a course is to be elected, an interested student must submit to the dean of the school a written request for permission to elect a research course, on a form available in the school office. The request will include a description of the proposed research project. The dean will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Permission of the College of Business.
College of Education, Health, and Human Services

Administration and Staff

Edward A. Silver, EdD, Dean
Mesut Duran, PhD, Associate Dean for Research and Administrative Affairs
Paul Fossum, PhD, Associate Dean for Academic Affairs
Paul Bielich, MLS, Instructional Learning Manager
Christopher Casey, BA, Instructional Learning Assistant
Karen Claiborne, MPA, Administrative Specialist
Becky Dresselhouse-Nauss, BA, Budget Analyst
Judy Garfield, Customer Service Assistant
Elizabeth Morden, Customer Service Assistant
Joann Otlewski, Regional School Registrar (Teacher Certification)
Catherine Parkins, BA, Customer Service Assistant
Robert Simpson, III, Systems Administrator
Carolyn Williams, Field Placement Coordinator

Academic Program Coordinators

Martha A. Adler, PhD, Coordinator, MA in Education
Bonnie M. Beyer, EdD, Coordinator, Educational Leadership Programs, Coordinator, Education Specialist, Co-Coordinator, Doctor of Education
Stein Brunvand, PhD, Coordinator, MA in Educational Technology
Christopher J. Burke, PhD, Co-Coordinator, Doctor of Education
Susan Everett, PhD, Coordinator, MS in Science Education
Paul Fossum, PhD, Coordinator, MA in Teaching
Seong Bock Hong, PhD, Coordinator, Early Childhood Program
Belinda Lazarus, PhD, Coordinator, Special Ed: LD/EI and Inclusion Specialist Programs
Julie Taylor, PhD, Coordinator, Social Studies Education

Professors Emeriti

Paul Carter, EdD, Professor of Education
Joseph Cepuran, PhD, Associate Professor of Public Administration
Claudia Collin, PhD, Assistant Professor of Education
Grace Kachaturoff, EdD, Professor of Education
Raymond P. Kettel, EdD, Associate Professor of Education
Greta B. Lipson, EdD, Associate Professor of Education
Richard Moyer, EdD, Professor of Science Education
Jane A. Romatowski, EdD, Professor of Education
Rosalyn Saltz, PhD, Professor of Education
Daniel G. Sayles, PhD, Associate Professor of Education
Mary Trepanier-Street, EdD, Professor of Education
Darlene Van Tien, PhD, Associate Professor of Education
Roger Verhey, PhD, Professor of Mathematics

Faculty

Christopher J. Burke, PhD, University of Illinois at Urbana-Champaign, Associate Professor of Science Education
Sara E. Byrd, PhD., University of Kansas, Assistant Professor of Special Education
Danielle DeFauw, PhD, Oakland University, Assistant Professor of Education
Mesut Duran, PhD, Ohio University, Professor of Education
Susan Everett, PhD, University of Iowa, Associate Professor of Science Education
Paul Fossum, PhD, University of Minnesota, Associate Professor of Education
Kirsten Dara Hill, PhD, Michigan State University, Associate Professor of Education
Seong Bock Hong, EdD, University of Massachusetts, Amherst, Associate Professor of Education
Kim Killu, PhD, Ohio State University, Associate Professor of Special Education
Belinda Lazarus, PhD, Ohio State University, Professor of Special Education
Gail R. Luera, PhD, University of Michigan, Associate Professor of Science Education
Nasser, Samar, PhD, Wayne State University, Research Assistant Professor
John B. Poster, PhD, University of Chicago, Professor of Public Administration and Education
Laura Reynolds-Keefer, PhD, University of South Carolina, Associate Professor of Educational Psychology
LaShorage Shaffer, M.Ed. University of Illinois at Urbana-Champaign, Instructor
Edward A. Silver, EdD, Columbia University, Professor of Education
Julie Taylor, PhD, University of Cambridge, Associate Professor of Education
Karen Thomas-Brown, PhD, University of the West Indies, Associate Professor of Education
Maiyoua Vang, PhD, University of California-Davis, Assistant Professor of Education

Cooperating Faculty

Nesrin Cengiz, PhD, Assistant Professor of Mathematics Education
Angela Krebs, PhD, Associate Professor of Mathematics Education
Judy Nesmith, MS, Senior Lecturer in Natural Sciences
Charlotte Otto, PhD, Professor of Chemistry
Margaret Rathouz, PhD, Associate Professor of Mathematics Education
Rheta N. Rubenstein, PhD, Professor of Mathematics Education
Michael Shelly, EdD, Lecturer in Mathematics

Early Childhood Education Center Staff

Seong Bock Hong, PhD, Faculty Director
Debbie Jones, MA, Site Director
LaShorage Shaffer, M.Ed., Special Needs Consultant
Jennifer Bauer, MA, Student Supervisor
Amy Szymaszek, BA, Teacher
Tammy Daigneau, BS, Teacher
Caryn Finklestein, MA, Lead Teacher
Catie Stone MA, Teacher
Our Work: Education, Health, and the Human Services

The College of Education, Health, and Human Services aims to prepare and sustain exemplary practitioners and administrators for work in the interrelated fields of education, human health, and human services. We do this through emphasis on scholarship, diverse clinical experiences, and practice in effective service delivery.

The College draws broadly upon institutional resources including faculty and programs in other colleges of the University. Additionally, facilities in local school districts, health-related settings, and other public agencies and private corporations regularly provide students with a spectrum of rich experiences.

The College contributes to the University of Michigan-Dearborn's identity as a dynamic metropolitan university where teaching and research interact to develop leaders and new knowledge in the tradition of the University of Michigan and in pursuit of impact in the metropolitan region.

Students in the College of Education, Health, and Human Services participate in the affairs of the unit in a variety of ways including programmatic advisory committees, student groups such as the Student Michigan Education Association (SMEA), and honor groups like the Phi Lambda Theta.

History of the College

Shortly after UM-Dearborn opened in 1959, a small teacher certification program was added to the liberal arts division. By 1969, under the leadership of its first faculty chairman, Paul D. Carter, the teacher certification program had grown into one of the largest academic departments on the campus. With the academic reorganization of the campus in the spring of 1973, the department became the Division of Urban Education with its own regently appointed associate dean, Richard W. Morshead. By 1987, the Division of Urban Education had become the School of Education led by Dean Morshead, and, soon, the School was granted authority to offer graduate programs, which expanded under subsequent deans John Poster (who served from 1990 to 2005), Paul Zionts (2005 to 2009), and Edward Silver (2010 to 2013). Graduate degree programs in the unit now include a MA in Early Childhood Education, an MA in Education, a MA in Educational Technology, an MA in Teaching, an MS in Science Education, an MA in Educational Leadership, an MEd in Special Education, an Education Specialist and a Doctor of Education. During the 2012-13 academic year, the Regents of the University of Michigan approved a change in the scope and the name of the School of Education, and, since September 1, 2013, the unit has been known as the College of Education, Health, and Human Services (CEHHS). The CEHHS fosters connectedness among the academic endeavors in the unit, providing a unique focus on the interrelated nature of education, human health, and human services. In this way, the College mirrors the intermingling of these spheres in the lives of the professionals who work within them, and addressing the historically fractured nature of the preparation of professionals in these critically important fields.

Accreditation

The College of Education, Health, and Human Services is a fully accredited professional unit of UM-Dearborn. Along with the rest of UM-Dearborn, it carries the approval of The Higher Learning Commission and is a member of the North Central Association of Colleges and Secondary Schools. As a teacher preparation institution, it is a member of the American Association of Colleges for Teacher Education, the Michigan Association of Colleges for Teacher Education, and the Teacher Education Council of State Colleges and Universities. In 2001 its certification programs were approved through the periodic review of the Michigan Department of Education.

Special Facilities and Services

In addition to campus-wide facilities and services described elsewhere in the Catalog, the following special facilities and services are of particular interest to education students.

EARLY CHILDHOOD EDUCATION CENTER

The Early Childhood Education Center (ECEC), an auxiliary unit of the College of Education, Health, and Human Services, serves as an education and care site for university student, faculty, staff, and community children. The ECEC enrolls over 200 children, ages one through six, per term. Located in a shared facility with Oakwood Hospital’s Center for Exceptional Families (CEF) at 18501 Rotunda Dr. in Dearborn, the two centers collaborate to provide services and programs for children with and without disabilities and their families. The ECEC facility also includes a full day kindergarten and summer programs. The ECEC serves as a teacher preparation facility for students enrolled in a variety of courses offered by the College of Education, Health, and Human Services. The ECEC Advisory Board makes recommendations to the administration regarding policies and decisions related to the center. The center is staffed with teachers having special training in early childhood education and is under the overall direction of a faculty director.
EDUCATION LABORATORIES

Curriculum laboratories are available to offer educational support to students in the areas of English/Language Arts (258 FCS), Science Education (270A FCS), Social Studies (268 FCS), and materials preparation (267 FCS). There is also a Mathematics Education Laboratory located in 2083 CB. These laboratories are designed to meet the needs of students and faculty in the College of Education, Health, and Human Services. These laboratories house an array of textbooks for elementary and secondary students, resource materials, and audiovisual equipment. Computers and other materials helpful in developing lessons with hands-on exploration of the subject matter are also available.

Students are encouraged to use the materials, equipment, and services the facilities provide when preparing for class preparations, practicum assignments, and student teaching. Students who have paid a laboratory fee for a specific course may use the laboratory without any additional charge. Students who have not paid a course fee must pay for the materials they use. Current prices are posted in the Materials Preparation Center. All fees are solely for the support of the Education Laboratories. Two microcomputer labs with the latest educational software are located in Rooms 190 and 194, FCS.

DEAN'S OFFICE

Edward Silver is Dean of the College of Education, Health, and Human Services. Paul Fossum and Mesut Duran are Associate Deans. The Office of the Dean is located in 253 Fairlane Center South Building (FCS), telephone (313) 593-5435.

STUDENT SERVICES OFFICE

The Student Services Office for The College of Education, Health, and Human Services is located in 262 FCS. All matters relating to College of Education, Health, and Human Services student records and teacher certification are handled in this office. Certification applications and advising appointments can be secured here, telephone (313) 593-5090.

FIELD PLACEMENT OFFICE

All matters related to pre-student teaching practica as well as student teaching are handled by the Field Placement Office (261 FCS), telephone (313) 593-5094.

Academic and Professional Standards

All matters in the College of Education, Health, and Human Services having to do with maintaining academic and professional standards are handled by the Professional Standards Committee or by the School's Executive Committee. The Executive Committee is responsible for acting in the place of the Governing Faculty on matters related to any of the School's instructional programs.

The Professional Standards Committee is responsible for acting on student petitions and other similar academic requests. Students may initiate petitions to the committee by securing appropriate forms in the Student Services Office. Such petitions must be signed by the student's education advisor before submission to the Professional Standards Committee. Both committees meet regularly throughout the academic year.

Policy Changes

College of Education, Health, and Human Services policies change periodically. This occurs when teacher certification and/or graduation requirements are changed by the Michigan Department of Education, by the wider campus community, or by the College of Education, Health, and Human Services itself. The primary responsibility for being aware of program requirements and for meeting appropriate standards rests with the student. Students are encouraged to review current policies, graduation, and certification requirements with their advisors through required annual advising. For information regarding academic advising see the General Information section of this Undergraduate Catalog.

Statement of Student Rights and Code of Student Conduct

The College of Education, Health, and Human Services adheres to the University policies regarding the Student Academic and Non-Academic Code of Conduct that were approved by the Senior Officers on May 11, 1994. Refer to this topic in the General Information section of this Undergraduate Catalog for further information.

In addition the College of Education, Health, and Human Services at the University of Michigan-Dearborn holds high value and expectations in all academic undertakings. As the College of Education, Health, and Human Services trains students to educate and serve as role models for future generations, it demands academic excellence and honesty. The values of an academic community are grounded in the honesty of one's efforts and respect for the efforts of others. Students who engage in academic misconduct have a pernicious effect upon themselves, their fellow classmates, the reputation of the College and the University, society, and the future generations that are taught by these individuals. Academic integrity is expected in all aspects of coursework, relationships with fellow students, and the use of all University resources. Procedures describing the processes of adjudication and the jurisdiction of the CEHHS Academic Hearing Board are described on the CEHHS Student Resources web page.

Bachelor's Degree Programs

The College of Education, Health, and Human Services provides undergraduate students with a number of different program options through bachelor's degrees. These degrees are intended for those wishing to acquire a teaching certificate at the elementary and secondary school levels or for those planning on working with children and families.

Individuals who successfully complete undergraduate degree programs in Elementary Education, Early Childhood Education, Elementary Learning Disabilities and Children and Families will receive their bachelor's degree directly through the College of Education, Health, and Human Services. Students completing Secondary Education programs receive a recommendation for their teacher's certificate through the College of Education, Health, and Human Services. Their degrees will be recommended by the College of Arts, Sciences, and Letters.
Undergraduate Degree Program Requirements

The College of Education, Health, and Human Services offers three different baccalaureate degrees: the Bachelor of Arts degree, the Bachelor of Science degree, and the Bachelor of General Studies degree. Where appropriate, these degrees have been combined with programs leading to the Michigan Provisional Teacher's Certificate.

BACHELOR OF ARTS (AB)
Ordinarily, this degree is available through the College of Education, Health, and Human Services to those seeking an elementary teaching certificate. To be recommended for the degree by the faculty, students must satisfy all appropriate residence requirements, distribution requirements, and program requirements. Students seeking secondary certification earn their bachelor’s degrees from the College of Arts Sciences and Letters; coordinated programs in the College of Education, Health, and Human Services result in the CEHHS faculty's recommendation for secondary certification.

BACHELOR OF SCIENCE (BS)
This degree is available through the College of Education, Health, and Human Services to those individuals seeking a teaching certificate with a major in one of the natural sciences or in mathematics. It will be granted to those students who earn 60 or more credit hours in mathematics, the natural sciences, computer science, or any combination of these, with at least 20 of these hours in upper division (junior-senior level) courses.

BACHELOR OF GENERAL STUDIES (BGS)
This degree is available to those wishing to pursue the Children and Families program. To be recommended for a BGS degree, a student must satisfy campus distribution requirements as well.

BGS: TWO PLUS TWO OPTION
Students who have completed an associate's degree in an approved area at a community college are eligible to apply for admission to the Bachelor of General Studies degree. Admission, however, is not automatic. Individuals are expected to meet the specific admission requirements for the particular BGS Two Plus Two programs into which they are seeking entry. Further professional and general education studies will be added at UM-Dearborn to those studies already completed by students at the community college level. To be recommended for the BGS degree under this option, students must satisfactorily complete all degree requirements called for by their particular College of Education, Health, and Human Services program.

Details regarding any of the programs cited above can be found in later sections of this Undergraduate Catalog.

Admission to the College of Education, Health, and Human Services

APPLICATION PROCEDURE
Individuals seeking a bachelor’s degree and recommendation to the Michigan Department of Education for a teaching certificate should apply through the UM-Dearborn Office of Admissions located in the University Center.

Residency Requirements for Transfer Students

All individuals entering the College of Education, Health, and Human Services as transfer students must complete a major part of their total college work in residence at UM-Dearborn. This limits the number of semester hours that are transferable to UM-Dearborn from other institutions. The maximum amount of transfer credit allowed in any such program will depend on the type of institution at which the credit originally was earned. Typically, more credit can be transferred from a four-year institution and used toward a degree program than from a community college. The admission criteria are applied to all students without regard to race, color, sex, national origin, or creed. The table below details the School's transfer credit policy.

In the table below, institutions attended by students prior to their enrollment in a degree program at UM-Dearborn are grouped into three categories. Category A includes all two-year institutions; category B includes all four-year institutions other than the schools and colleges of the University of Michigan (UM); category C is composed of those schools and colleges of the UM which are not located on the Dearborn campus. Maximum transferable credits and minimum residence requirements (both in semester hours) are given.
Courses at Other Institutions

Once admitted to UM-Dearborn and to the certification program, students are expected to complete their programs of study at UM-Dearborn. When documentable, extenuating circumstances occur, students must request permission to take off-campus courses using the established petition process in the College of Education, Health, and Human Services Student Services Office for re-evaluation. No course in which a student received less than a grade of C, or has been graded on a pass/fail or satisfactory/unsatisfactory scale, will be transferred. No courses elected in the professional component (education courses) during the freshman and sophomore years are admissible to the program, except as general elective credit. Transfer students must meet all residence requirements. The exceptions to this ruling are those persons who complete the Pre-Elementary Associate Degree or the Pre-Secondary Associate Degree at Henry Ford Community College.

Class Standing and Course Elections

The number of credit hours earned toward graduation at the end of any given term determines a student's class standing. In the case of transfer hours, only the credit accepted toward a degree can be used in deriving the class standing of a student. Freshmen and sophomores are classified as lower-division students while junior and seniors are considered upper-division students.

### Class Standing

<table>
<thead>
<tr>
<th>Categories of Previously Attended Institutions</th>
<th>Transferable Credits (Maximum)</th>
<th>Residence Requirement (Minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (only)</td>
<td>62</td>
<td>66</td>
</tr>
<tr>
<td>B (only)</td>
<td>75</td>
<td>53</td>
</tr>
<tr>
<td>C (only)</td>
<td>90</td>
<td>38</td>
</tr>
<tr>
<td>A and B (if attended in this sequence)</td>
<td>75 (62 from A)</td>
<td>53</td>
</tr>
<tr>
<td>A and C (if attended in this sequence)</td>
<td>90 (62 from A)</td>
<td>38</td>
</tr>
<tr>
<td>B and C</td>
<td>90 (75 from B)</td>
<td>38</td>
</tr>
<tr>
<td>A, B, and C (if attended in this sequence)</td>
<td>90 (62 from A, remaining from B &amp; C)</td>
<td>38</td>
</tr>
</tbody>
</table>

Courses successfully completed prior to transfer may not correspond exactly to those offered by UM-Dearborn or the UM. Therefore, a broad policy has been established to evaluate them. If, after such evaluation, the student believes that proper weight has not been given to the courses completed prior to transfer, the student should contact the College of Education, Health, and Human Services Student Services Office for re-evaluation. No course in which a student received less than a grade of C, or has been graded on a pass/fail or satisfactory/unsatisfactory scale, will be transferred. No courses elected in the professional component (education courses) during the freshman and sophomore years are admissible to the program, except as general elective credit. Transfer students must meet all residence requirements. The exceptions to this ruling are those persons who complete the Pre-Elementary Associate Degree or the Pre-Secondary Associate Degree at Henry Ford Community College.

### Academic Advising

Upon admission to a specific program in the College of Education, Health, and Human Services, each student is assigned a faculty advisor. This practice is aimed at helping the student plan a course of study that will fulfill the curriculum requirements in the most efficient manner.

Although all students are responsible for fully understanding the requirements of the programs they elect, they also are expected to meet regularly with their advisor. Undergraduates and others seeking provisional teaching certificates are required to meet with their College of Education, Health, and Human Services advisor at least once a year. This procedure ensures that all students are kept abreast of periodic modifications in the curriculum and in certification regulations. Teacher certification students enrolled in other academic units at UM-Dearborn such as secondary certification candidates with a concentration in the College of Arts, Sciences, and Letters are also expected to comply with this policy. Students may request an advisor assignment, or a change in advisor, by contacting the College of Education, Health, and Human Services Student Services Office.

### Academic Standards

#### SCHOLASTIC STANDING

Students should consult the General Information section of this Undergraduate Catalog on campus-wide policies governing scholastic standing. The College of Education, Health, and Human Services reviews the records of all its degree students at the end of each term. If a certification student's grade point average for one term drops below 2.75, the student is placed on academic probation and may not register for education methods courses in the professional sequence. If the overall average remains below 2.75 for another term, the student may not be allowed to register as a student in a teacher certification program. Other undergraduate students (those not seeking a teaching certificate) must maintain a grade point average of at least 2.5.

#### MAXIMUM CREDIT HOUR LOADS

Students electing more than 18 credit hours in a full term (Fall, Winter, Summer) must have written permission from the School's Dean. If the student's GPA is below 3.0, this practice is especially discouraged. Students enrolled in the student teaching term must petition to elect any courses other than student teaching and its accompanying seminar.
GRADES OF INCOMPLETE AND ABSENCE FROM FINAL EXAMS

A student must request permission to have an "Incomplete" mark (I) or an "Absent from Final Exam" mark (X) appear on his/her transcript by obtaining an Incomplete Request/Contract form from the College of Education, Health, and Human Services Student Services Office. This form must be taken to the instructor for approval and signature. These marks are not automatically assigned. The instructor will determine the time limit if it is to be less or more than the four-month campus deadline for "Incompletes" and less than five weeks for the final examination. If the deadline date stated in the contract is not met, these marks will automatically convert to an E.

PASS/FAIL GRADE OPTIONS

The College of Education, Health, and Human Services allows students enrolled in any program to use the pass/fail grading system. However, this is limited to elective credit only and rules specific to each program or specialty may require grades other than "pass" in pertinent courses. Note the following conditions for enrolling in pass/fail courses:

1. The student cannot be on academic probation.
2. The student may elect a total of two courses on an optional pass/fail basis toward the academic program.
3. Only one pass/fail course may be elected during a term.
4. Education courses, when used in a student's professional education sequence, may not be elected on an optional pass/fail basis.
5. Distribution requirements may not be elected on an optional pass/fail basis.
6. Courses offered only on a nongraded basis are not regulated by this policy.
7. Courses in a student's teaching major and/or minor may not be elected for optional pass/fail credit.
8. The optional pass/fail grade will count for residency, certification and degree requirements but will not enter into the computation of a student's grade point average.
9. Courses taken for optional pass/fail credit must be specified on the registration form or otherwise identified within the usual time permitted for adding classes. After the add/drop period has elapsed, the student is not permitted to change from a pass/fail to a letter grade or vice-versa. Students may drop an optional pass/fail class within the usual add/drop period. Petitions requesting a change of pass/fail to a letter grade or vice-versa will not be accepted after the first two weeks of the term.

For further information, refer to other sections in this Undergraduate Catalog.

Honors

GRADUATING WITH DISTINCTION

At the time of graduation, the College of Education, Health, and Human Services honors its academically outstanding undergraduate degree candidates by recommending that they graduate with either distinction or high distinction. Those graduating seniors who have achieved an overall grade point average of at least 3.2 will be recommended for a degree with distinction. Those who have achieved an overall grade point average of at least 3.6 will be recommended for a degree with high distinction.

DEAN'S LIST

At the beginning of each term, those students enrolled in a College of Education, Health, and Human Services undergraduate degree program who have established a noteworthy academic record during the previous term are publicly recognized. In conjunction with the Office of Academic Affairs, the Dean of the School publishes the names of those degree students who have earned a grade point average of 3.5 or better while carrying a minimum course load of 12 earned GPA credit hours during the immediately preceding term. Only credit earned at UM-Dearborn is used in determining whether or not a student meets the requirements for this honor.

Other Awards

In addition to the Dean's List, the College of Education, Health, and Human Services also recommends candidates for other awards. See the General information section of this Catalog for additional awards.

Teacher Certification Programs

In recommending students for teacher's certificates, the College of Education, Health, and Human Services functions, indirectly, as an arm of the Michigan Department of Education. All such certificates awarded to students at the UM are issued at the request of an appropriate faculty body by the Michigan Department of Education in Lansing irrespective of the particular campus attended (Ann Arbor, Dearborn, Flint).

Elementary Provisional Certificate

The initial teaching certificate awarded the beginning elementary school teacher is the Michigan Elementary Provisional Teacher's Certificate. This certificate is valid for teaching all subjects in kindergarten through fifth grade and in subject areas (majors and minors) if an endorsement on the certificate has been obtained in grades six through eight. One is also qualified to teach all subjects in self-contained classrooms through grade eight. The Provisional Teacher's Certificate is valid for six years and may be renewed twice (for three years each time) provided that renewal conditions are met. Legislative or other state action may change these specifications. Therefore, students are advised to contact the College of Education, Health, and Human Services' Student Services Office, located in the Fairlane Center South (FCS), to learn of the most recent policies.

Secondary Provisional Certificate

The teaching certificate awarded to the beginning secondary school teacher is the Michigan Secondary Provisional Teacher's Certificate. This certificate is valid for teaching in grades six through twelve in those areas where the applicant has completed a major or minor, and passed the appropriate state mandated tests. It is valid for six years and may be renewed twice (for three years each time) provided that renewal conditions are met. Legislative or other state action may change these specifications. Therefore, students are advised to contact the Student Services Office in the College of Education, Health, and Human Services to learn of the most recent policies.
General Requirements for a Teacher's Certificate

In order to be awarded an elementary or secondary provisional teacher's certificate, students at UM-Dearborn must be recommended for the certificate by the Governing Faculty of the College of Education, Health, and Human Services. The general procedure to be followed in obtaining such a recommendation is outlined below. It should be noted, however, that progression from one step to another is not automatic; students are expected to be individually responsible for understanding and meeting the requirements and provisions of the programs they pursue.

QUALIFYING FOR A PROVISIONAL TEACHER'S CERTIFICATE

To qualify for certificate recommendation, an individual must fulfill the following requirements:

1. Earn a bachelor's degree from UM-Dearborn or another accredited institution with an overall GPA of 2.75; a minimum GPA of 2.75 in the major; a minimum GPA of 2.75 in the minor; and a minimum GPA of 2.75 in the Professional Sequence. Irrespective of where the degree is earned, each candidate shall satisfactorily complete directed teaching and all required methods courses and practica at UM-Dearborn.
2. If acquiring both the bachelor's degree and a teacher's certificate from UM-Dearborn, the individual shall complete the degree with the appropriate number of semester hours depending on the program selected.
3. Comply with the four-phase program described below.
4. Meet all Michigan Department of Education Teacher Certificate requirements including state mandated tests.
5. Satisfy the School faculty that the applicant possesses attributes that are necessary and desirable for successful teaching.

College of Education, Health, and Human Services Four-Phase Program

The College of Education, Health, and Human Services at UM-Dearborn is committed to the ideal of quality in the field of teacher education. It recognizes that not everyone who wishes to be a teacher is capable of meeting program requirements that relate to teacher competency. Therefore, the College of Education, Health, and Human Services is selective in admitting students into its teacher preparation programs and in making recommendations for teacher certification.

A four-phase screening procedure is employed to help identify those people most likely to perform at the level of excellence defined by the School. Further, this procedure is useful in assisting students with career decisions. The screening procedure is divided into four successive phases, each with its own set of academic and professional admission standards. Students are expected to have successfully met all of the requirements at one phase before entering the next. Each student is responsible for knowing and meeting all program requirements as listed in this Undergraduate Catalog. The "College of Education, Health, and Human Services Four-Phase Checklist" is as follows:

PHASE 1 – Admission to College of Education, Health, and Human Services

Three types of students are considered for admission to the College of Education, Health, and Human Services at this entry level phase:

1. First time in any college (FTIAC) students
   Campus admission standards for SAT, ACT, and high school Grade Point Average (GPA) are used in determining admission.
2. Transfer students
   Campus admission standards are used for students transferring 54 or fewer semester hours. College of Education, Health, and Human Services admission standards (a minimum cumulative GPA of 2.75/4.0 scale) are used for students transferring 55 or more semester hours.
3. Degreed persons seeking certification only
   College of Education, Health, and Human Services admission standards are used for individuals with a bachelor's degree earned at a regionally accredited institution. The individual must have a cumulative GPA of 2.75 or higher in their major, minor, and overall to be admitted to the College of Education, Health, and Human Services and Teacher Certification Program.

Important: Fingerprinting and criminal background checks are required for work in school settings. Such work is required of all certification students. All background checks must be completed in the first semester of admission to the College of Education, Health, and Human Services and on file in the Field Placement Office (Room 261 FCS).

NOTE: Admission to a Teacher Certification program--see Phase 2--is a separate procedure from admission to the College of Education, Health, and Human Services itself.

PHASE 2 – Admission to Teacher Certification Program

Admission to a College of Education, Health, and Human Services Teacher Certification program (elementary/secondary) requires all of the following:

1. meeting minimum score requirements on the Michigan Test for Teacher Certification (MTTC) Professional Readiness Examination (Reading, Mathematics, Writing),
2. a minimum of 55 semester credit hours or an earned degree with a cumulative GPA of 2.75/4.0 scale. Grades earned at all institutions are used in this calculation for students transferring into the College of Education, Health, and Human Services with the exception of degreed persons seeking certification only (see Phase 1, number 3),
3. submission to College of Education, Health, and Human Services of results from the Campus Composition Placement Test (telephone 593-5100 to arrange for the exam), This test must be taken within the first semester that a student is enrolled in classes.
4. completion of COMP 105 and 106 (and COMP 227 when required).
5. Major(s) and/or minor(s) must be formally declared on a Change of Degree/Concentration Petition.
6. submission of completed Application for Admission Teacher Certification Program form (available in College of Education, Health, and Human Services Student Services Office, 262 FCS). This form includes a statement of intent regarding allowing or not allowing MTTC score reporting to faculty advisors in the College of Education, Health, and Human Services and College of Arts, Sciences & Letters
Recommendation for a degree and/or a Michigan Teaching Certification

PHASE 4 – Eligibility for Degree and Recommendation for Certification

Eligibility for directed (student) teaching (elementary or secondary) requires all of the following:

1. passing scores from pertinent MTTC Subject Area Tests. Effective Fall 2010 elementary certification students will need to pass the “elementary education test” and their major or minor (depending on program selection) for student teaching eligibility. Secondary certification students must pass the tests in their major and their minor,
2. senior student status (minimum of 85 semester hours earned),
3. completion of at least one full term (12 semester hours) of study at UM-Dearborn,
4. a minimum cumulative GPA of 2.75/4.0 scale as well as a minimum GPA of 2.75 in the major(s), minor(s), and the professional sequence,
5. completion of professional sequence courses,
6. submission of a signed "Evaluation of Oral Expression" form to the Field Placement Office (261 FCS),
7. attendance at a Student Teaching Application and Placement meeting and submission of all forms distributed,
8. valid TB clearance, criminal background check, CPR certification, and evidence of training for dealing with infectious diseases/blood borne pathogens on file,
9. EDF 450 is required of all Elementary Certification students, and
10. Valid Internet Criminal History Access Tool (ICHAT). A criminal background check will be conducted using ICHAT before placement in any field experience. If any offense is found, you must make an appointment with the Associate Dean.

PHASE 4 – Eligibility for Degree and Recommendation for Certification

Recommendation for a degree and/or a Michigan Teaching Certificate (elementary/secondary) requires all of the following:

1. submission of completed Degree/Diploma Application form to the Enrollment Services Office (the form and applicable deadlines are available online at www.umd.umich.edu/rr_apply-graduate/). Note: Secondary Certification students must submit their Degree/Diploma Application form as a student in the College of Arts, Sciences and Letters and fill out a Program Completer Form to be submitted to the College of Education, Health, and Human Services certification officer
2. acceptable scores from all relevant Michigan Tests for Teacher Certification (MTTC),
   a) Elementary Certification students: Elementary Education Test and major or minor,
   b) to be recommended for any additional major(s), minor(s), endorsement(s), all relevant tests must be taken and passed. Results must be in by the time recommendations are prepared for the state by the UM-Dearborn certification officer.

3. successful completion of the chosen program, major(s), minor(s), professional sequence, and supplementary requirements,
4. a minimum cumulative GPA of 2.75/4.0 scale as well as a minimum GPA of 2.75 in the major(s), minor(s) and professional sequence.

Based on this record of achievement, a decision to recommend or not to recommend for degree and/or certification will be made.

Professional Semester/Directed Teaching (Student Teaching)

Each student enrolled in a teacher certification program at UM-Dearborn, whether pursuing an elementary or a secondary provisional certificate, is expected to spend one full academic term exclusively in professional work. This period of time is called the "professional semester." Directed Teaching (student teaching) and its related seminar serve as the core for this particular term. This entails a full day's teaching load and all school-related activities at a University-negotiated site. Most students elect their professional semester courses during the second half of the senior year. The professional semester for elementary and secondary certification students is as follows:

**Elementary Professional Semester**
EDD 435  Directed Teaching ........................................ 11 hrs
EDD 437  Seminar......................................................... 1 hr

**Secondary Professional Semester**
EDD 421  Directed Teaching ........................................ 12 hrs
EDD 424  Seminar......................................................... 1 hr

Opportunities for directed teaching are available only in the University's fall and winter terms. Students wishing to elect directed teaching in the fall term are required to attend an application meeting the preceding January and those desiring to elect it during the winter term are required to attend an application meeting the preceding March. Meeting dates, times, and locations will be posted on the Field Placement Office website and in the Fairlane Center South. Requirements for acceptance into the professional semester are outlined in the Four-Phase program.

INCOMPLETES, UNSATISFACTORY GRADES, AND WITHDRAWALS

No student will be assigned to, or registered for, directed teaching with incomplete work in the Professional Sequence of courses. Moreover, once a student has been assigned to a directed teaching contact and then has had registration denied because of incomplete work, the student will be prohibited from receiving any future directed teaching assignment for that semester.

Any student, who has withdrawn from or received an unsatisfactory grade in directed teaching, whether through the action of a school district, the University, or by personal choice, will have a request for future placement carefully reviewed by the School's Executive Committee. Reassignment to directed teaching is not guaranteed, nor is it an automatic process.

Students must file petitions for reassignment consideration.
General Field Placement Policy

Students in the teacher preparation program are assigned field placements, either as practicum students or as student teachers, in public or private schools. Field placement shall be made in accordance with the policies and procedures set forth by the College of Education, Health, and Human Services and to be in compliance with accreditation standards.

The student is expected to maintain a professional attitude in order to conform to the expectations of the placement school and the University. Appropriate academic preparation is required as outlined in the elementary and secondary programs of the School. Professional responsibilities during the Directed Teaching term are detailed in the "UM-Dearborn Directed Teaching Handbook" which is located on the CEHHS Field Placement website.

The public and private schools exercise the right to screen the University's students. Acceptance or rejection of students is not controlled by the University. A placement school may reject a University student for several reasons, including a lack of placement positions in the school or a determination that the University student's presence in the school or classroom may disrupt or interfere in some way with the educational process.

Currently there is no way in which the University can require the placement school to state specific reasons for rejection.

If a University student is repeatedly denied placement by the field schools, the College of Education, Health, and Human Services will recommend career counseling and terminate matriculation in the teacher certification program.

Elementary School Certification Program

This program has been specifically developed for students intending to teach in either the elementary school or the middle school. It permits them to meet the requirements for both a bachelor's degree and the Michigan Elementary Provisional Certificate. The curriculum consists of two parts, the first involving academic study, and the second consisting of professional preparation.

ACADEMIC PROGRAM REQUIREMENTS (MAJORS AND MINORS)

Students entering this program are required to complete all core courses pre-professional and all requirements for a selected major(s). Academic majors and/or minors can be selected from the following fields: English as a Second Language (ESL)-minor only, Language Arts, Mathematics, Integrated Science, Reading and Social Studies – major only. Students desiring to pursue an Early Childhood major with elementary certification should follow the program outlined under "Early Childhood Education," students desiring to pursue the Learning Disabilities major with elementary certification should follow the program outlined under “Elementary Education Learning Disabilities Program,” and courses in the major and/or minor may not be elected on a pass/fail basis. Courses that apply to the majors and minors are listed below under "Areas of Study for Majors and Minors."

CORE COURSES REQUIREMENTS

Core courses are generally completed in the freshman and sophomore year.

Selections must be from courses numbered 100-200 unless otherwise stated.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 105</td>
<td>Writing and Rhetoric I</td>
<td>3</td>
</tr>
<tr>
<td>COMP 106</td>
<td>Writing and Rhetoric II</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 327</td>
<td>Advanced Exposition</td>
<td>3</td>
</tr>
<tr>
<td>LIBR 465</td>
<td>Literature for Children</td>
<td>3</td>
</tr>
<tr>
<td>EXPS 282</td>
<td>History and Civics in Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>EXPS 283</td>
<td>Geography and Econ in Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>EXPS 220</td>
<td>Science in Elementary School</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 231</td>
<td>Inquiry: Physical Science*</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 232</td>
<td>Inquiry: Earth/Planetary Science*</td>
<td>3</td>
</tr>
<tr>
<td>NSCI 233</td>
<td>Inquiry: Life Science*</td>
<td>3</td>
</tr>
<tr>
<td>EXPS 420</td>
<td>Science Capstone</td>
<td>3</td>
</tr>
<tr>
<td>MATH 385</td>
<td>Math for Elementary Teachers I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 386</td>
<td>Math for Elementary Teachers II</td>
<td>3</td>
</tr>
<tr>
<td>MATH 387</td>
<td>Math for Elementary Teachers III</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note: Two of the three NSCI distribution courses may be transferred to UM-Dearborn. Great Experiments 240, 242, or 340, 342 and NSCI 120, 121 may not be used to satisfy Science distribution requirements. NSCI 233 and BIOL 100/101 may not both be elected for credit in the College of Education, Health, and Human Services.

PRE-PROFESSIONAL REQUIREMENTS

Pre-professional courses are generally completed in the freshman and sophomore year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDA 205</td>
<td>Introduction to Education</td>
<td>3</td>
</tr>
<tr>
<td>EDC 240</td>
<td>Psychology of Child Development</td>
<td>3</td>
</tr>
<tr>
<td>EDC 241</td>
<td>Practicum in Child Development</td>
<td>1</td>
</tr>
<tr>
<td>EDF 450</td>
<td>Health, Nut &amp; PE Clsrms Tchr</td>
<td>2</td>
</tr>
<tr>
<td>EDT 210</td>
<td>Technology for Elementary Grades</td>
<td>3</td>
</tr>
<tr>
<td>EXPS 250</td>
<td>Visual &amp; Perf/Arts Elem Clsrms</td>
<td>3</td>
</tr>
</tbody>
</table>

OTHER REQUIREMENTS

1. The Campus Composition Placement Exam (CCPT) is required of all students, i.e., UM-Dearborn undergraduates and transfer students. Transfer students who have been given credit for COMP 105 and 106 but receive a prescription from the CCPT for COMP 099 must enroll in an additional composition course (COMP 227).
2. Application to the College of Education, Health, and Human Services Teacher Certification Program is required of all students. The timing of this application is detailed on the four-phase checklist.
3. The Michigan Professional Readiness Examination must be taken and scores must be at the state-approved level for admission.
4. A cumulative grade point average (GPA) of 2.75 on a 4.0 scale is required overall, in the major, in the minor(s), and in the professional sequence courses.
5. All requirements as identified in the School's four-phase screening program must be met for a teacher certification. (See four-phase checklist.)
6. Minimum number of hours to graduate is 128 semester hours.
**AREAS OF STUDY FOR MAJORS AND MINORS**

**INTEGRATED SCIENCE**

**MAJOR**
A minimum of 36 semester hours from the following:

**Required courses**
- EXPS 220 Science in Elementary School .......................... 3 hrs
- NSCI 231 Inquiry: Physical Science ................................. 3 hrs
- NSCI 232 Inquiry: Earth/Planetary Science ...................... 3 hrs
- NSCI 233 Inquiry: Life Science ....................................... 3 hrs
- EXPS 420 Science Capstone .......................................... 3 hrs
- NSCI 331 Physical Science ............................................ 3 hrs
- NSCI 332 Earth/Planetary ............................................. 3 hrs
- NSCI 333 Life Science .................................................. 3 hrs
- EXPS 420 Science Capstone .......................................... 3 hrs
- NSCI 331 Physical Science ............................................ 3 hrs
- NSCI 332 Earth/Planetary ............................................. 3 hrs
- NSCI 333 Life Science .................................................. 3 hrs

*Great Experiments 240, 242, or 340, 342 and NSCI 120, 121 cannot be used for this major.*

**MINOR**
A minimum of 24 semester hours from the following:

**Required courses**
- EXPS 220 Science in Elementary School .......................... 3 hrs
- NSCI 231 Inquiry: Physical Science ................................. 3 hrs
- NSCI 232 Inquiry: Earth/Planetary Science ...................... 3 hrs
- NSCI 233 Inquiry: Life Science ....................................... 3 hrs
- EXPS 420 Science Capstone .......................................... 3 hrs
- NSCI 331 Physical Science ............................................ 3 hrs
- NSCI 332 Earth/Planetary ............................................. 3 hrs
- NSCI 333 Life Science .................................................. 3 hrs

*At least 15 semester hours in UM-Dearborn courses.
*Note: No more than three courses in any one area for a major except English Literature.*

**Notes**
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For a major, 6 or more semester hours must be in courses above 300 level, in addition to EXPS 420.
3. Equivalents for transfer students (NSCI 231, 232, 233): two of the three NSCI distribution courses may be transferred to UM-Dearborn.
4. Astronomy can satisfy Earth/Planetary Science requirement.
5. At least 15 semester hours in UM-Dearborn courses required for a major.

**LANGUAGE ARTS**

**MAJOR**
A minimum of 36 semester hours from the following:

**Required courses**
- COMP 105 Writing and Rhetoric I ................................. 3 hrs
- COMP 106 Writing and Rhetoric II ................................. 3 hrs
- ENGL 323 Advanced Creative Writing............................. 3 hrs
- ENGL 327 Advanced Exposition .................................... 3 hrs

**Recommended electives**
- MATH 200 Math Proof and Structures ............................ 3 hrs

**MATHEMATICS**

**MAJOR**
A minimum of 30 semester hours from the following:

**Required courses**
- MATH 104 Pre-calculus (Management, Life and Social Science) ........................................... 3 hrs
- MATH 105 Pre-calculus .................................................. 3 hrs
- MATH 113 Calculus I: Management, Life and Social Science ........................................... 3 hrs
- MATH 115 Calculus I ...................................................... 3 hrs
- MATH 385 Math for Elementary Teachers I .................... 3 hrs
- MATH 386 Math for Elementary Teachers II .................. 3 hrs
- MATH 387 Math for Elementary Teachers III ............... 3 hrs
- MATH 442 Geometry for Teachers ................................. 3 hrs
- MATH 443 Algebra for Teachers .................................... 3 hrs
- MATH 444 Probability and Statistics for Teachers ....... 3 hrs

**Recommended electives**
- MATH 131 Conceptual Mathematics .............................. 4 hrs
- MATH 200 Math Proof and Structures ............................ 3 hrs
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDA 419</td>
<td>Early Literacy/Lang Development</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDD 447</td>
<td>Second Language Teaching Elementary</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDD 448</td>
<td>Practicum Second Language Teaching</td>
<td>1 hr</td>
</tr>
<tr>
<td>EDD 467</td>
<td>Practicum Reading Instruction</td>
<td>1 hr</td>
</tr>
<tr>
<td>EDD 468</td>
<td>Tchg Rdg/Lang Arts Elem Grds</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDD 498</td>
<td>Expl Writing w/Child &amp; Young Adults</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EXPS 460</td>
<td>Capstone: Trds/Iss in Lit Theory</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**MINOR**

A minimum of 30 semester hours from the following:

**Required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDC 431</td>
<td>Constructivist Education</td>
<td>3 hrs</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDC 442</td>
<td>EC: Family, School, Community Collab</td>
<td>3 hrs</td>
</tr>
<tr>
<td>Elective</td>
<td>Select from: Eng, Ling, Spee, Foreign Lang, or JASS 310, 330 or 340</td>
<td></td>
</tr>
</tbody>
</table>

Notes

1. An overall GPA of 2.75 or better is required for a major or a minor.

**SOCIAL STUDIES**

**MAJOR**

A minimum of 36 semester hours from the following:

**Required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPS 283</td>
<td>Geography &amp; Econ in Elem School</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EXPS 282</td>
<td>History &amp; Civics in Elem School</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Intro to Economics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>Elective</td>
<td>Select from: Eng, Ling, Spee, Foreign Lang, or JASS 310, 330 or 340</td>
<td></td>
</tr>
</tbody>
</table>

Notes

1. An overall GPA of 2.75 or better is required for a major.

**MINOR ONLY**

Students must demonstrate experience in learning a modern second language or coursework in a modern second language or permission of Program Coordinator or take one semester course in a modern language.
A minimum of 21 semester hours from the following:

**Required courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDD 447</td>
<td>Teaching English as a Second Language</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDD 448</td>
<td>Practicum in Teaching English as a Second Language</td>
<td>1 hr</td>
</tr>
<tr>
<td>EDC 455</td>
<td>Assessment in Second Language Learning (K-12)</td>
<td>2 hrs</td>
</tr>
<tr>
<td>ENGL</td>
<td>Second Language Acquisition: English</td>
<td>3 hrs</td>
</tr>
<tr>
<td>LING 476</td>
<td>Sociolinguistics</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

Select two of the following: 6 hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH/LING 425</td>
<td>Language and Society</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENGL/LING 461</td>
<td>Modern English Grammar</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENGL/LING 482</td>
<td>History of the English Language</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENGL/LING 484</td>
<td>World English(es)</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Notes:**

1. EDD 447/448 is a pre-requisite for EDC 455/555
2. LING 480 is a pre-requisite for LING/ENGL 461/561, LING/ENGL 482/582, LING/ENGL 484/584, LING 474/574 and LING 476/576.

**Professional Requirements**

The professional sequence of education courses consists of a minimum of 44 semester hours of credit. This concentration of study represents the core of your professional preparation. At least two practicums are required prior to student teaching. The semester hours are distributed as follows:

**Foundations**
- EDA 340 The Foundations of American Education 3 hrs

**Multicultural Education**
- EXPS 410 Multiculturalism in School and Society 3 hrs

**Psychology**
- EDC 300 Educational Psychology 3 hrs
- EDC 460 Educating the Exceptional Child 3 hrs
- EDC 417 Management of Classroom Behavior 3 hrs
- OR
- EDC 412 Social Development of Guidance Techniques 3 hrs

**Methodologies** (See Note #1 below)
- EDD 452 Methods of Teaching Math in K-8 3 hrs
- EDD 468 Teaching Reading and Language Arts in Elementary Grades 3 hrs
- EDD 467 Practicum in Reading Instruction 1 hr
- EDD 471 Reading Instruction: Models & Methods 3 hrs
- EDD 485 Teaching Science in Elementary Grades 3 hrs
- EDD 491 Social Studies in Elementary Grades Practicum 1 hr
- EDD 495 Teaching Social Studies in Elementary Grades 3 hrs

*Note: EDD 467 and 471 are to be taken concurrently. Both require EDD 468 as a prerequisite.*

**Professiona l Semester** (See Notes #3 & #5 below)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDD 435</td>
<td>Directed Teaching in the Elementary School</td>
<td>11 hrs</td>
</tr>
<tr>
<td>EDD 437</td>
<td>Seminar: Teaching in the Elementary Grades</td>
<td>1 hr</td>
</tr>
</tbody>
</table>

**Notes**

1. Enrollment in all the required EDD courses is open only to those who are officially enrolled and in good academic standing in a certification program at UM-Dearborn (junior standing) required with a cumulative GPA of 2.75 or higher.
2. A UM-Dearborn cumulative GPA of 2.75 or better is required overall for the Professional Sequence.
3. Passing the MTTC Professional Readiness Examination is required.
4. Eligibility for directed teaching requires passing scores from the MTTC (Michigan Tests for Teacher Certification) subject area test: Elementary certification (elementary education and major or minor depending on program selection), Secondary certification (major and minor tests).
5. Recommendations for other certification endorsements require passing scores from relevant MTTC subject area tests.

**ELEMENTARY CERTIFICATION REQUIREMENTS**

The program as outlined above meets the state's teacher certification requirements at the time of this writing. However, changes by the University or the State may affect some program requirements. Therefore, the student is strongly advised to inquire about possible changes by checking with their advisor in the College of Education, Health, and Human Services.

**Learning Disabilities**

**Education/Elementary Certification**

**LEARNING DISABILITIES**

**DISTRIBUTION REQUIREMENTS**

Required courses 56 hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP 105</td>
<td>Writing and Rhetoric I</td>
<td>3 hrs</td>
</tr>
<tr>
<td>COMP 106</td>
<td>Writing and Rhetoric II</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENGL 327</td>
<td>Advanced Exposition</td>
<td>3 hrs</td>
</tr>
<tr>
<td>LIBR 465</td>
<td>Literature for Children</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EXPS 282</td>
<td>History &amp; Civics in Elem Sch</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EXPS 283</td>
<td>Geography &amp; Econ in Elem Sch</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EXPS 220</td>
<td>Science in Elementary School</td>
<td>3 hrs</td>
</tr>
<tr>
<td>NSCI 231</td>
<td>Inquiry: Physical Science</td>
<td>3 hrs</td>
</tr>
<tr>
<td>NSCI 232</td>
<td>Inquiry: Earth/Planetary</td>
<td>3 hrs</td>
</tr>
<tr>
<td>NSCI 233</td>
<td>Inquiry: Life Science</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MATH 385</td>
<td>Math for Elementary Teachers I</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MATH 386</td>
<td>Math for Elementary Teachers II</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MATH 387</td>
<td>Math for Elementary Teachers III</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Supplementary Content Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDA 419</td>
<td>Early Literacy/Language Development</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDF 450</td>
<td>Health, Nutr &amp; PE Clsrm Teachers</td>
<td>2 hrs</td>
</tr>
<tr>
<td>EXPS 250</td>
<td>Visual &amp; Perf Arts Elem Clsrm</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Pre-Professional Studies**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDA 205</td>
<td>Intro to Education</td>
<td>3 hrs</td>
</tr>
<tr>
<td>EDC 241</td>
<td>Psych of Child Dev Practicum</td>
<td>1 hr</td>
</tr>
<tr>
<td>EDT 210</td>
<td>Technology for Elementary Education</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Electives** 2 hrs
MAJOR
A minimum of 30 semester hours from the following:

Required courses
- EDC 401* Introduction to Learning Disabilities .............. 3 hrs
- EDN 403* Assessment of the Learner .......................... 3 hrs
- EDN 404* Assessment Practicum .................................. 1 hr
- EDN 401* Strategies in Learning Disabilities .............. 3 hrs
- EDN 402* Social Vocational Transitions ....................... 3 hrs
- PDE 405 Special Education Legislation and Litigation ........ 3 hrs
- EDC 417 Classroom Management ................................ 3 hrs
- EDC 420 Psychology of Child Development ................... 3 hrs
- EDN 406 Collaboration in the Classroom ..................... 3 hrs
- EDD 413 Elementary Directed Teaching .......................... 2 hrs
- EDD 402 Secondary Directed Teaching .......................... 2 hrs
- EDD 408 Directed Teaching Seminar ............................. 1 hr

Completion with a grade of B or better is necessary before enrollment in EDD 413 and EDD 420.

PROFESSIONAL REQUIREMENTS

The professional sequence of education courses consists of a minimum of 42 semester hours of credit. This concentration of study represents the core of your professional preparation. At least two practicums are required prior to student teaching. The semester hours are distributed as follows:

Foundations
- EDA 340 The Foundations of American Education ............. 3 hrs

Psychology
- EDC 300 Educational Psychology ................................ 3 hrs
- EDC 460 Educating the Exceptional Child ...................... 3 hrs

Methodologies (See Note #1 below)
- EDD 452 Methods of Teaching Math in K-8 ...................... 3 hrs
- EDD 468* Teaching Reading and Language Arts in Elementary Grades ................................................. 3 hrs
- EDD 467 Practicum in Reading Instruction* .................... 1 hr
- EDD 471 Reading Instruction: Models & Methods* ............. 3 hrs
- EDD 485 Teaching Science in Elementary Grades ............. 3 hrs
- EDD 495 Teaching Social Studies in Elem. Grades ............. 3 hrs
- EDD 491 Social Studies in Elem Grades Practicum ............. 1 hr

*Note: EDD 467 and 471 are to be taken concurrently. Both require EDD 468 as a prerequisite.

Professional Semester (See Notes #3 & #5 below)
- EDD 435 Directed Teaching in the Elementary School ............... 11 hrs
- EDD 437 Seminar: Teaching in the Elementary Grds ........ 1 hr

Notes
1. Enrollment in all the required EDD courses is open only to those who are officially enrolled and in good academic standing in a certification program at UM-Dearborn (junior standing required) with a cumulative GPA of 2.75 or higher.
2. A UM-Dearborn cumulative GPA of 2.75 or better is required overall for the Professional Sequence.
3. Passing the MTTC Professional Readiness Examination is required.
4. Eligibility for directed teaching requires passing scores from the MTTC (Michigan Tests for Teacher Certification) subject area test: Elementary certification (elementary education) and major or minor depending on program selection.
5. Recommendations for other certification endorsements require passing scores from relevant MTTC subject area tests.

Early Childhood Education/Elementary Certification

The Early Childhood Education Program is designed for those intending to work with children, birth through eight years of age. Within the basic elementary education degree curriculum, it enables students to meet State requirements for a Michigan Provisional Elementary Teacher’s Certificate and the Early Childhood Endorsement (ZS) as well as to gain special competencies in the area of early childhood. It prepares individuals for careers in child care centers, working with young children and their families, birth through kindergarten, as well as in the elementary grades 1-5. The program includes a concentrated study of the young child in infant/toddler, preschool, and early school contexts with extensive opportunities for field experiences in a variety of settings.

The requirements of the Early Childhood Education Program for undergraduates are as follows:

DISTRIBUTION REQUIREMENTS

Early Childhood and Elementary Certification

Required courses 57 hrs
- COMP 105 Writing and Rhetoric I .......................... 3 hrs
- COMP 106 Writing and Rhetoric II ...................... 3 hrs
- ENGL 327 Advanced Exposition .............................. 3 hrs
- LIBR 465 Literature for Children ............................ 3 hrs
- EXPS 282 History & Civics in Elem Sch .................... 3 hrs
- EXPS 283 Geography & Econ in Elem Sch .................... 3 hrs
- NSCI 231 Inquiry: Physical Science ......................... 3 hrs
- NSCI 223 Inquiry: Earth/Planetary Science .................... 3 hrs
- NSCI 233 Inquiry: Life Science ............................... 3 hrs
- MATH 385 Math for Elementary Teachers I ................. 3 hrs
- MATH 386 Math for Elementary Teachers II ................. 3 hrs

Supplementary Content Requirements
- EDA 419 Early Literacy/Language Development ............. 3 hrs
- EDC 420 Psychological Development .......................... 3 hrs
- EDC 421 Psych of Child Development .......................... 3 hrs
- EDC 422 Psych of Child Development Practicum .............. 1 hr
- EDT 210 Technology for Elementary Education ............... 3 hrs

Pre-Professional Studies
- EDA 205 Intro to Education ................................ 3 hrs
- EDC 241 Psych of Child Development ....................... 3 hrs
- EDC 417 Classroom Management .............................. 3 hrs
- EDC 418 Research in Education ............................... 3 hrs
- EDC 420 Psychology of Child Development .......................... 3 hrs
- EXPS 283 Geography & Econ in Elem Sch .................... 3 hrs
- EXPS 284 History & Civics in Elem Sch .................... 3 hrs
- MATH 385 Math for Elementary Teachers I .................... 3 hrs
- MATH 386 Math for Elementary Teachers II ................. 3 hrs

OTHER REQUIREMENTS

1. The Campus Composition Placement Test (CCPT) is required of all students, i.e., UM-Dearborn undergraduates and transfer students. Transfer students who have been given credit for COMP 105 and 106 but receive a prescription from the CCPE for COMP 099 must enroll in an additional composition course (COMP 227). This test
must be taken within the first semester that a student is enrolled in class.

2. Application to the College of Education, Health, and Human Services Certification Program is required of all students. The timing of this application is detailed on the four-phase checklist.

3. The MTTC (Michigan Tests for Teacher Certification) Professional Readiness Examination must be taken and scores must be at the state-approved level for admission.

4. A cumulative GPA of 2.75 on a 4.0 scale is required overall, in the major, in the minor(s), and in the professional sequence courses.

5. All requirements as identified in the School's four-phase screening program must be met for a teaching certificate recommendation. (See four-phase checklist.)

6. Minimum number of hours to graduate is 128 credit hours.

**EARLY CHILDHOOD MAJOR REQUIREMENTS**

**MAJOR**

A minimum of 34 semester hours from the following:

**Required courses**

- EDB 422 Leadership, Advocacy & Admin in EC Prog. 3 hrs
- EDC 414 Early Childhood Ed. For Young Child with Special Needs 3 hrs
- EDC 442 Early Childhood: Family, School, Community 3 hrs
- EDC 445 Developmental Assessment of the Young Child 3 hrs
- EDD 406 Strategies in Early Childhood Education 3 hrs
- EDD 410 Practicum in Early Childhood Education 1 hr
- EDD 411 Directed Teaching: Early Childhood 4 hrs
- EDD 412 Seminar: Early Childhood 2 hrs
- EDC 431 Constructivist Education 3 hrs
- EDC 440 Child: Birth to Three 3 hrs
- EDD 446 Family Center Intervention Strategies EC 3 hrs
- EDC 446 Cognitive and Memory Development 3 hrs
- OR
- EDD 416 Creative Tchg in Early Childhood 3 hrs

**Notes**

1. With the approval of the Early Childhood Program Coordinator, a maximum of six credit hours of freshman and sophomore level transfer courses in early childhood will be considered for general credit toward the early childhood major.

2. An overall GPA of 2.75 or better is required for the major.

3. At least 15 semester hours in UM-Dearborn courses required for a major.

4. A grade of "S" is required in EDD 411.

**EARLY CHILDHOOD AND ELEMENTARY CERTIFICATION-PROFESSIONAL SEQUENCE**

The professional sequence of early childhood elementary education courses consists of:

**Foundations**

- EDA 340 The Foundations of American Education 3 hrs

**Psychology**

- EDC 300 Educational Psychology 3 hrs
- EDC 412 Soc Dev & Positive Guidance Tech 3 hrs

**Methodologies** (See Note #1 below)

- EDD 452 Methods of Teach. Math. in K-8 3 hrs
- EDD 468 Teaching Reading/Language Arts 3 hrs
- EDD 495 Social Studies in the Elem. Grades 3 hrs
- EDD 491 Social Studies in Elem Grades Practicum 1 hr

*EDD 468 is a prerequisite for these courses.

**Professional Semester** (See notes #3 & #5 below)

- EDD 435 Directed Teaching in the Elementary School 11 hrs
- EDD 437 Seminar: Teaching in the Elementary Grades 1 hr

**Post-Degree Programs in Early Childhood**

Post-degree students wishing to obtain Michigan Elementary Teaching Certification and persons with provisional certificates wishing to maintain certification validity and to qualify for the Michigan (Early Childhood Endorsement (ZS) are also eligible for admission to the Early Childhood Education Program. All relevant Michigan Tests for Teacher Certification (MTTC) are required. Course requirements for these students will vary according to the individual undergraduate coursework of the student. Students working toward the M.A. degree and/or the Professional Education Certificate can qualify for the Michigan Early Childhood Endorsement (ZS) by pursuing appropriate coursework. Upon the student's successful completion of a prescribed Early Childhood sequence and a passing score on the MTTC Early Childhood test, the College of Education, Health, and Human Services will recommend to the State of Michigan that the student is qualified to receive an Early Childhood Endorsement (ZS) on the student's Elementary Teaching Certificate.

Inquiries for additional information and program guides can be directed to the College of Education, Health, and Human Services Graduate Student Services Office, (313) 593-5090.

**Secondary School Certification Program**

UM-Dearborn students may earn a bachelor's degree while securing a recommendation for a Secondary Provisional Teacher's Certificate. Programs are intended for those who wish to teach in either a middle school or senior high school. Students in this program will have two advisors, one in the College of Arts, Sciences, and Letters (CASL) to help plan the degree program and...
another, in the College of Education, Health, and Human Services, to assist in planning the certification program.

Note: Education courses, or courses in the major or minor, may not be elected for pass/fail credit.

CAMPUSS DEGREE/CERTIFICATION PROGRAM

Students, upon the successful completion of certification requirements, will receive their certification recommendation through the College of Education, Health, and Human Services and their degree recommendation from CASL. Therefore, they should be properly enrolled in the College of Education, Health, and Human Services and CASL. Students are responsible for meeting all of the appropriate degree requirements legislated by the particular unit that is to recommend their degree. The College of Education, Health, and Human Services and its faculty, therefore, can accept no responsibility for seeing that students are properly acquainted with their various degree requirements. Instead, students are to seek such information from the advisors available in their own particular degree recommending unit.

CERTIFICATION ADVISING

All secondary certification students must have an advisor in the College of Education, Health, and Human Services. Usually the education advisor will be assigned at the time the student first enrolls in the certification program. It is the policy of the College of Education, Health, and Human Services that all undergraduates and others seeking provisional teaching certificates are to meet with their certification advisors once a year, during either the fall or winter terms. By means of this practice, the individual secondary certification student can be kept abreast of periodic modifications in the curriculum and in certification regulations.

CERTIFICATION REQUIREMENTS

A person desiring to earn a secondary teacher's certificate must meet all of the conditions listed below.

1. The satisfactory completion of a degree program with an overall GPA of 2.75 or higher.
2. The satisfactory completion of a teaching major and a teaching minor, each with a GPA of 2.75 or higher.
3. The successful completion of the courses below is required of everyone desiring to qualify for a secondary certification recommendation:
4. EDA 205 Introduction to Education EDT 211 Technology in Secondary Education. All requirements as identified in the School's four-phase program listed below must be met for a teaching certificate recommendation.

College of Education, Health, and Human Services Four-Phase Program

The College of Education, Health, and Human Services at the UM-Dearborn is committed to the ideal of quality in the field of teacher education. It recognizes that not everyone who wishes to be a teacher is capable of meeting program requirements that relate to teacher competency. Therefore, the College of Education, Health, and Human Services is selective in admitting students into its teacher preparation programs and in making recommendations for teacher certification.

A four-phase screening procedure is employed to help identify those people most likely to perform at the level of excellence defined by the School. Further, this procedure is useful in assisting students with career decisions. The screening procedure is divided into four successive phases, each with its own set of academic and professional admission standards. Students are expected to have successfully met all of the requirements at one phase before entering the next. Each student is responsible for knowing and meeting all program requirements as listed in this Undergraduate Catalog. The "College of Education, Health, and Human Services Four-Phase Checklist" is as follows:

PHASE 1 Admission to The College of Education, Health, and Human Services

Three types of students are considered for admission to the College of Education, Health, and Human Services at this entry level phase:

1. First time in any college (FTIAC) students
   Campus admission standards for SAT, ACT, and high school Grade Point Average (GPA) are used in determining admission.

2. Transfer students
   Campus admission standards are used for students transferring 54 or fewer semester hours. College of Education, Health, and Human Services admission standards (a minimum cumulative GPA of 2.75/4.0 scale) are used for students transferring 55 or more semester hours.

3. Degreed persons seeking certification only
   College of Education, Health, and Human Services admission standards are used for individuals with a bachelor's degree earned at a regionally accredited institution. The individual must have a cumulative GPA of 2.75 or higher in their major, minor, and overall to be admitted to the College of Education, Health, and Human Services and Teacher Certification Program.

Important: Fingerprinting and criminal background checks are required for work in school settings. Such work is required of all certification students. All background checks must be completed in the first semester of admission to the College of Education, Health, and Human Services. Live Scan fingerprinting is being offered by Integrated Biometric Technology (IBT) by appointment only. Instruction/application forms are available at the College of Education, Health, and Human Services Field Placement Office (Room 261 FCS). To make an appointment for your Live Scan fingerprinting, contact IBT at www.miibtfingerprint.com or call 1-866-2952.

NOTE: Admission to a Teacher Certification program--see Phase 2--is a separate procedure from admission to the College of Education, Health, and Human Services itself.

PHASE 2 Admission to the College of Education, Health, and Human Services Teacher Certification Program

Admission to a College of Education, Health, and Human Services Teacher Certification program (elementary/secondary) requires all of the following:

1. meeting minimum score requirements on the Michigan Test for Teacher Certification (MTTC) Professional Readiness Examination (Reading, Mathematics, Writing).
2. a minimum of 55 semester credit hours or an earned degree with a cumulative GPA of 2.75/4.0 scale. Grades earned at all institutions are used in this calculation for students transferring into the College of Education, Health, and
Human Services with the exception of degree programs seeking certification only (see Phase 1, number 3),
3. submission to College of Education, Health, and Human Services of results from the Campus Composition Placement Test (telephone 593-5100 to arrange for the exam). This test must be taken within the first semester that a student is enrolled classes.
4. completion of COMP 105 and 106 (and COMP 227 when required).
5. Major(s) and/or minor(s) must be formally declared on a Change of Degree/Concentration Petition.
6. submission of completed Application for Admission Teacher Certification Program form (available in College of Education, Health, and Human Services Student Services Office, 262 FCS). This form includes a statement of intent regarding allowing or not allowing MTTC score reporting to faculty advisors in the College of Education, Health, and Human Services and College of Arts, Sciences & Letters.
7. valid Internet Criminal History Access Tool (ICHAT). A criminal background check will be conducted using ICHAT before placement in any field experience. If any offense is found, you must make an appointment with the Associate Dean.

Note: When all Phase 2 requirements have been met, students receive a formal letter of admission to the Teacher Certification Program.

PHASE 3 Eligibility for Student Teaching
Eligibility for directed (student) teaching (elementary or secondary) requires all of the following:
1. passing scores from pertinent MTTC Subject Area Tests. Secondary certification students must pass the tests in their major and their minor,
2. senior student status (minimum of 85 semester hours earned),
3. completion of at least one full term (12 semester hours) of study at UM-Dearborn,
4. a minimum cumulative GPA of 2.75/4.0 scale as well as a minimum GPA of 2.75 in the major(s), minor(s), and the professional sequence,
5. completion of professional sequence courses,
6. submission of a signed "Evaluation of Oral Expression" form to the Field Placement Office, (261 FCS),
7. attendance at a Student Teaching Application and Placement meeting and submission of all forms distributed,
8. valid TB clearance, criminal background check, CPR certification, and evidence of training for dealing with infectious diseases/blood borne pathogens on file,
9. Valid Internet Criminal History Access Tool (ICHAT). A criminal background check will be conducted using ICHAT before placement in any field experience. If any offense is found, you must make an appointment with the Associate Dean.

PHASE 4 Eligibility for a Recommendation for a Degree and/or a Michigan Teaching Certificate
Recommendation for a degree and/or a Michigan Teaching Certificate (elementary/secondary) requires all of the following:
1. submission of completed Degree/Diploma Application form to the Enrollment Services Office (the form and applicable deadlines are available online at www.umd.umich.edu/rr_apply-graduate/). Note: Secondary Certification students must submit their Degree/Diploma Application form as a student in the College of Arts, Sciences and Letters and fill out a Program Completer Form to be submitted to the College of Education, Health, and Human Services certification officer
2. acceptable scores from all relevant Michigan Tests for Teacher Certification (MTTC),
   a) Elementary Certification students: Elementary Education Test and major or minor
   b) to be recommended for any additional major(s), minor(s), endorsement(s), all relevant tests must be taken and passed. Results must be in by the time recommendations are prepared for the state by the UM-Dearborn certification officer.
   c) Secondary Certification students: Subject area tests for which student wishes to be recommended. (At least one major and one minor are required.)
3. successful completion of the chosen program, major(s), minor(s), professional sequence, and supplementary requirements,
4. a minimum cumulative GPA of 2.75/4.0 scale as well as a minimum GPA of 2.75 in the major(s), minor(s) and professional sequence.

Based on this record of achievement, a decision to recommend or not to recommend and/or certification will be made.

Secondary Teaching Major and Minor Requirements
Secondary education students pursuing a bachelor's degree in the College of Arts, Sciences, and Letters should not confuse the requirements for their teaching major with those for their academic concentration in CASL. The courses required to complete a teaching major are determined by the College of Education, Health, and Human Services in compliance with the state certification code. The courses required for a degree concentration are prescribed by the CASL and are a part of the student's degree program. Often the two sets of requirements overlap so that by fulfilling concentration requirements, the student also, in most cases, completes most of the requirements for a teaching major. Occasionally, however, students must exercise caution when electing individual courses so that one set of requirements is not ignored while fulfilling the other. The student's faculty advisor in the College of Education, Health, and Human Services will be able to assist in planning an overall certification program that simultaneously meets both sets of requirements in an expedient manner.

AREAS OF STUDY FOR MAJORS AND MINORS
The teaching majors and minors currently available for secondary certification students are listed below:
- Biology
- Chemistry
- Computer Science (minor only)
- Earth Science
- Economics
- English
- English as a Second Language (minor only)
- French
- German (minor only)
- History
- Integrated Science (major only)
- Learning Disabilities (major only)
- Mathematics
BIOL 353 Ornithology .................................................. 3 hrs
BIOL 350/L Introduction to Neurobiology ........................ 4 hrs
BIOL 333/L Plant Biology ................................................ 4 hrs
BIOL 385/L Microbiology ................................................ 4 hrs
BIOL 380 Epidemiology ............................................... 2 hrs
BIOL 370 Principles of Biochemistry ........................... 3 hrs
BIOL 324 Invertebrate Zoology .................................... 4 hrs
BIOL 312/L Comparative Anatomy of Vertebrates ............. 5 hrs
BIOL 311L Embryology .................................................. 4 hrs
BIOL 310/L Histology .................................................... 4 hrs
BIOL 311L Embryology .................................................. 4 hrs
BIOL 310/L Introduction to Mycology .............................. 4 hrs
BIOL 309/L Introduction to Mycology .............................. 4 hrs
BIOL 303/L Comparative Animal Physiology ................. 4 hrs
BIOL 309/L Introduction to Mycology .............................. 4 hrs
BIOL 306/307L General Genetics ................................. 4 hrs
*BIOL 306/307L General Genetics ................................. 4 hrs
BIOL 370 Principles of Biochemistry ........................... 3 hrs
BIOL 380 Epidemiology ............................................... 2 hrs
BIOL 324 Invertebrate Zoology .................................... 4 hrs
Cellular and Molecular Biology ......................................... 6-8 hrs
BIOL 301/L Cell Biology ............................................. 4 hrs

*BIOL

306/307L General Genetics ................................. 4 hrs

**Biology**

**MAJOR**

A minimum of 32 semester hours is required.

**Required courses**

BIOL 130/131L Introduction to Organismal and Environmental Biology .................................................. 4 hrs
BIOL 140/141L Introduction to Molecular and Cellular Biology .................................................. 4 hrs

**Cellular and Molecular Biology** .................................................. 6-8 hrs

Select two courses from below. One must be a laboratory course.

BIOL 301/L Cell Biology ............................................. 4 hrs

306/307L General Genetics ................................. 4 hrs

**Organismal Biology** .................................................. 7-9 hrs

Select two courses from below. One must be a laboratory course.

BIOL 303/L Comparative Animal Physiology ................. 4 hrs
BIOL 309/L Introduction to Mycology .............................. 4 hrs

**Organismal Biology** .................................................. 7-9 hrs

Select two courses from below. One must be a laboratory course.

BIOL 303/L Comparative Animal Physiology ................. 4 hrs
BIOL 309/L Introduction to Mycology .............................. 4 hrs

**Population and Environmental Biology** .................................................. 7-8 hrs

Select two courses from below. One must be a laboratory course.

BIOL 304/L Ecology .................................................. 4 hrs
BIOL 315/L Aquatic Ecosystems ................................... 4 hrs
BIOL 320/L Field Biology ........................................... 4 hrs

**Electives**

Select from above .................................................. 0-4 hrs

*One course in genetics: either BIOL 306, or 360, must be selected.

**MINOR**

A minimum of 20 semester hours is required.

**Required courses** 20 hrs

BIO 130 Introduction to Organismal and Environmental Biology
BIO 140 Introduction to Molecular and Cellular Biology

Cell and Molecular Biology
Select at least one course from major list

Organismal Biology
Select at least one course from major list

Population and Environmental Biology
Select at least one course from major list

**Notes**

1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For the major, 16 semester hours must be in courses numbered 300 or above; for the minor, 7 semester hours in courses numbered 300 or above.
3. At least 15 semester hours in UM-Dearborn courses required for a major.

**CHEMISTRY**

**MAJOR**

A minimum of 32 semester hours is required.

**Required courses**

CHEM 134/L General Chemistry IA ................................ 4 hrs
CHEM 144/L General Chemistry IB ................................ 4 hrs
CHEM 136/L General Chemistry IA ................................ 4 hrs
CHEM 146/L General Chemistry IIB ................................ 4 hrs
CHEM 225 Organic Chemistry I ..................................... 3 hrs
CHEM 226 Organic Chemistry II .................................... 3 hrs
CHEM 227 Organic Lab ............................................... 2 hrs
CHEM 303 Inorganic Chemistry I ................................ 3 hrs
CHEM 344/L Quantitative Analysis .................................. 4 hrs
CHEM 368 Physical Chemistry I .................................... 3 hrs

**Advanced chemistry course** .................................. 3-4 hrs

Select at least one from the following:

CHEM 348 Environmental Chemistry ................................ 3 hrs
CHEM 403 Inorganic Chemistry II ................................... 3 hrs
CHEM 447/L Instrumental Methods of Analysis ................... 4 hrs
CHEM 469 Physical Chemistry II .................................... 3 hrs
CHEM 470 Biochemistry I ........................................... 3 hrs

**Additional Chemistry Lab courses** ................................ 1-2 hrs

Select one from the following:

CHEM 450 Advanced Organic Synthesis and Characterization Laboratory .................................................. 1 hr
CHEM 452 Advanced Inorganic Synthesis and Characterization Laboratory .................................................. 1 hr
CHEM 481 Physicochemical Measurements ...................... 2 hrs

**MINOR**

A minimum of 20 semester hours is required.

**Required courses**

CHEM 134/L General Chemistry IA ................................ 4 hrs
CHEM 144/L General Chemistry IB ................................ 4 hrs
CHEM 136/L General Chemistry IA ................................ 4 hrs
CHEM 146/L General Chemistry IIB ................................ 4 hrs

**Notes**

1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For the major, 16 semester hours must be in courses numbered 300 or above; for the minor, 7 semester hours in courses numbered 300 or above.
3. At least 15 semester hours in UM-Dearborn courses required for a major.
CHEM 225 Organic Chemistry I ......................... 3 hrs
CHEM 226 Organic Chemistry II ........................ 3 hrs
CHEM 303 Inorganic Chemistry I ....................... 3 hrs
CHEM 344/L Quantitative Analysis ...................... 4 hrs

Notes
1. An overall GPA of 2.75 or better is required for a minor.
2. For the minor, 16 semester hours must be in courses 300 or above; for the major, 7 semester hours in courses numbered 300 or above.
3. At least 15 semester hours in UM-Dearborn courses required for the major.

Chemistry/Instructional Track
The Chemistry/Instructional Track concentration is an interdisciplinary program leading to a BS degree in Chemistry, and to a Michigan Provisional Secondary Teaching Certificate. It is a collaboration between the Department of Natural Sciences and the College of Education, Health, and Human Services. For further information, contact Angela Allen, advisor, at the Dept. of Nat. Sciences, (313) 593-5627.

COMPUTER SCIENCE

MINOR ONLY
A minimum of 20 semester hours is required.
Prerequisites: One year of calculus, either MATH 115 and MATH 116 or MATH 113 and MATH 114. (Not included in the 20 hours.)

Required courses
Computer and Information Sciences .................... 12 hrs
CIS 150 Computer Science I .............................. 4 hrs
CIS 200 Computer Science II ............................. 4 hrs
CIS 275 Discrete Structures .............................. 4 hrs

Computer Literacy and Basic Programming ............. 6 hrs
CIS 350 Data Structures & Algorithm Analysis .......... 4 hrs
OR
CIS 381 Industrial Robots .................................. 4 hrs
EDT 211 Technology for Secondary Education ......... 3 hrs

Recommended Electives .................................... 6 hrs
CIS 400 Programming Languages ...................... 4 hrs
MATH 447 Microcomputers in Math for Teachers .... 2 hrs
CIS 29_ (A programming language) .................... 2-3 hrs

Additional Electives
MATH 462 Math Modeling ................................... 3 hrs
MATH 472 Introduction to Numerical Analysis ....... 3 hrs
STAT 325 Applied Statistics I .......................... 3 hrs
(or other electives approved by academic advisor)

The State Certification requirements for Computer Science require three (3) programming languages. The above program requires C++. Students must select two additional languages to meet the three language requirement. One recommended language is LOGO (MATH 447). Students with significant background in a language may petition for a waiver of the course teaching that language.

Notes
1. An overall GPA of 2.75 or better is required for a minor.
2. For the minor, 9 semester hours at 300 or above are required.
Required courses

ECON 201  Principles of Macroeconomics .......... 3 hrs
ECON 202  Principles of Microeconomics .......... 3 hrs
ECON 302  Intermediate Microeconomics .......... 3 hrs
ECON 348  International Trade ...................... 3 hrs
ECON 351  Environmental Economics ............... 3 hrs
ECON 361  U.S. Economic History ................. 3 hrs

Notes
1. An overall GPA of 2.75 or better is required for a major and a minor.
2. For the major, 15 semester hours must be in courses 300 or above; 9 semester hours at 300 or above for a minor.
3. At least 15 semester hours in UM-Dearborn courses required for a major.

ENGLISH

MAJOR
A minimum of 30 semester hours is required.

Required courses

Select one of the following .............................................. 3 hrs
ENGL 461  Modern English Grammar ............... 3 hrs
ENGL 482  History of the English Language ....... 3 hrs
Select one of the following .............................................. 3 hrs
ENGL 323  Advanced Creative Writing .............. 3 hrs
ENGL 327  Advanced Exposition ...................... 3 hrs
Select one of the following .............................................. 3 hrs
ENGL 383  American English ......................... 3 hrs
LING 425  Language and Society ..................... 3 hrs
ENGL 461  Modern English Grammar ............... 3 hrs
ENGL 482  History of the English Language ....... 3 hrs
ENGL 484  World Englishes ......................... 3 hrs
LING 476  Sociolinguistics ............................ 3 hrs

The balance of courses are to be selected with the approval of the degree and certification advisors in accordance with the English concentration requirements. Among the electives, JASS 310, JASS 330 and COMM 335 are allowed. 21 hrs

Supplementary requirement (not included in the 20 hrs):
LIBR 470  Literature for Young People .............. 3 hrs
Note: COMP 105 and 106 are required but do not count toward the English minor.

Notes
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For the major, 18 semester hours must be in courses 300 or above; 9 semester hours at 300 or above for a minor.
3. At least 15 semester hours in UM-Dearborn courses required for a major.

ENGLISH AS A SECOND LANGUAGE

MINOR ONLY
Students must demonstrate experience in learning a modern second language or coursework in a modern second language or permission of Program Coordinator, or take one course in a modern language.

A minimum of 21 semester hours from the following:

Required courses
EDD 447  Teaching English as a Second Language .... 3 hrs
EDD 448  Practicum Teaching English as a Second Language ............................ 1 hr
EDC 455  Assessment in Second Language Learning (K-12) ....................... 2 hrs
ENGL 474  Second Language Acquisition ............. 3 hrs
LING 480  Concepts of Linguistics ................... 3 hrs
LING 476  Sociolinguistics ............................ 3 hrs

Select two of the following ............................................ 6 hrs
ENGL 461  Modern English Grammar .................. 3 hrs
ENGL 482  History of the English Language ....... 3 hrs
ANTH/LING 425 Language and Society ............. 3 hrs
LING/ENGL 482 World Englishes ..................... 3 hrs

Notes:
1. EDD 447/448 is a pre-requisite for EDC 455.
2. LING 480 is a pre-requisite for LING/ENGL 461, LING/ENGL 482, LING/ENGL 484, LING 474 and LING 476.

FRENCH

MAJOR
A minimum of 30 semester hours in coursework beyond second-year proficiency is required.
Prerequisite: French 202 or equivalent French language proficiency (not counted toward major).

Required courses
FREN 301 Advanced Conversation and Composition. ................................................................. 3 hrs
FREN 302 Advanced Conversation and Composition ................................................................. 3 hrs
FREN 332 French Cinema .......................................................................................................... 3 hrs

One specialized language course from the following.............................................. 3 hrs
FREN 305 Language of Business
FREN 306 A Cultural Introduction to French Business
FREN 408 Writing and Translating

Two civilization/culture courses from the following.................. 6 hrs
FREN 336 French Civilization of the Past
FREN 337 France in the Twentieth Century
FREN 338 France of Today
FREN 339 Francophone Literature and Civilization
FREN 408 Writing and Translating

One literature course from the following....................................... 3 hrs
FREN 330 French Literature: Middle Ages - 18th Century
FREN 331 French Literature: 19th and 20th Century
FREN 334 Workshop in French Theater
FREN 339 Francophone Literature and Civilization
FREN 433 Contemporary French Theater

Additional credit hours from other French area offerings....... 9 hrs

MINOR
A minimum of 20 semester hours of coursework beyond second year proficiency is required.

Prerequisite
French 202 or equivalent French language proficiency (not counted toward minor).

Required courses
FREN 301 Advanced Conversation and Composition. ................................................................. 3 hrs
FREN 302 Advanced Conversation and Composition ................................................................. 3 hrs
FREN 332 French Cinema .......................................................................................................... 3 hrs

One specialized language course from the following...................... 3 hrs
FREN 305 Language of Business
FREN 306 A Cultural Introduction to French Business
FREN 408 Writing and Translating

One civilization/culture courses from the following.................. 3 hrs
FREN 336 French Civilization of the Past........................................ 3 hrs
FREN 337 France in the Twentieth Century........................................ 3 hrs
FREN 338 France of Today....................................................... 3 hrs
FREN 339 Francophone Literature and Civilization.......................... 3 hrs

One literature course from the following....................................... 3 hrs
FREN 330 French Literature: Middle Ages – 18th Century .................... 3 hrs
FREN 331 French Literature: 19th and 20th Century ....................... 3 hrs
FREN 334 Workshop in French Theater............................. 3 hrs
FREN 339 Francophone Literature and Civilization ......... 3 hrs
FREN 433 Contemporary French Theater ............ 3 hrs

Additional credit hours from other French area offerings 2-3 hrs

Notes
1. FREN 339 is listed under two headings. Students may count it under one or the other of the headings as they wish, but not under both.
2. Concentrators are encouraged to strengthen their knowledge of French language and culture by participating in any of the approved study-abroad programs.
3. For the major, 30 credit hours of upper-level courses (courses numbered 300 or higher) are required; 20 credit hours of upper-level courses are required for the minor.
4. An overall GPA of 2.75 or better is required for a major or a minor.
5. A minimum of 30 semester hours is required.

MINOR
A minimum of 21 semester hours is required.

Required courses
HIST 101 Ancient World.............................................. 3 hrs
HIST 103 Modern World............................................ 3 hrs
HIST 111 American Past I........................................... 3 hrs
HIST 112 American Past II........................................ 3 hrs
HIST 300 The Study of History........................................ 3 hrs
HIST 361 United States Economics History............. 3 hrs
HIST 3601 Michigan History............................................. 3 hrs

Balance of courses to be selected from three different global areas: Asia, Europe, Africa, the Americas, Russia or the Middle East........ 9 hrs

Notes
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For the major, 15 semester hours must be in courses 300 or above; 9 semester hours at 300 or above for a minor.
3. 15 semester hours in UM-Dearborn courses required for a major. 9 semester hours in UM-Dearborn courses required for a minor.

INTEGRATED SCIENCE

MAJOR
A minimum of 36 semester hours is required spread over three of the four subject areas for Integrated Science. The remaining subject area will constitute your minor. You must minor in one of these four disciplines.

Biology............................................................. 12 hrs

Required courses 8 hrs
BIOL 130/L Introduction to Organismal and Environmental Biology
BIOL 140/L Introduction to Molecular and Cellular Biology
Select one course from the following ........................................ 4 hrs  
BIOL 301/L  Cell Biology ................................................................. 4 hrs  
BIOL 304/L  Ecology ........................................................................... 4 hrs  
BIOL 306  General Genetics ................................................................. 3 hrs  
BIOL 320/L  Field Biology ................................................................. 4 hrs  
BIOL 360  Population Genetics and Evolution ................................. 3 hrs  
BIOL 385/L  Microbiology ................................................................. 4 hrs  

Chemistry ..................................................................................... 12 hrs  

**Required courses**  
CHEM 124/124L  General Chemistry IA .............................................. 4 hrs  
OR  
CHEM 136/L  General Chemistry IIA .................................................... 4 hrs  
OR  
CHEM 146/L  General Chemistry III ................................................... 4 hrs  
CHEM 225  Organic Chemistry I .......................................................... 3 hrs  

Select one course from the following ........................................ 4 hrs  
CHEM 226  Organic Chemistry II ....................................................... 3 hrs  
CHEM 227  Organic Chemistry Laboratory ........................................... 2 hrs  
CHEM 303  Inorganic Chemistry .......................................................... 3 hrs  
CHEM 344/L  Quantitative Analysis ...................................................... 4 hrs  

**Earth Science** ........................................................................ 12 hrs  

**Required courses**  
GEOL 118/L  Physical Geology ............................................................ 4 hrs  
GEOG 203  Weather and Climate ........................................................ 3 hrs  
ASTR 130  Introduction to Astronomy ................................................... 3 hrs  
ASTR 131  Introduction to Astronomy Lab ................................................ 1 hr  

Select one course from the following ........................................ 1-4 hrs  
GEOL 218/L  Historical Geology ............................................................. 4 hrs  
GEOL 332  Hazardous Waste Management .......................................... 3 hrs  
GEOL 340  Remote Sensing ................................................................. 3 hrs  
GEOL 342  Oceanography ................................................................. 3 hrs  
GEOL 370  Environmental Geology .................................................... 3 hrs  
GEOL 377  Field Methods ................................................................. 1 hr  

Physics ...................................................................................... 12 hrs  

**Required courses** .................................................................... 8 hrs  
PHYS 125/L  Introductory Physics I ...................................................... 4 hrs  
OR  
PHYS 150/L  General Physics I ............................................................. 4 hrs  
AND  
PHYS 126/L  Introductory Physics II .................................................... 4 hrs  
OR  
PHYS 151/L  General Physics II ........................................................... 4 hrs  

Select one course from the following ........................................ 4 hrs  
PHYS 305  Contemporary Physics ....................................................... 3 hrs  
PHYS 360/L  Instrumentation for Scientists ........................................... 4 hrs  
PHYS 401  Mechanics ........................................................................... 3 hrs  
PHYS 403  Electricity and Magnetism ..................................................... 3 hrs  
PHYS 405  Optics .................................................................................. 3 hrs  
PHYS 406  Thermal and Statistical Physics ........................................... 3 hrs  

**MINOR**  
A minimum of 20 additional hours is required in one of the subject areas above. See information above under Major.

**Additional Notes:**  
1. An overall GPA of 2.75 or better is required for a major.  
2. At least 15 hours of UM-Dearborn courses are required for a major.

---

### Mathematics

#### Major

A minimum of 30 semester hours from courses numbered above MATH 105 is required.

**Required courses**  
MATH 115  Calculus I ................................................................. 4 hrs  
MATH 116  Calculus II ................................................................. 4 hrs  
MATH 215  Calculus III ................................................................. 4 hrs  
MATH 200  Mathematical Proof and Structures ......................................... 2 hrs  
MATH 216  Introduction to Differential Equations ...................................... 3 hrs  
MATH 227  Intro to Linear Algebra .................................................. 3 hrs  
MATH 331  Survey of Geometry ....................................................... 3 hrs  
MATH 412  First Course in Modern Algebra .......................................... 3 hrs  
MATH 486  Secondary School Mathematics for Teachers ......................................... 3 hrs  

Recommended electives ................................................................. 3 hrs  
MATH 276  Discrete Mathematics .................................................. 3 hrs  
MATH 315  Applied Combinatorics .................................................. 3 hrs  
MATH 372  Computing with Mathematica ......................................... 3 hrs  
MATH 395  Elementary Number Theory ............................................ 3 hrs  
MATH 413  Linear Algebra ............................................................... 3 hrs  
MATH 455  Complex Variables ....................................................... 3 hrs  
MATH 462  Mathematical Modeling ..................................................... 3 hrs  
MATH 480  History of Mathematics .................................................. 3 hrs  

Supplementary requirements (not included in the 30 hours)  
CIS150  Computer Science I ............................................................... 3 hrs  
STAT 325  Applied Statistics I ............................................................ 3 hrs  

#### MINOR

A minimum of 20 semester hours from courses numbered above MATH 105 is required.

**Required courses**  
MATH 115  Calculus I ................................................................. 4 hrs  
MATH 116  Calculus II ................................................................. 4 hrs  
MATH 215  Calculus III ................................................................. 4 hrs  
MATH 200  Mathematical Proof and Structures ......................................... 2 hrs  
MATH 216  Introduction to Differential Equations ...................................... 3 hrs  
MATH 227  Intro to Linear Algebra .................................................. 3 hrs  
MATH 331  Survey of Geometry ....................................................... 3 hrs  
MATH 486  Secondary School Mathematics for Teachers ......................................... 3 hrs  

Recommended electives ................................................................. 3 hrs  
MATH 276  Discrete Mathematics .................................................. 3 hrs  
MATH 315  Applied Combinatorics .................................................. 3 hrs  
MATH 372  Computing with Mathematica ......................................... 3 hrs  
MATH 395  Elementary Number Theory ............................................ 3 hrs  
MATH 413  Linear Algebra ............................................................... 3 hrs  
MATH 455  Complex Variables ....................................................... 3 hrs  
MATH 462  Mathematical Modeling ..................................................... 3 hrs  
MATH 480  History of Mathematics .................................................. 3 hrs  

Supplementary requirement (not included in the 20 hours)  
CIS150  Computer Science I ............................................................... 3 hrs  
OR  
a programming course ................................................................. 3 hrs  

**Notes**  
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For the major, 12 semester hours must be in courses 300 or above; 6 semester hours at 300 or Above for a minor.
3. At least 15 semester hours in UM-Dearborn courses required for a major.

PHYSICS

MAJOR
A minimum of 32 semester hours is required.

Required courses
- PHYS 150/L General Physics I ........................................... 4 hrs
- PHYS 151/L General Physics II ......................................... 4 hrs
- PHYS 305 Contemporary Physics ...................................... 3 hrs
- PHYS 401 Mechanics .................................................... 3 hrs
- PHYS 403 Electricity and Magnetism .................................. 3 hrs

Electives ............................................................................. 15 hrs
- PHYS 320 Environmental Physics ..................................... 3 hrs
- PHYS 360/L Instrumentation for Scientists ....................... 4 hrs
- PHYS 405 Optics ............................................................ 3 hrs
- PHYS 406 Thermal and Statistical Physics ........................... 3 hrs
- PHYS 453 Quantum Mechanics ........................................ 3 hrs
- PHYS 457 Atomic and Nuclear Physics .............................. 3 hrs
- PHYS 460 Advanced Physics Laboratory II .......................... 3 hrs
- PHYS 463 Solid State Physics ............................................ 3 hrs

MINOR
A minimum of 20 semester hours is required.

Required courses
- PHYS 125/L Introductory Physics I ..................................... 4 hrs
OR
- PHYS 150/L General Physics I ......................................... 4 hrs
AND
- PHYS 126/L Introductory Physics II .................................... 4 hrs
OR
- PHYS 151/L General Physics II ......................................... 4 hrs
- PHYS 305 Contemporary Physics ...................................... 3 hrs

Additional hours selected from the following ....................... 9 hrs
- PHYS 320 Environmental Physics ..................................... 3 hrs
- PHYS 360/L Instrumentation for Scientists ....................... 4 hrs
- PHYS 401 Mechanics .................................................... 3 hrs
- PHYS 403 Electricity and Magnetism .................................. 3 hrs
- PHYS 405 Optics ............................................................ 3 hrs
- PHYS 453 Quantum Mechanics ........................................ 3 hrs
- PHYS 457 Atomic and Nuclear Physics .............................. 3 hrs
- PHYS 460 Advanced Physics Laboratory II .......................... 3 hrs
- PHYS 463 Solid State Physics ............................................ 3 hrs

Notes
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. For the major, 18 semester hours must be in courses 300 or above; 9 semester hours in courses 300 or Above for a minor.
3. At least 15 semester hours in UM-Dearborn courses required for a major.

PSYCHOLOGY

MINOR ONLY
A minimum of 21 semester hours is required.

Required courses 12 hrs
- PSYC 170 Psychology as a Natural Science .......................... 3 hrs
- PSYC 171 Psychology as a Social Science .......................... 3 hrs
- PSYC 300 Life-Span Developmental Psychology .................. 3 hrs
- PSYC 320 Social Psychology ............................................ 3 hrs

Select one of the following .................................................. 3 hrs
- PSYC 315 Personality Development .................................. 3 hrs
- PSYC 4445 Personality Assessment .................................. 4 hrs
- PSYC 450 Personality Theory .......................................... 3 hrs

Select two of the following .................................................. 6 hrs
- PSYC 321 Attitudes and Social Behavior ............................ 3 hrs
- PSYC 322 Psychology of Prejudice .................................... 3 hrs
- PSYC 363 Cognitive Psychology ...................................... 3 hrs
- PSYC 418 Cognitive Development .................................... 3 hrs
- PSYC 421 Group Processes ............................................. 3 hrs
- PSYC 461 Learning & Memory ........................................ 3 hrs

Notes
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. Eighteen (18) semester hours must be in courses 300 or above for a minor.
3. PSYC 407 satisfies the EDC 302 (Adolescent Development) requirement for secondary certification students if taken prior to Fall 1996.

SOCIAL STUDIES

MAJOR ONLY
A minimum of 36 semester hours is required.
### Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 101</td>
<td>Ancient World History</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HIST 103</td>
<td>Modern World History</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HIST 111</td>
<td>American Past I</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HIST 112</td>
<td>American Past II</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HIST 3601</td>
<td>Michigan History</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HIST 300</td>
<td>(300-level) Elective</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECON 202</td>
<td>Principles of Microeconomics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECON 201</td>
<td>Principles of Macroeconomics</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

### Notes
1. An overall GPA of 2.75 or better is required for a major.
2. For the major, at least 12 semester hours of the 36 must be in courses 300 or above.
3. 15 semester hours in UM-Dearborn courses required for a major.

### SOCIOLOGY

#### MINOR ONLY

A minimum of 21 semester hours is required.

#### Required courses

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<td>Principles of Sociology</td>
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<td>SOC 423</td>
<td>American Social Classes</td>
<td>3 hrs</td>
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<tr>
<td>SOC 449</td>
<td>The Black Family in Contemporary America</td>
<td>3 hrs</td>
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<td>The Family</td>
<td>3 hrs</td>
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<tr>
<td>SOC 446</td>
<td>Marriage and Family Problems</td>
<td>3 hrs</td>
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<td>SOC 447</td>
<td>Family Violence</td>
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<td>Minority Groups</td>
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<tr>
<td>SOC 430</td>
<td>Population Problems</td>
<td>3 hrs</td>
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<td>SOC 443</td>
<td>Development of Sex Roles</td>
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<td>Sociology of Education</td>
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<td>SOC 460</td>
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<td>SOC 465</td>
<td>Deviant Behavior/Social Disorganization</td>
<td>3 hrs</td>
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<td>SOC 469</td>
<td>Juvenile Delinquency</td>
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### MAJOR

A minimum of 30 semester hours of coursework beyond second-year proficiency is required.

#### Prerequisite:
- SPAN 202 or equivalent Spanish language proficiency (hours do not count toward major).

#### Required courses

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<td>SOC 469</td>
<td>Juvenile Delinquency</td>
<td>3 hrs</td>
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</table>

#### Notes
1. An overall GPA of 2.75 or better is required for a major or a minor.
2. Fifteen semester hours must be in courses 300 or above for a minor.

### SPANISH

#### MINOR

A minimum of 20 semester hours of coursework beyond second-year proficiency is required.

#### Prerequisite:
- SPAN 202 or equivalent Spanish language proficiency (hours do not count toward minor).

#### Required courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 301</td>
<td>Advanced Conversation and Composiiton I</td>
<td>3 hrs</td>
</tr>
<tr>
<td>SPAN 302</td>
<td>Advanced Conversation and Composiiton II</td>
<td>3 hrs</td>
</tr>
<tr>
<td>SPAN 305</td>
<td>Language of Business</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

One civilization/culture courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 356</td>
<td>Spanish Civilization and Culture</td>
<td>3 hrs</td>
</tr>
<tr>
<td>SPAN 357</td>
<td>Latin American Civilization and Culture</td>
<td>3 hrs</td>
</tr>
<tr>
<td>SPAN 358</td>
<td>Spain in the Twentieth Century</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

One literature course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 350</td>
<td>Masterpieces of Latin American Literature</td>
<td>3 hrs</td>
</tr>
<tr>
<td>SPAN 351</td>
<td>Masterpieces of Spanish Literature</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

Two 400-level language courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 406</td>
<td>Advanced Written Expression</td>
<td>2 hrs</td>
</tr>
<tr>
<td>SPAN 409</td>
<td>Oral Expression</td>
<td>2 hrs</td>
</tr>
<tr>
<td>SPAN 420</td>
<td>Introduction to Translation</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

Additional credit hours from other Spanish area offering:

<table>
<thead>
<tr>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-11 hrs</td>
</tr>
</tbody>
</table>

#### Notes
1. Concentrators must take at least one course that deals specifically with Spanish (peninsular) topics such as SPAN 351, 356, or 358 and at least one course that deals with the Latin American topics such as SPAN 350 or 357.
2. Concentrators are encouraged to strengthen their knowledge of Spanish language and Hispanic culture by participating in any of the approved study-abroad programs.
3. For the major, 30 credit hours of upper-level courses (courses numbered 300 or higher) are required; 20 credit hours of upper-level courses are required for the minor.
4. An overall GPA of 2.75 or better is required for a major or a minor.
5. At least 15 semester hours in UM-Dearborn courses are required for a major.
6. Acceptable scores from the MTTC Subject Area Test in Spanish are required for teacher certification.

**SPEECH**

**MINOR ONLY**
A minimum of 21 semester hours is required.

**Prerequisite:** SPEE 101, Fundamentals of Public Speaking, and COMM 220, Survey of Mass Communication (hours not counted toward minor).

**Required Course**
- LIBR 470 Literature for Young People ...................... 3 hrs

Select four courses from the following with faculty advisement
- CASL and the College of Education, Health, and Human Services ................................................. 12 hrs
- SPEE 310 Interpersonal Communications .................. 3 hrs
- SPEE 320 Public Argument and Advocacy .................. 3 hrs
- SPEE 330 Argumentation and Debate ......................... 3 hrs
- SPEE 340 Theories of Persuasion ............................... 3 hrs
- SPEE 400 Speech Skills for Professionals .................. 3 hrs
- SPEE 430 Small Group Communication ....................... 3 hrs

Select two courses from the following with faculty advisement
- CASL and the College of Education, Health, and Human Services
- JASS302Press, Law and Ethics .................................. 3 hrs
- COMM 420 Critical Media Studies ............................. 3 hrs
- COMM 430 International Communication ................... 3 hrs

**Notes**
1. An overall GPA of 2.75 or better is required for a minor.
2. The 21 semester hours must be in courses 300 or above for a minor.
3. It is strongly recommended that students elect COMM 302 and COMM 420.

**PROFESSIONAL REQUIREMENTS**

Preparation for a teaching credential consists of required courses in education. At least two practicums and methods courses in the academic major and minor are required prior to directed teaching.

**Professional Sequence**
A minimum of 34 semester hours of coursework is required.

**Foundations**
- EDA 340 The Foundations of American Education ....... 3 hrs

**Multicultural education**
- EXPS 410 Multiculturalism in School and Society ....... 3 hrs

**Psychology**
- EDC 300 Educational Psychology ........................... 3 hrs
- EDC 302 Adolescent Dev & Clsrn Mgmt ............... 3 hrs
- EDC 304 Practicum Adolescent Dev & Clsrn Mgmt .. 1 hr
- EDC 460 Educating the Exceptional Child ................. 3 hrs

**Methodologies** (See Note #1 below)
- EDD 469 Reading in the Content Areas ................. 3 hrs
- Methods Course in Selected Major/Minor and practicum .. 4 hrs
- EDD 440 Teaching English in Second Grades .......... 3 hrs
- EDD 441 Practicum: English in Second Grades .... 1 hr
- EDD 450 Teaching Mathematics in Secondary Grades .......... 3 hrs
- EDD 451 Practicum: Mathematics in Secondary School ...... 1 hr
- EDD 480 Teaching of Science in the Secondary Grades .......... 3 hrs
- EDD 481 Practicum in Science: Secondary Grades .... 1 hr
- EDD 490 Teaching of Social Studies in Secondary Schools .......... 3 hrs
- EDD 489 Practicum in Social Studies: Secondary Schools .......... 1 hr
- EDD 496 Second Language Teaching: Secondary Level .... 1 hr
- EDD 497 Practicum in Second Language Teaching: Secondary Level .... 3 hrs

Methods course in minor if different than major

**OR**
- Education elective .............................................. 2-3 hrs

**Note:** See CEHHS advisor for Schedule of Classes offerings.

**Professional Semester** (See Notes #3, #4, & #5 below)
- EDD 421 Directed Teaching in Secondary Schools ....... 12 hrs
- EDD 424 Seminar: Teaching in the Secondary Grades .......... 1 hr

**Notes**
1. Enrollment in all the required EDD courses is open only to those who are officially enrolled and in good academic standing in a certification program at UM-Dearborn (junior standing required), with a cumulative GPA of 2.75 or higher.
2. A GPA of 2.75 or better is required overall for the Professional Sequence.
3. Taking and passing the MTTC Professional Readiness Examination.
4. Eligibility for directed teaching requires acceptable scores from the MTTC (Michigan Tests for Teacher Certification) subject area tests: major and minor, and one full term of study at UM-Dearborn (12 semester hours).
5. Eligibility for other endorsements requires acceptable scores from the relevant MTTC subject area tests.

Methods courses are open only to students officially admitted into the School's certification programs (Elementary, Secondary) or the Children and Families program. Therefore, credit for successfully completing such courses will be awarded by the School only to those students who, at the time of enrolling in such courses, are officially admitted and are in good academic standing. These courses are: EDD 421, EDD 424, EDD 440/441, EDD 450/451, EDD 469, EDD 480/481, EDD 490/498, and EDD 496/497.

The program as outlined above meets the Michigan Department of Education teacher certification requirements at the time of this writing. However, changes by the University or the Michigan Department of Education may affect some program requirements. Therefore, the student is strongly advised to find out about possible changes by checking with the Office of Student Records in the College of Education, Health, and Human Services and/or with an Education advisor.
Other Bachelor's Degree Programs

The College of Education, Health, and Human Services awards the Bachelor of General Studies degree (BGS) in the following program.

Children and Families BGS

The Children and Families Program is a Bachelor of General Studies degree. This program is a four-year degree program without elementary teaching certification, designed for students who wish to pursue careers in child care centers, teaching, and administration, social service agencies or in other work with children and families. The 2+2 Children and Families BGS Program is designed to combine selected two-year community college associate degree programs with two years of coursework at the UM-Dearborn. The associate degrees eligible for this program must be covered by articulation agreements between the community college and the UM-Dearborn, College of Education, Health, and Human Services, or are accepted with permission of the Children and Families Program Advisor.

The UM-Dearborn students may be admitted to the Children and Families Program with a minimum grade point average of 2.5.

COURSEWORK AT COMMUNITY COLLEGE

Credits earned to complete designated community college associate degrees will be accepted for the UM-Dearborn BGS degree as lower-division credit (up to a maximum of 62 hours). Courses not applied toward meeting BGS distribution requirements or program prerequisites will be utilized as elective courses or general credit toward the Children and Families BGS degree. (Examples of the variety of community college associate degrees that could be appropriate for this 2+2 program are: Early Childhood Education and Care, and Family Support Services.) Currently, articulation agreements exist with Schoolcraft College and Macomb Community College, Washtenaw Community College as well as a transfer agreement with Oakland Community College.

COURSES TO BE TAKEN AT UM-DEARBORN

Students must complete Composition 220 (COMP 220) at UM-Dearborn.

Students must complete at least 48 hours in courses numbered 300 or above, of which at least 21 hours must be in the College of Education, Health, and Human Services. Courses must be distributed such that three areas of focus are developed, including: 1) Child Studies (Area I); 2) Behavioral Studies (Area II); and 3) an Elective area (Area III) to be chosen by the student with advisor approval. A minimum of 12 upper-level hours must be in Child Studies (Area I) and 9 upper-level hours in Behavioral Studies (Area II) must be earned at UM-Dearborn.

The remaining coursework at UM-Dearborn (to total the required 58-60) will be elected from either lower- or upper-division courses. These can be used to complete distribution requirements, to meet specific prerequisites, or to meet requirements and strengthen background in the Child Studies area.

To complete the program, students must have a 2.5 grade point average overall, 2.5 in Child Studies (Area I) and 2.5 in Behavioral Studies (Area II), and at least a 2.0 in the Elective area (Area III). A total of 120 credit hours is necessary to graduate.

AREAS OF STUDY

The student will elect courses in three areas of study, as follows:

Area I Child Studies 31-40 hrs
Area II Behavioral Science 15+ hrs
Area III Elective Area 12+ hrs

*Elective Area selected with advisor approval from:
Anthropology Health and Society
Business Mathematics
Communication Natural Science
Comp. Info. Science Political Science
**Education recommended) Psychology Sociology
English Spanish
French Women’s Studies
German

* The student may select an alternative third area of study (i.e., one which is not listed above) if approved by the Children and Families Program Advisor.

** If Education is selected as the Elective Area, the following courses may not be elected: EDD 452, EDD 467, EDD 468, EDD 471, EDD 485 and EDD 495.

ADDITIONAL DISTRIBUTION REQUIREMENTS FOR CHILDREN AND FAMILIES BGS

The following categories must be represented as part of the 58+ hours required to be taken at the UM-Dearborn. (Note that these will also satisfy requirements of one of the three BGS degree areas of study.)

Human Development to be chosen from*: ................................ 2-3 hrs
EDC 302 Adolescent Development.......................... 3 hrs
ANTH 415 Nutrition and Human Development........... 3 hrs
PSYC 300 Life-Span Development Psychology............. 3 hrs
PSYC 315 Personality Development.......................... 3 hrs
PSYC 404 Parent-Child Relations............................. 3 hrs
PSYC 405 Gender Roles........................................ 3 hrs
PSYC 442 Psychopathology of Childhood................ 3 hrs
PSYC 450 Personality Theory................................. 3 hrs

Cultural Diversity to be chosen from: .......................... 3 hrs
EXPS 410 Multiculturalism in School and Society.. 3 hrs
ANTH 409 Human Growth and Culture............... 3 hrs
ANTH 421 Education and Culture......................... 3 hrs
ANTH 425 Language and Society............................ 3 hrs
ANTH 482 Psychological Anthropology................... 3 hrs
PSYC 321 Attitudes and Social Behavior................ 3 hrs
PSYC 322 Psychology of Prejudice ...................... 3 hrs
PSYC 432 Socialization of the Child..................... 3 hrs
SOC 350 Sociology of Poverty................................... 3 hrs
PSYC 320 Social Psychology................................. 3 hrs
SOC 403 Minority Groups........................................ 3 hrs
SOC 423 American Social Classes......................... 3 hrs

Child Child Welfare to be chosen from*: .................. 2-3 hrs
EDB 421 Current Issues in Early Ed...................... 2 hrs
SOC 477 Introduction to Social Welfare................. 3 hrs
SOC 478 Sociology/Social Work Internship.............. 3 hrs
SOC 482 Methods: Social Work Practice............... 3 hrs

*Other courses may be substituted with written permission of Children and Families Program Advisor.

CHILD STUDIES (Area I) ........................................... 31-40 hrs

Required courses
EDC -240 Psych. of Child Development ............... 3 hrs
*EDC-241 Practicum in Child Development........... 1 hr
EDC 414 Young Child with Special Needs

EDD 406 Teaching Strategies for Early Childhood Education ................................................. 3 hrs
EDD 410 Practicum in Early Childhood Education ......................................................... 1 hr
EDD 412 Seminar: E.C. Education .................................................................................. 2 hrs

**EDD 418+** Children and Families Internship .......................................................... 4 hrs
**EDD 411+** Directed Teaching: Early Childhood ....................................................... 4 hrs

EDD 442 Early Childhood: Family, School, Community Collaboration ........................................ 3 hrs
EDC 445 Developmental Assessment .................................................................................. 3 hrs
EDD 419 Early Literacy ..................................................................................................... 3 hrs
EDF 450 Health, Nutrition, & PE/Clsm teachers ................................................................ 2 hrs

**Students interested in teaching in preschools, Head Start or child care programs must elect EDD 411. Transcripts will read Children and Families: Early Childhood. Students interested in working with children and families in agencies must elect EDD 418. Transcripts will read Children and Families: Family Support.**

*This course requires a satisfactory grade.

Electives*

EDB 422 Leadership, Advocacy, & Administration of Early Childhood programs ......................... 3 hrs

EDC 412 Social Development and Positive Guidance Techniques ........................................... 3 hrs
EDC 431 Constructivist Education ....................................................................................... 3 hrs
EDC 445 Developmental Assessment .................................................................................. 3 hrs
EDC 446 Cognition & Memory Development ...................................................................... 3 hrs
EDD 416 Workshop: Creative Teaching Early Childhood ..................................................... 2 hrs
EDA 419 Early Literacy and Language Development ................................................................ 3 hrs

EDD 427 Art in Elementary School ....................................................................................... 2 hrs
EDD 433 Early Childhood Spec. Ed. Practicum ................................................................. 1 hr
EDD 446 Family-Centered Intervention Strategies for Early Intervention and Early Childhood Special Education ................................................................. 3 hrs
LIBR 465 Literature for Children .......................................................................................... 3 hrs

*Other College of Education, Health, and Human Services courses may be substituted with written permission of Children and Families Advisor

BEHAVIORAL STUDIES (Area II) ......................................................................................... 15+ hrs

**Required course**

Transfer students must take

EDC 440 Child: Birth to Three ......................................................................................... 3 hrs

One of the following is required unless a lower-division transfer course is approved by advisor ................................................................. 3 hrs
SOC 445 The Family
OR

SOC 446 Marriage and Family Problems

EDC 300 Educational Psychology ....................................................................................... 3 hrs

Courses chosen from the following

- three area disciplines below are recommended:

- ANTH 275, 340, 345, 406, 409*, 415*, 420, 421*, 425*, 455, 482*


SOC 201, 275, 350*, 382*, 383, 403*, 411, 422, 423*, 426,

* ECD 341 waived for those employed as Head Start Teachers


Additional courses may be used with the approval of the Early Childhood Coordinator.

* Courses with an asterisk may also be used to satisfy Children and Families upper-level distribution requirement in Human Development, Cultural Diversity, or Child Welfare.

ELECTIVES (Area III)

Select from the following list with approval of advisor:

Anthropology Mathematics

Business Natural Science

Communication Political Science

Education (highly recommended) Psychology

English Social Studies

French Sociology

German Spanish

Health and Policy Studies Women’s Studies

NOTE: Course numbers and offerings may have changed; please consult your faculty advisor regarding updated course numbers.

**Other Programs**

**Substitute Teacher Program**

The Substitute Teacher Program is designed for students who wish to pursue work as a substitute classroom teacher in K-12 school settings. The program is designed to combine 60 credit hours from community college programs with 30 credit hours of coursework at the UM-Dearborn. UM-Dearborn students may also be admitted to the Substitute Teacher Program upon completion of 60 credit hours with a minimum grade point average of 2.75.

ADMISSION AND APPLICATION PROCEDURE

Individuals seeking entry into the Substitute Teacher Program and transferring credit from another institution should apply through the College of Education, Health, and Human Services Student Services Office (262 FCS).

Many individuals enter the College of Education, Health, and Human Services after completing a portion of college work at other two- and four-year institutions. These persons are considered transfer students. Admission to the College of Education, Health, and Human Services Substitute Teacher Program does not constitute admission to a teacher certification program. Like other students admitted to programs at UM-Dearborn, transfer students entering the College of Education, Health, and Human Services will be expected to fulfill all program requirements.

Potential candidates must observe established procedures in having their credentials evaluated for the Substitute Teacher Program. Request forms are available in the Student Services Office (262 FCS). Credentials are evaluated for acceptable courses required by the program. A maximum of 60 credit hours coursework will be accepted for the UM-Dearborn Substitute Teacher Program. An additional 30 credit hours in a planned program of study are required at UM-Dearborn to complete the program. Students may choose a program emphasis in either elementary or secondary education.
SCHOLASTIC STANDING

A GPA of 2.75/4.0 scale or better is required for admission to the Substitute Teacher Program. Once admitted to the Substitute Teacher Program, students must continue to maintain a 2.75 GPA. The College of Education, Health, and Human Services reviews the records of all its students at the end of each term. If a student’s grade point average for one term drops below 2.75, the student is placed on academic probation. If the overall average remains below 2.75 for another term, the student may not be allowed to re-register as a student in the Substitute Teacher Program or any other teacher education program.

PROGRAM REQUIREMENTS

Requirement for completion: 90 credit hours
Required from UM-Dearborn: 30 credit hours

Program in Elementary Education

Required courses 30 hrs
EDA 340 Foundations of American Education ........... 3 hrs
EDC 300 Educational Psychology ............................ 3 hrs
EDC 301 Practicum in Educational Psychology ........... 1 hr
EDC 240 Psychology of Child Development ............... 3 hrs
EDC 241 Practicum in Psychology of Child Dev............ 1 hr
EDC 417 Management of Classroom Behavior .............. 3 hrs
EDC 443 Family/School/Community Collaboration ...... 3 hrs
EDC 460 Educating the Exceptional Child.................. 3 hrs
EDC 468 Teaching Reading/Language Arts.................. 3 hrs
EXPS 410 Multiculturalism in School and Society...... 3 hrs
EDF 450 Health/Nutrition/PE: Elementary Schools..... 2 hrs
LIBR 465 Literature for Children ........................... 3 hrs
EDC 241 Practicum in Psychology of Child Dev............ 1 hr
EDC 302 Adolescent Development ......................... 3 hrs
EDC 417 Management of Classroom Behavior .............. 3 hrs
EDD 469 Reading in the Content Areas.................... 3 hrs
EDC 443 Family/School/Community Collaboration ...... 3 hrs
EDC 417 Management of Classroom Behavior .............. 3 hrs
EXPS 410 Multiculturalism in School and Society...... 3 hrs
PDED 425 The Educator and the Law ........................ 2 hrs

In the event that any of the above-listed courses have been completed at a community college and are accepted by UM-Dearborn, the following electives are available:

Elementary Electives in Education

EDA 443 Family/School/Community Collaboration ...... 3 hrs
EDC 460 Educating the Exceptional Child................. 3 hrs
EDC 468 Teaching Reading/Language Arts.................. 3 hrs
EXPS 410 Multiculturalism in School and Society...... 3 hrs
EDF 450 Health/Nutrition/PE: Elementary Schools..... 2 hrs
LIBR 465 Literature for Children ........................... 3 hrs
EDT 210 Technology in Elementary Education.......... 3 hrs

In the event that any of the above-listed courses have been completed at a community college and are accepted by UM-Dearborn, the following electives are available:

Elementary Electives in the Content Area

Math ........................................................................... 9 hrs
MATH 385 Math for Elementary Teachers I ............... 3 hrs
MATH 386 Math for Elementary Teachers II ............... 3 hrs
MATH 387 Math for Elementary Teachers III .......... 3 hrs

Science ................................................................... 12 hrs
EXPS 221 Science in the Elementary School .......... 3 hrs
NSCI 231 Inquiry: Physical Science ......................... 3 hrs
NSCI 232 Inquiry: Earth/Planetary ......................... 3 hrs
NSCI 233 Inquiry: Life Science ................................. 3 hrs

Social Studies

At least one course chosen from the following areas: ....... 3 hrs
EXPS 282 History & Civics Elem Schools ................. 3 hrs
or
EXPS 283 Geography & Econ Elem Schools ............... 3 hrs

Humanities

EXPS 200 Visual & Perf Arts/Elem Classroom .......... 3 hrs

PROGRAM IN SECONDARY EDUCATION

Required courses 30 hrs
EDA 340 Foundations of American Education ........... 3 hrs
EDC 300 Educational Psychology ............................ 3 hrs
EDC 301 Practicum in Educational Psychology ......... 1 hr
EDC 302 Adolescent Development ......................... 3 hrs
EDC 417 Management of Classroom Behavior .............. 3 hrs
EDD 443 Family/School/Community Collaboration ...... 3 hrs
EDD 454 Evaluation of Classroom Learning ............... 3 hrs
EDC 460 Educating the Exceptional Child ................. 3 hrs
EDD 469 Reading in the Content Areas ................. 3 hrs
EDT 210 Technology in Secondary Education .......... 3 hrs
EXPS 410 Multiculturalism in School and Society...... 3 hrs
PDED 425 The Educator and the Law ......................... 2 hrs

In the event that any of the above-listed courses have been completed at a community college and are accepted by UM-Dearborn, the following electives are available:

Secondary Electives

Electives are chosen as needed based on subject area content.

Post-Degree Programs

Application forms for any post-degree program can be obtained from the College of Education, Health, and Human Services Student Services Office (262 FCS) or online at http://www.soe.umd.umich.edu/soe_post_cert/

Certification Only Program

(Elementary - COE, Secondary - COS)

Candidates with a degree from an accredited institution and wishing to earn a Michigan Elementary or Secondary Provisional Certificate, must meet the following requirements for these programs:

1. A bachelor's degree from an accredited institution is required for admission along with acceptable scores on the MTTC Professional Readiness Examination for the post-degree certification only program. Students must have a 2.75 GPA overall and in their major and minor to be admitted to the College of Education, Health, and Human Services teacher certification program. Once admitted to the teacher certification program, students must continue to maintain a 2.75 GPA.

2. To be eligible for directed teaching (student teaching), students must take and pass the relevant MTTC subject area test, and “Elementary” test for seekers of elementary certification; the major and minor tests for seekers of secondary certification.

3. When the desired major/minor is incomplete and the GPA is 2.75 or better, and the student is admitted to the post-degree teacher certification program, students may complete their program to earn a Provisional Certificate with an additional minimum of 12 semester hours for the major and nine (9) semester hours for the minor to be completed with UM-Dearborn courses and the cumulative GPA must be 2.75 or better.

4. Potential candidates must observe established procedures in having their credentials evaluated for the certification program. Request forms are available in the Student Services Office of the College of Education, Health, and Human Services. Credentials are evaluated for acceptable majors, minors, and those supplementary courses, required by the program.

5. At least two practica at UM-Dearborn shall be required of all COE/COS students prior to student teaching.
6. A maximum of six semester hours (non-UM-Dearborn courses) will be accepted, if applicable, toward the professional sequence, not including directed teaching or seminar. The cumulative GPA in the professional sequence must be 2.75 or better. No community college courses can be used for credit in the professional sequence of required courses. Grades earned in professional sequence courses must observe the criteria established for directed teaching eligibility.

7. When there is evidence to warrant an adjustment in requirements for an admitted COE/COS student, the Professional Standards Committee will act accordingly. Students desiring re-evaluations may use the established petition process.

8. To be eligible for certification, students must have acceptable scores from the Michigan Tests for Teacher Certification Subject Area Tests for every major, minor and endorsement.

9. No credit toward program is allowable for ROTC and/or physical education.

10. Foreign transcripts must be evaluated by:

   Educational Credential Evaluators, Inc.
   PO Box 514070
   Milwaukee, WI 53203-3470
   Telephone: (414) 289-3400 or

   World Evaluation Services
   Bowling Green Station
   PO Box 5087
   New York NY 10274-5087
   Telephone: (212) 966-6311

11. An English language proficiency test may be required for non-native English speakers.

12. For all practicums and student teaching, the following are required:
   a. TB clearance,
   b. Criminal background clearance
   c. Evidence of training for dealing with infectious diseases and blood-borne pathogens and,
   d. CPR certification

   Individuals entering this program are required to meet the basic certification requirements at the time they are admitted, and which are appropriate for the particular certificate desired. To enroll, it is necessary to apply for admission to the UM-Dearborn as a "Certification Only Student," through the College of Education, Health, and Human Services. Forms are available in the College of Education, Health, and Human Services Student Services Office.

**Professional Education Certificate Program (PEC)**

The Professional Education Certificate Program is for persons with a Michigan Provisional Teaching Certificate wishing to earn a Professional Education Certificate. Upon the expiration of the Michigan Provisional Teaching Certificate, teachers are required by state law to secure a Professional Education Certificate in order to retain a valid teaching credential. In recommending individuals for this certificate, the University forwards requests to the Michigan Department of Education that, in turn, issues the certificate. Application forms for this program are available in the College of Education, Health, and Human Services Student Services Office (262 FCS) or online at http://www.soe.umich.edu/soe_post_cert/.

**CURRICULUM**

Individuals already holding a valid Michigan provisional certificate can qualify for a Michigan Professional Education Certificate by completing the 18 semester hour post-degree program offered at UM-Dearborn through the College of Education, Health, and Human Services. This program is ideal for the working teacher who wants to maintain a valid teaching credential but is not interested in pursuing a graduate degree.

The Professional Education certificate program is tailor-made to fit the particular professional needs and goals of the individual student. To meet residency requirements, students must satisfactorily complete at least 12 semester hours of advisor-approved courses in a planned 18-hour program. Occasionally, some post-degree credit earned at other accredited institutions may also be applied toward the student's program. Such credit, however, is allowed only when written permission is obtained prior to enrollment in any such course or credit-granting workshop. The entire course of study, however, can be completed at UM-Dearborn by attending classes during late afternoons, early evenings, and summers. Correspondence courses are not accepted.

**ADMISSION**

1. Admission to this post-degree program (PEC) requires formal application to the program, a Michigan Provisional Teaching Certificate, and an approved bachelor's degree. Official copies of transcripts and a copy of the teaching certificate are required.

2. The plan of study is agreed upon with an advisor who will meet regularly with the student to advise and monitor progress of the 18 semester hour plan of work. It is the student’s responsibility to make annual appointments with the advisor.

When the renewal of a provisional certificate is desired, nine semester hours of approved credit will permit the student to file an application for renewal of the existing provisional certificate. Effective September 1, 2013

**First Provisional Renewal** requires completion of **ONE OF THE FOLLOWING**:

- Possession of a current or expired Michigan provisional certificate.

- 6 semester hours in a planned course of study since the issuance of the provisional certificate at an approved educator preparation institution.

- 180 State Continuing Education Clock Hours (SCECHs) appropriate to the grade level and content endorsement(s) of the certificate held since the issuance of the provisional certificate.

- Combination of semester credit hours and SCECHs (30 SCECHs equate to 1 semester credit hour) since the issuance of the provisional certificate.

- Completion of an approved master’s or higher degree in areas appropriate to K-12 teaching at any time at an approved educator preparation institution.

**Second Provisional Renewal** requires completion of **ONE OF THE FOLLOWING**:

- Possession of a current or expired Michigan provisional certificate.

- 6 semester hours in a planned course of study since the issuance of the provisional certificate at an approved educator preparation institution.
Requirements for the professional education certificate include:

- Possession of a current or expired Michigan provisional certificate.
- Having taught successfully for the equivalent of three years under the Michigan provisional certificate and within the subject area endorsements and grade level on the certificate (including substitute teaching).
- Presenting evidence of having completed a minimum of six semester hours of reading methodology if the teacher holds an elementary certificate or three semester hours for secondary certificate holders.
- Effective July 1, 2009 - EDC 560 Reading Diagnostics
  And ONE of the following since the issuance of the Provisional Certificate:
  - 6 semester hours in a planned course of study at an approved educator preparation institution
  - 180 State Continuing Education Clock Hours (SCECH)
  - 150 annual District Provided Professional Development (DPPD) hours

- Combination of the three.

1. Possession of a current or expired Michigan provisional certificate.
2. When the Professional Education Certification Program is being used to earn an additional major or minor, all required coursework for the major or minor must be completed prior to recommendation. Such coursework may require more than the minimum of 18 hours. Also, the Michigan Tests for Teacher Certification (MTTC) Subject Area Tests must be taken and acceptable scores earned prior to recommendation.

Enhancement Program (EP)

This program (EP) is for persons with a Michigan Permanent, Continuing, or Professional Education Certificate who wish to enhance their certificates with either an early childhood (ZS), and English as a second language (NS), endorsement. Individuals entering this program are required to meet all requirements leading to the desired additional endorsement on their teaching certificate. Additionally, the MTTC Subject Area Test must be taken and acceptable scores achieved before a recommendation can be made to the state. Application forms for this program are available in the College of Education, Health, and Human Services Student Services Office, (262 FCS) or online at http://www.soe.umd.umich.edu/soe_post_cert/.

Endorsement Programs Early Childhood (ZS) and English as a Second Language (NS)

These endorsements are available to certified teachers who wish to enhance their certificates with either an early childhood (ZS), and English as a second language (NS), endorsement. This is a planned program where the selection of courses will vary depending on evaluation of the student's prior coursework. Those interested in an endorsement can enroll in one of two post-degree
programs: Professional Education Certificate (PEC), or Enhancement Program (EP), as described above, or may complete these endorsement programs under a master's degree plan (some undergraduate courses may be applied toward these endorsements, but will not apply toward a master's degree).

Graduate Degree Programs

The College of Education, Health, and Human Services also offers several master’s degree programs including a MA in Early Childhood Education, a MA in Educational Technology, a MA in Education, a MA in Teaching, a MEd in Special Education, a Master of Arts in Educational Leadership, a MS in Science Education, an Education Specialist, and Doctor of Education. Interested students should consult the Graduate Catalog for details of admission requirements and programs or online at http://www.soe.umd.umich.edu/soe_masters/.

Advanced Degree Programs

The College of Education, Health, and Human Services also offers the Education Specialist (EdS) and Doctor of Education (EdD) degree programs. Interested students should consult the Graduate Catalog for details of admission requirements and programs or online at http://www.soe.umd.umich.edu/soe_masters/.

Education Courses For Non-Education Students

At UM-Dearborn, students need not be enrolled in a teacher certification program to elect certain education courses. Many courses offered by the College of Education, Health, and Human Services are open to non-education students. Degree candidates enrolled in any academic unit of the campus, as long as they have earned at least 55 semester hours of credit, generally are free to elect any course in education except for specialized methods courses (those required for directed teaching), directed teaching, and the directed teaching seminar. It is expected that when making such elections, all prerequisites and other stipulations associated with specific courses will be carefully observed and followed.

Any student planning on a career in which the student might be expected as a matter of course to instruct others or to help others learn could find some study of education to be a valuable experience. This is particularly true for those intending to pursue careers in fields involving human relations and social interaction. Certainly, there can be no better preparation for assuming some of the responsibilities of parenthood than a background in education. Certainly, there can be no better preparation for assuming some of the responsibilities of parenthood than a background in education. (See the "Children and Families" degree program that appears earlier in the Catalog.)

Education courses are ideally suited, in many instances, to serve as electives as well as cognate studies. Students may elect them either to augment their general college work or to enrich their own cultural growth. It is always important that the student consult with the student's own academic advisor before electing any college course. Faculty in the College of Education, Health, and Human Services, however, are available to help individuals identify education courses which might be of the most benefit to them. For further information, non-education students are invited to visit the School offices or contact the School at (313) 593-5090 or the following website: www.soe.umd.umich.edu/.

Course Offerings

Courses offered by the College of Education, Health, and Human Services are numbered following the general course numbering system. Courses numbered 300-499 are undergraduate upper-division courses. Courses numbered 500 and above are graduate courses.

Each education course also carries an alphabetical letter designation. This designation reflects the course's location in the subject-matter classification system used by the College of Education, Health, and Human Services.

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In designating courses on election forms, etc., students should use the word "Education" followed by the course letters, then the number of the particular course (i.e., Education, or EDA 340.)

Students must have junior standing (completion of at least 55 semester hours of credit) before they may elect courses for education credit. This regulation does not pertain to the following courses: EDA 340, EDC 340, EDC 341, LIBR 465, LIBR 470, and EXPS 410.

Education (ED) COURSE OFFERINGS

EDA 205 Introduction to Education

3.000 Credits

Must be enrolled in one of the following Levels:

- Undergraduate
- May not be enrolled in one of the following Classes:
- Post-baccalaureate NCFD
- Graduate

This course is designed to introduce students to the field of education. In this course students will gain a working knowledge of teacher certification and professionalism, state standards, and high-stakes testing. Additionally, students will be introduced to basic forms of lesson planning, classroom assessment, and instructional techniques. As a part of the course, all students will begin to use the Coll of Ed, Health, & Human Ser E-Portfolio system.
EDA 340 Foundations of American Ed
2.000 TO 3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Post-baccalaureate Cert only
Senior
Graduate
Junior

A general survey of education's theoretical and structural foundations. This course introduces students to the history and philosophy of education as well as to the organization and financing of schools in America. Particular attention will be given to the role of education in a democratic society and to the notion of teaching as a profession.

EDA 419 Early Literacy/Language Devel
3.000 Credits
May not be enrolled in one of the following Classes:
Graduate
Sophomore
Freshman

This course examines early language development, the factors that contribute to its growth and the role that it plays in the development of literacy. Diagnostic techniques for assessing language and literacy and teaching strategies and materials to facilitate language and literacy growth in children birth through third grade will be discussed.

EDA 450 Hist/Theory of Bilingual Educ
2.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
Junior

The course provides an extensive background on bilingual education (programs where two languages are used as media of instruction) in the United States, and the events that led to the inception of such programs on the Federal as well as the State levels. The course provides a background on the concept itself, its rationale and implementation.

EDB 421 Current Issues in Early Ed
2.000 Credits
Must be enrolled in one of the following classes:
Post-baccalaureate Cert only
Undergrad Certification only
Junior

Examines the expanding field of early childhood in order to understand major issues which are shaping the development and support of early education and child care programs. Designed for present and future teachers, administrators, and other workers in the field of early childhood, and for the general public who must participate in major pending decisions relating to such questions as proposed changes in state licensing, teacher certification, and funding sources.

EDB 422 Lead, Advoc, Admin Early Ch Prg
3.000 Credits
Must be enrolled in one of the following classes:
Junior
Graduate
Prerequisites: EDC 240

This course promotes role of the early childhood educator as a leader and advocate for young children and families. Designed for present and future teachers, administrators and other professionals who participate in decisions relating to public policy and legislation, state licensing, teacher certification, funding resources, parental involvement and other issues affecting young children and families.

EDC 240 Psych of Child Development
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
Co-requisites: EDC 241

An introductory presentation of facts and theories concerning the development of the child from birth to adolescence. The practical applications of present knowledge in this field will be examined. Field observations and directed interactions with children are required. Limited to undergraduates. Not open to students with credit in C540.

EDC 241 Psych: Child Devel Practicum
1.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Sophomore
Freshman
Junior
Co-requisites: EDC 240

A supervised field experience related to the study of child development involving a minimum of 45 clock hours of observation and work spread over a semester in an early childhood setting.

EDC 300 Educational Psychology
2.000 TO 3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only

Consideration of research findings relevant to the learner in the classroom with emphasis on factors that influence learning. Topics include: the teacher trainer's role in motivation; formulation of generalizations pertaining to the physical, mental, social, and emotional development of learners; analysis of selected aspects of the teaching-learning situation including the dynamics of interaction, classroom control, guidance, and appraisal of growth.

EDC 301 Practicum in Ed Psychology
1.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
A supervised field experience related to the study of educational psychology involving a minimum of 45 clock hours of participation/observation and work spread over a semester in a school setting. TB clearance and criminal background check are required.

EDC 302 Adol Devl & Classroom Mgmt
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only

An examination of the current theories and research findings concerning the physical, social, emotional, and cognitive development during the early and late adolescent years. Theory will be related to educational and parenting practices. Significant material will be included addressing classroom management of the middle school and high school classroom using simulation, case studies and videos of actual classrooms.

EDC 304 Pract Adol Devl & Clsrn Mgmt
1.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
May not be enrolled in one of the following Classes:
Undergrad Certification only
Undergraduate NCFD
Graduate
Co-requisites: EDC 302

This one credit practicum consists of 45 clock hours of observation over the course of the semester in a secondary classroom. Reflective journals and guided assignments will focus the observations on an understanding of developmental concepts and classroom management policies. Active participation with secondary students will ensure the application and critique of these concepts in an educational setting.

EDC 390 Observ and Particip in Ed Set
1.000 TO 3.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only

An opportunity for supervised observations of, and participation with, children and adolescents in educational settings. For students who need additional laboratory experience prior to student teaching.

EDC 401 Introduction to LD
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
Senior
Post-baccalaureate NCFD
Junior
Post-baccalaureate Cert only

Introduction to LD is designed to provide students with an overview of the field of learning disabilities. Discussions will include physical, social, emotional, and cognitive comparisons of developmental differences and similarities between persons of all ages with and without LD, historical and theoretical perspectives, current trends and issues, assessment, and collaboration among educators.

EDC 410 Dev Peer/Social Relationships
2.000 Credits
Prerequisites: EDC 340 or EDC 240

Students will examine the processes of peer relations and socio-emotional development from birth to adolescence. Topics to be covered in this course include attachment, peer popularity and intimacy. As well, students will discuss the importance of the family on social development. Classroom environment and peers as educators will also be covered.

EDC 412 Social Devl/Pos Guidnce Techn
3.000 Credits
Must be enrolled in one of the following Degrees:
*Teacher Certificate
Bachelor of Arts
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following Major fields of study:
Early Childhood
Elementary Certification
Must be enrolled in one of the following classes:
Post-baccalaureate Cert only
Senior
Junior

This course will examine the process of social and emotional development in childhood through adolescence. Positive strategies to promote and guide this development in the classroom will be explored using behaviorist and constructivist frameworks. Topics will include character education, discipline models, conflict resolution and family collaboration. Guiding the development of emotional regulation, perspective taking and peer relationships in children including children with special needs will be investigated.

EDC 414 Early Child Ed Special Needs
3.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: EDC 540 or EDC 340 or EDC 240

Focuses on the psychological and educational needs of the young child with special needs. Discusses identification techniques and educational strategies for teaching in a regular early childhood classroom with young children having special needs. Special emphasis will be placed on behavioral, linguistic, and intellectual areas. Suitable for classroom teachers, childcare directors, and teachers in training.

EDC 417 Mgmt of Classroom Behavior
3.000 Credits
Must be enrolled in one of the following classes:
Provides intervention and management techniques for teachers and teacher candidates using principles of behavior modification. Includes examination of theoretical foundations, research and field reports, participation in self-management projects, and consideration of various applications in regular and special classrooms. Field experience is optional. Course will focus on classroom management in early childhood and elementary environments, allowing a more focused examination of topics and case studies geared to those grade levels. (OC)

EDC 420  Hum Sexuality: Psyc-Ed Concepts  
2.000 Credits  
Must be enrolled in one of the following Levels: 
Undergraduate  
Must be enrolled in one of the following classes: 
Senior  
Junior  

The course is intended to acquaint elementary and secondary teachers with the elements that comprise sexuality as it relates to their lives and those of their students. Although a basic core of information is to be covered, the content of each class will provide for the needs and interests of the teachers. Teachers will be directly involved in identifying problems and the development and collection of strategies for problem resolution.

EDC 431  Constructivist Education  
3.000 Credits  
Must be enrolled in one of the following classes: 
Senior  
Undergrad Certification only  
Junior  
Prerequisites: (EDC 340 or EDC 240) and (EDC 341 or EDC 241)  

An examination of constructivist theory and its application to educational practices. The nature and stages from birth through adolescence of cognitive and social development from the constructivist viewpoints of Piaget, Vygotsky, and others will be discussed. The major focus will be the application of constructivist theory to educational goals, teaching strategies and curriculum. (OC)

EDC 440  The Child: Birth to Three  
3.000 Credits  
Must be enrolled in one of the following Levels: 
Rackham  
Graduate  
Must be enrolled in one of the following classes: 
Senior  
Undergrad Certification only  
Junior  
Prerequisites: EDC 340  

An examination of current theories and findings concerning the physical, social, emotional, and intellectual development of the young child from prenatal to three years of age. Topics include fetus maturation, capabilities of the newborn, language, cognition, and environmental influences on development. Theory will be related to infant care practices in the home and in early childhood centers.

EDC 442  EC: Fam/Sch/Comm Collaboration  
3.000 Credits  
Must be enrolled in one of the following Colleges: 
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes: 
Senior  
Junior  
Prerequisites: (EDC 340 or EDC 240) and (EDC 341 or EDC 241)  

Focuses on factors that influence the building of partnerships among early childhood professionals, families and communities. Includes understanding and working with culturally and linguistically diverse families. Various communication and problem-solving strategies that promote family involvement and community outreach are practiced through discussion and role play.

EDC 443  Family/School/Community Collab  
2.000 Credits  
Must be enrolled in one of the following classes: 
Senior  
Undergrad Certification only  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDC 340  

Characteristics, roles, and functions of contemporary families are described. Various communication and training strategies designed to promote collaboration and teamwork within and between the school staff, the families, and community are described and practiced through discussion, problem-solving activities, and role playing. Family effectiveness assessment instruments and strategies are also described and practiced.

EDC 445  Develop Assess of Young Child  
3.000 Credits  
Must be enrolled in one of the following classes: 
Senior  
Undergrad Certification only  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDC 340  

Survey and demonstrations of formal and informal measures to assess young children's physical, social, intellectual, and emotional development. Instruction in some techniques appropriate for use by classroom teachers, childcare directors, health care professionals, and others who are interested in assessing the development of children aged birth to nine years. For graduate credit elect EDC 545. (AY)

EDC 446  Cog/Memory Dev in Children  
3.000 Credits  
Must be enrolled in one of the following Levels: 
Undergraduate  
Must be enrolled in one of the following classes: 
Senior  
Junior  
Prerequisites: EDC 240 or EDC 340  

Examines the theories and recent research on the development of cognition and memory. Selected topics include: perception, language, representation, social cognition and problem solving. Educational implications and strategies for developing children's thinking and memory are explored.

EDC 454  Formal & Informal Testing & Eval  
2.000 TO 3.000 Credits  
Must be enrolled in one of the following classes: 
Senior  
Prerequisites: (EDC 340 or EDC 240) and (EDC 341 or EDC 241)  

Focuses on factors that influence the building of partnerships among early childhood professionals, families and communities. Includes understanding and working with culturally and linguistically diverse families. Various communication and problem-solving strategies that promote family involvement and community outreach are practiced through discussion and role play.
In this course students will develop their knowledge and skills in traditional and non-traditional methods for evaluating classroom learning, performance technology and training. Students will learn how to construct evaluations, tests, analyze evaluation results, conduct program evaluation and educational assessment in relation to performance technology, training, and teaching and learning. (OC)

EDC 455 Assmt: Sec Lang Learning K-12
2.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: EDD 447 and EDD 448

In this course students will learn to identify, assess, and place second language learners for appropriate instruction and instructional programs. Students will review, evaluate, and implement a variety of assessments and strategies intended for use with limited English proficient students, K-12. Students will also examine the impact and issues regarding high-stakes assessments on English language learners. Official admission to and good standing in the teacher certification program are required. (W).

EDC 460 Educating the Exceptional Child
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only

Characteristics, identification, assessment, and instruction of students with exceptionalities are addressed. Includes students with learning disabilities, behavior disorders, emotional impairment, mild mental retardation, communicative disorders, visual and hearing impairments, orthopedic impairments, giftedness, and chronic medical conditions. Service delivery models, general assessment procedures, and curricular and instructional adaptations that help integrate students with exceptionalities into the general education classroom will also be addressed.

EDC 476 Literacy Assessmt for Instr
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: EDD 468 and (EDD 419 or EDA 419)

Topics include various diagnostic tools for reading, writing, speaking, and listening. Students will learn to implement a variety of diagnostic techniques for assessing literacy for instructional purposes and communication with parents, other professionals, and paraprofessionals about student progress.

EDD 301 Directed Teach in Second Schls
6.000 TO 12.000 Credits
Must be enrolled in one of the following classes:
Senior
Undergrad Certification only
Post-baccalaureate Cert only
Prerequisites: EDC 300 and EDC 301 and EDC 302 and EDA 340 and EDC 460 and EDD 469
Co-requisites: EDD 304

Directed teaching consists of a teaching internship in a selected classroom for a full term under the direction of an experienced teacher. Includes a brief period of observation followed by several weeks of responsible teaching including the writing, implementing, and evaluation of lesson plans using University-approved practices. Official admission and good standing in the certification program are required. Methods courses in the major and minor and valid TB clearance required.

EDD 304 Seminar: Teach Secondary Grds
1.000 TO 2.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Post-baccalaureate Cert only
Co-requisites: EDD 301

Draws upon the resources found in the directed teaching environment. Considers problems and issues in four broad areas: students in the school, the teacher's professional responsibilities, curriculum understandings, and administrative/organizational problems. Open only to students enrolled in EDD 301.

EDD 305 Direct Teach in Elem School
6.000 TO 1 2.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Graduate
Post-baccalaureate Cert only
Prerequisites: EDC 300 and EDC 301 and (EDC 340 or EDC 240) and EDC 460 and EDD 452 and EDD 467 and EDD 468 and EDD 471 and EDD 485 and EDD 495 and EDF 450
Co-requisites: EDD 307

Directed teaching consists of a teaching internship in a selected classroom for a full term under the direction of an experienced teacher. Includes a period of brief observation followed by several weeks of responsible teaching including the writing, implementing, and evaluation of lesson plans using University-approved practices. Official admission to and good standing in certification program as well as valid TB clearance are required.

EDD 307 Seminar: Teaching Elem Grades
1.000 TO 2.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Certification only
Post-baccalaureate Cert only
Co-requisites: EDD 305

Draws upon experience in elementary directed teaching. Considers pupils in the school, classroom environment, teaching competencies, professional responsibilities, school curriculum
and policies, and administrative/organizational problems. Open only to students enrolled in EDD 305.

**EDD 404 Inquiry Based Curr Prim Grades**
- **3.000 Credits**
- Must be enrolled in one of the following classes:
  - Senior
  - Junior
- Prerequisites: EDC 340 and EDC 341 and PIII 1 and MGPA 2.75 and MIBR P and MIBM P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
- Co-requisites: EDD 410

This course examines how teachers can apply inquiry method to all curriculum areas in the primary grades. Major focus will be designing curriculum to meet state and professional guidelines within a developmentally appropriate context.

**EDD 406 Teach Strategies Early Child**
- **3.000 Credits**
- Must be enrolled in one of the following classes:
  - Undergrad Certification only
  - Senior
  - Junior
  - Post-baccalaureate Cert only
- Prerequisites: (EDC 240 or EDC 340) and (EDC 341 or EDC 241) and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (COMP 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
- Co-requisites: EDD 410

Focuses on the developmentally appropriate educational practices for children from infancy through the primary grades. Introduces various procedures and strategies to stimulate inquiry in the early childhood classroom. Observation skills, planning, and implementing of lessons in the field will be emphasized. Class seminar designed to correlate theory with observation and field work.

**EDD 407 Workshop: Global Ed Soc Stds**
- **1.000 TO 3.000 Credits**
- Must be enrolled in one of the following classes:
  - Junior
  - Graduate
- Prerequisites: (PIII 1 and MGPA 2.75 and MIBR P and MIBM P and MIBW P and CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

A course designed to help elementary and secondary teachers develop strategies that will help them to teach about an interdependent and changing world. Concepts such as change, the culture, and interdependence will be introduced and examined in terms of implementation within the framework of the existing social studies curricula.

**EDD 410 Practicum in Early Child Ed**
- **1.000 Credits**
- Must be enrolled in one of the following classes:
  - Undergrad Certification only
  - Senior
  - Junior
  - Post-baccalaureate Cert only
- Prerequisites: (PIII 1 and MGPA 2.75 and MIBR P and MIBM P and MIBW P and CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
- Co-requisites: EDD 406

A supervised field experience related to the study of early childhood education involving a minimum of 45 clock hours of observation and work spread over a semester in an early childhood school setting. TB clearance, FIA clearance, criminal background check, and physician's statement of good health are required. (F,W).

**EDD 411 Directed Tchg: Early Childhood**
- **3.000 OR 4.000 Credits**
- Must be enrolled in one of the following classes:
  - Undergrad Certification only
  - Senior
  - Junior
  - Post-baccalaureate Cert only
- Prerequisites: PIII 1 and MGPA 2.75 and MIBR P and MIBM P and MIBW P and (COMP 106 or COMP 220 or CPAS 40 or COMP 280 or COMP 270) and EDD 406 and EDD 410
- Co-requisites: EDD 412

Supervised observation and teaching in early childhood programs under the joint direction of university and school personnel. Open only to students in the Early Childhood Education program or Children and Families Program who have been approved by the program director. Must be elected concurrently with EDD 412. TB clearance, FIA clearance, criminal background check, and physician's statement of good health are required.

**EDD 412 Seminar in Early Childhood Ed**
- **2.000 Credits**
- Must be enrolled in one of the following classes:
  - Undergrad Certification only
  - Post-baccalaureate Cert only
  - Senior
  - Graduate
  - Junior
- Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270) and EDD 406 and EDD 410

Focuses on developmentally appropriate educational practices for children in early childhood programs. With an emphasis on writing developmentally appropriate lesson plans, the Reggio Emilia Inspired Approach, assessment of young children, classroom and staff management, multiculturalism, family centered approaches, children with special needs and professional development. The seminar provides a theoretical foundation for the field placement (D411, D418 and D494).

Open only to students in Early Childhood or Children and Families program who have been approved by the program director. TB clearance and physician's statement of good health required. EDD 406 and 410 are required for undergraduates.

**EDD 413 LD Elem Directed Teaching**
- **2.000 Credits**
- Must be enrolled in one of the following Levels:
  - Undergraduate
- Must be enrolled in one of the following Colleges:
  - Coll of Ed, Health, &Human Ser
- Must be enrolled in one of the following Major fields of study:
  - Special Education

Must be enrolled in one of the following classes:
- Senior
Field experience with elementary students with learning disabilities in general and special education classrooms. Experiences include delivery of direct instruction through observation, tutoring, small and large group instruction, curriculum development and adaptations, participation in the IEP and ITP process, collaboration and co-teaching with regular classroom teachers in various academic content areas, and other activities under the on-site supervision of a certified teacher of LD and LD certified University field supervisor. Pre-requisite: Grade of "B" or better in C401, N401, N403, N404, and N402 General Ed. Directed Teaching: EDN 408 and EDD 420.

EDD 416 Creativty/Crit Thnk Yng Childr
3.000 Credits
Must be enrolled in one of the following classes:
Junior
Senior
Graduate
Prerequisites: EDC 340 and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

This course intends to study the processes and products of creativity for both adults and young children. Strategies for promoting the emerging creative disposition of the young child, birth to eight years, will be explored. Areas of focus will include art, music, movement, dramatic play, improvisation, storytelling, and problem-solving. The importance of understanding and encouraging the young child's capacity for representation skills will be emphasized.

EDD 417 Wkshp: Biling/Bicult Pupils
1.000 TO 4.000 Credits
Must be enrolled in one of the following classes:
Junior
Graduate
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

The course will focus on developing a) an understanding of bilingual and bicultural pupils by examining their ethnic and racial backgrounds in terms of their values and institutions and how these affect their adjustment in the school and community environments, and b) effective learning strategies, techniques, and materials to use in various content areas.

EDD 418 Children and Families Intern
4.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: EDD 411 and EDD 412

Supervised observation and teaching in an Early Childhood classroom setting, or parent education program in a Family Service Agency under the joint direction of University and school or Agency personnel. Open only to students in the Children and Families program who have been approved for the course by the program director. Must be elected concurrently with EDD 412. TB clearance, FIA clearance, criminal background check, and physician's statement of good health required.

EDD 419 Early Literacy/Language Develp
3.000 Credits
Must be enrolled in one of the following Programs:
AB-Early Childhood
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBR P and MIBM P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270) and EDA 340

This course examines early language development, the factors that contribute to its growth and the role that it plays in the development of literacy. Diagnostic techniques for assessing language and literacy and teaching strategies and materials to facilitate language and literacy growth in children birth through third grade will be discussed. (YR)

EDD 420 LD Sec Directed Teaching
2.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following Major fields of study:
Special Education
Must be enrolled in one of the following classes:
Senior
Prerequisites: EDC 401 and EDN 401 and EDN 403 and EDD 413 and EDD 415
Co-requisites: EDN 408 EDD 413

Field experience with elementary students with learning disabilities in general and special education classrooms. Experiences include delivery of direct instruction through observation, tutoring, small and large group instruction, curriculum development and adaptations, participation in the IEP and ITP process, collaboration and co-teaching with regular classroom teachers in various academic content areas, and other activities under the on-site supervision of a certified teacher of LD and LD certified University field supervisor. Pre-requisite: Grade of "B" or better in C401, N401, N403, N404, and N402 General Ed. Directed Teaching Co-requisite: EDN 408.

EDD 421 Directed Teach Secondary Sch
6.000 TO 12.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
Senior
Undergrad Certification only
Post-baccalaureate Cert only
Prerequisites: EDC 300 and EDC 301 and (PSYC 407 or EDC 302) and EDC 460
Co-requisites: EDD 424

Directed teaching consists of a teaching internship in a selected classroom for a full term under the direction of an experienced
teacher. Includes a brief period of observation followed by several weeks of responsible teaching including the writing, implementing, and evaluation of lesson plans using University-approved practices. Official admission and good standing in the Coll of Ed, Health, &Human Ser certification program are required. Completion of methods courses in the major and minor and passing appropriate MTTC tests required. Students cannot receive credit for both EDD 421 and EDD 301.

**EDD 424  Sem: Teaching Secondary Grds**
1.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate
Must be enrolled in one of the following Colleges:
- Coll of Ed, Health, &Human Ser
- Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
- Senior
- Undergrad Certification only
- Post-baccalaureate Cert only
Co-requisites: EDD 421

This course draws upon the resources found in the directed teaching environment. Students will consider problems and issues in four broad areas: students in the school, the teacher's professional responsibilities, curriculum understandings, and administrative/organizational problems. Open only to students enrolled in EDD 421.

**EDD 427  Workshops: Art in Elem School**
2.000 Credits
Must be enrolled in one of the following classes:
- Junior
- Graduate
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

A course which presents the rationale, trends, and principles of art education for elementary teachers. Teachers will have ample opportunities to experiment with various art media such as printmaking, puppetry, paints, and clay. Different strategies that focus on the creative growth of children will be developed.

**EDD 429  Tch Cntrv Iss at Elem/Sec Lvl**
2.000 TO 3.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate
Must be enrolled in one of the following classes:
- Senior
- Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

This course is designed to provide the classroom teacher with the rationale, various approaches, and strategies and techniques to use in teaching controversial issues at the elementary and secondary levels.

**EDD 435  Dir Teaching: Elementary Sch**
6.000 TO 12.000 Credits
Must be enrolled in one of the following Colleges:
- Coll of Ed, Health, &Human Ser
- Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
- Senior
- Undergrad Certification only
- Post-baccalaureate Cert only
Co-requisites: EDD 437

Directed teaching consists of a teaching internship in a selected classroom for a full term under the direction of an experienced teacher. Includes a brief period of observation followed by several weeks of responsible teaching including the writing, implementing, and evaluation of lesson plans using University-approved practices. Official admission and good standing in the Coll of Ed, Health, &Human Ser certification program are required. Completion of methods courses in the major and minor and passing appropriate MTTC tests required. Student may not receive credit for both EDD 435 and EDD 305.

**EDD 437  Sem: Teaching Elementary Grds**
1.000 Credits
Must be enrolled in one of the following Colleges:
- Coll of Ed, Health, &Human Ser
- Coll of Arts, Sciences&Letters
Must be enrolled in one of the following classes:
- Senior
- Undergrad Certification only
- Post-baccalaureate Cert only
Co-requisites: EDD 435

This course draws upon the resources found in the directed teaching environment. Students will consider problems and issues in four broad areas: students in the school, the teacher's professional responsibilities, curriculum understandings, and administrative/organizational problems. Open only to students enrolled in EDD 435.

**EDD 440  Teach English in Second Grds**
2.000 TO 3.000 Credits
Must be enrolled in one of the following classes:
- Undergrad Certification only
- Senior
- Junior
- Post-baccalaureate Cert only
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
Co-requisites: EDD 441

A course which presents the rationale, trends, and principles of English education. Trends, materials, and strategies are presented. A study of outstanding problems in the teaching of English composition, literature, grammar, and language are discussed. Official admission to and good standing in teacher certification program are required. EDD 441 required concurrently for undergraduate only.

**EDD 441  Practicum: English Second Grd**
1.000 Credits
Must be enrolled in one of the following classes:
- Undergrad Certification only
- Post-baccalaureate Cert only
- Senior
- Graduate
- Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
Co-requisites: EDD 440

Investigates the general and specific goals and objectives of English education. Trends, materials, and strategies are presented. A study of outstanding problems in the teaching of English composition, literature, grammar, and language are discussed. Official admission to and good standing in teacher certification program are required. EDD 441 required concurrently for undergraduate only.
A supervised field experience related to the study of English in the secondary grades involving a minimum of 45 clock hours of observation and work spread over a semester in a school setting. Official admission to and good standing in teacher certification are required. For graduate credit elect EDD 502.

EDD 442  Differentiating Inst K-12 Clrm  
2.000 TO 3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
May not be enrolled in one of the following Classes:  
Undergrad Certification only  
Senior  
Junior  
Post-baccalaureate Cert only  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  

Individualized instruction combined with the latest information on the brain and our understanding of multiple intelligences leads us to a new method of meeting the needs of students called differentiating instruction. This course will look at the concept of differentiating instruction in-depth. (OC).

EDD 443  Tchg Writ at the Secondary Lvl  
2.000 TO 3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Undergrad Certification only  
Junior  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  

This course is designed to help the classroom teacher promote functional and creative writing among students at the secondary school level. Attention will be given to both theory and research with emphasis on the development of instructional strategies, teaching materials and practical resources. (OC)

EDD 445  New Mthds, Strat/Mat Soc Stud  
2.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:  
Senior  
Junior  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  

Examines new developments in methodology in relation to learning theory. Investigates systems for evaluating curricular materials. Explores experimental programs, new courses of study, multimedia approaches and current research in the social studies. (OC).

EDD 446  Intervention Strat EC Spec Ed  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Undergrad Certification only  
Post-baccalaureate Cert only  
Prerequisites: EDC 414 and (EDC 340 or EDC 240) and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  

Strategies and methods which early educators can use when planning and implementing interventions for infants, toddlers and young children with disabilities and their families. Emphasis will be on addressing family identified priorities and the goals and objectives stated on the Individual Family Service Plan (IFSP) or Individual Educational Plan (IEP) using activity-based intervention, adapting materials, modifying environments and using assistive technology. (W, YR).

EDD 447  Tchg English as Second Lang  
3.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Undergrad Certification only  
Junior  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  
Co-requisites: EDD 448  

This course examines current methodologies and theories for English as a second language learning and instruction. Emphasis will be placed on a standards-based curriculum for English language learners. The use of communicative activities and strategies for developing English language skills in the elementary grades will be emphasized. Official admission to and good standing in a teacher certification program are required.

EDD 448  Pract: Tchng Engl Secnd Lang  
1.000 Credits  
Must be enrolled in one of the following classes:  
Senior  
Undergrad Certification only  
Junior  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  
Co-requisites: EDD 447  

This course examines current methodologies and theories for English as a second language learning and instruction. Emphasis will be placed on a standards-based curriculum for English language learners. The use of communicative activities and strategies for developing English language skills in the elementary grades will be emphasized. Official admission to and good standing in teacher certification program are required. TB clearance, physician's statement of good health, criminal background clearance, and bloodborne pathogens/infectious diseases training are required. (F).

EDD 450  Teach Math in Second Grades  
3.000 Credits  
Must be enrolled in one of the following classes:  
Undergrad Certification only  
Senior  
Junior  
Post-baccalaureate Cert only  
Prerequisites: MATH 331 and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  

This course examines current methodologies and theories for teaching mathematics in the secondary grades. Prerequisites include a strong background in mathematics and an understanding of secondary level mathematics. Emphasis is placed on the development of instructional strategies, teaching materials and practical resources. (OC)
Co-requisites: EDD 451

This course discusses: 1) the more important parts of recent pedagogical literature, 2) new instructional materials, methods, and curricular trends, and 3) procedures useful in the construction of new units and in the improvement of curricular units. Official admission to and good standing in a teacher certification program are required. EDD 451 required concurrently for undergraduates only. For graduate credit elect EDD 565.

EDD 451 Practicum: Math Second School
1.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Post-baccalaureate Cert only
Senior
Graduate
Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
Co-requisites: EDD 450

A required supervised field experience related to the teaching of mathematics in grades 7-12. Involves 45 clock hours of work and observation in a classroom setting. The practicum includes the construction of classroom activities and lesson plans designed to strengthen students' skills in communication, problem solving, making connections, and in the use of technology. Official admission to and good standing in teacher certification program are required. TB clearance and physician’s statement of good health required. For graduate credit, elect EDD 566.

EDD 452 Methods of Teaching Math K-8
3.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: MATH 387 and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

The course relates to the teaching of the mathematics curriculum in the elementary and middle school. The emphasis is on the development of teaching techniques that promote problem solving, reasoning, connections, communication, and concept and algorithmic development. Cooperative groups, manipulative, technology, and alternative assessment will be explored as tools for meeting the special needs of every child in grades K-8. Required of all preservice elementary teachers. Official admission to and good standing in teacher certification program required. The course includes a field experience in an assigned school setting.

EDD 454 Wrkshp: Newspaper in Education
2.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

A course designed to familiarize elementary and secondary teachers with the use of newspapers as a classroom resource. Workshop participants will use the daily newspaper and other resource materials to develop activities appropriate for meeting their own professional needs. Emphasis will be on the enhancement of academic skills, practical life skills and creative expression. (OC)

EDD 463 Tchng Gifted Stdtnt Reglr Clssr
2.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

This course introduces classroom teachers to the education of gifted and talented students in the regular classroom. It is designed to help teachers understand the social, emotional, and intellectual needs of gifted students and to show then ways of effectively addressing these needs along with those of the other students present. It will offer specific proposals for structuring the learning environment as well as for selecting appropriate levels and types of subject matter. (OC).

EDD 466 Tchng Coll Sci: Clssrm Dynamics
3.000 Credits
Prerequisites: (NSCI 390 or EDD 390) and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

A seminar analyzing current methods of college science teaching. Students will be paired with a senior faculty mentor and participate in the planning and teaching of introductory courses. Recommended for advanced undergraduates planning to attend graduate school and/or those interested in teaching. Written permission of instructor required. (OC).

EDD 467 Practicum in Reading Instruct
1.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: EDD 468 and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

A required supervised field experience related to the teaching of reading in the elementary and/or K-8. Involves a minimum of 45 clock hours of work and observation in a supervised classroom setting. Techniques learned in EDD 468 and EDD 471 will be applied to reading and language arts instruction. Official admission to and good standing in teacher certification program required. To attend graduate school and/or those interested in teaching. Written permission of instructor required. (OC).

EDD 468 Teach Read/Lang Arts- Elem Grd
3.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Acquaints the student with theory, methods, materials, and research related to the teaching of reading and other communications skills in the elementary and/or K-8. Includes classroom activities designed to strengthen skills in reading comprehension, word recognition, word attack, and the related language arts. Official admission to and good standing in the Coll of Ed, Health, &Human Ser certification program are required.

EDD 469  Reading in the Content Areas  
3.000 Credits  
Must be enrolled in one of the following classes:  
Undergrad Certification only  
Senior  
Junior  
Post-baccalaureate Cert only  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

Emphasis on developmental and remedial reading activities at the middle grades and the secondary level: diagnosis, testing, and materials; reading in the content subjects; study habits; independent reading activity; exemplary programs. Some attention will be given to related problems in the teaching of written composition. Official admission to and good standing in the Coll of Ed, Health, &Human Ser certification program are required. For graduate credit, elect EDD 569.

EDD 471  Reading Instar: Models and Meth  
3.000 Credits  
Must be enrolled in one of the following classes:  
Undergrad Certification only  
Senior  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDD 468 and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  
EDD 468  
Co-requisite: EDD 467

Various approaches to reading instruction are required. The teaching of reading/study skills in content areas and an introduction to different forms of testing will be addressed. Students will be required to complete a reading tutorial in meeting the needs of an elementary student. Not open to students who have taken EDD 472, EDD 532, or EDD 570. Official admission to and good standing in SOE certification program are required.

EDD 474  Environmental Education  
2.000 TO 3.000 Credits  
Must be enrolled in one of the following classes:  
Junior  
Graduate  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  
An analysis of environmental education at both the elementary and secondary school level particularly stressing the environment as a teaching resource. Community resources as they relate to environmental education also are investigated.

EDD 480  Teach of Sci in the Second Grd  
2.000 TO 3.000 Credits  
Must be enrolled in one of the following classes:  
Junior  
Graduate  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  
Co-requisite: EDD 481

A survey of the place of science in the secondary school curriculum, analysis and evaluation of objectives, and a consideration of modern practices in teaching science. Official admission to and good standing in teacher certification program are required.

EDD 481  Practicum in Science:Secnd Grd  
1.000 Credits  
Must be enrolled in one of the following classes:  
Junior  
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)  
Co-requisite: EDD 480

A supervised field experience related to the study of science in the secondary grades involving a minimum of 45 clock hours of observation and work spread over a semester in a school setting. Official admission to and good standing in teacher certification program are required.

EDD 482  Teach of Sic in Second Grd II  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Coll of Arts, Sciences&Letters  
Must be enrolled in one of the following classes:  
Undergrad Certification only  
Senior  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDD 480 and EDD 481

This course builds upon the concepts and skills developed in EDD 480 as students learn to become effective, reflective science teachers. Students will learn multiple strategies for effective lesson planning, teaching, and assessment in science. Science, technology, engineering and mathematics (STEM) and integration of reading/writing strategies will be emphasized throughout the course. Students cannot receive credit for both EDD 482 and EDD 582. Students seeking graduate credit should enroll in EDD 582.

EDD 483  Wkshp:Sci Teach Elem/Midd Schl  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following classes:
Senior
Junior

Deals with existing and innovative science materials. Offered at various times emphasizing one or more areas from elementary and middle level science. Centers on a laboratory approach. May be elected twice for a total of six credits. (OC).

EDD 485 Teach Science in the Elem Grd
2.000 TO 3.000 Credits
Must be enrolled in one of the following classes:
   Senior
   Junior
   Post-baccalaureate Cert only
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

Explores the objectives, methods, and instructional emphasis of elementary school science. Stresses concept development in several areas of elementary science. Provides opportunity for preparation of materials for classroom use. Official admission to and good standing in teacher certification program are required. For graduate credit, elect EDD 585.

EDD 486 Environmental Interpretation
2.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
   Junior
   Graduate

Course deals with the interpretation of the environment, its characteristics, and its presentation to school groups as well as to the general public. Intended to acquaint students with a variety of skills and techniques necessary for interpreting the environment to others. Extensive use is made of the UM-D Environmental Study Area.

EDD 489 Practicum in Soc Stud:Sec Sch
1.000 Credits
Must be enrolled in one of the following classes:
   Junior
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
Co-requisites: EDD 490

A supervised field experience in a selected middle or high school social studies classroom. The course requires a minimum of 45 hours of observation of an experienced teacher as well as the writing, implementation, and assessment of one or more lessons. Official admissions to and good standing in the teacher certification program in required.

EDD 490 Tech of the Soc Stud in Sec Sch
2.000 TO 3.000 Credits
Must be enrolled in one of the following classes:
   Junior
   Graduate
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
Co-requisites: EDD 489

This course examines theoretical and practical approaches to teaching social studies at the secondary level. Students explore, develop, and evaluate instructional methods. In light of professional standards, they consider diverse strategies for teaching and assessing middle and high school students.

EDD 491 Soc Std Elem Grades Practicum
1.000 Credits
Must be enrolled in one of the following Colleges:
   Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
   Post-baccalaureate NCFD
   Senior
   Junior
Prerequisites: EXPS 282 and EXPS 283 and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (COMP 106 or COMP 220 or COMP 270 or COMP 280 or CPAS 40)
Co-requisites: EDD 495

A supervised field experience related to the methods and strategies associated with the teaching of social studies in grades K-5. This experience requires 45 clock hours of observation and participation spread over one semester.

EDD 493 Simulations and Gaming
1.000 TO 3.000 Credits
Must be enrolled in one of the following classes:
   Undergrad Certification only
   Senior
   Junior
   Post-baccalaureate Cert only
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)
Co-requisites: EDD 490

This course focuses on simulation and gaming as approaches to learning which are fundamentally different from methods traditionally used in education, industry, business, and psychology. Students will have the opportunity to examine many different types of simulations and games and to participate in selected ones. They will also be able to design one for use in their own area of interest.

EDD 495 Social Studies in the Elem Grd
2.000 TO 3.000 Credits
Must be enrolled in one of the following classes:
   Undergrad Certification only
   Senior
   Junior
   Post-baccalaureate Cert only
Prerequisites: PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

Examination and analysis of various programs and materials currently available for teaching social studies at the elementary level. Critical investigation of new developments and trends. Opportunity is provided to experiment with various techniques and to evaluate their effectiveness. Official admission to and good standing in teacher certification program are required.

EDD 496 Second Lang Tchng: Sec Level
3.000 Credits
Must be enrolled in one of the following classes:
   Junior
Prerequisites: (FREN 301 or GER 301 or SPAN 301) and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 220)

Co-requisites: EDD 497

An examination of current methodologies and techniques for instruction in foreign languages in grades 7-12. Emphasis will be placed on a standards-based curriculum with special attention given to the creation of learning scenarios. The use of communicative activities and the assessment of language skill areas will also be emphasized. Official admission to and good standing in teacher certification program are required.

EDD 497 Second Lang Tchg: Sec Level
1.000 Credits

Must be enrolled in one of the following classes:
- Junior
- Graduate

Prerequisites: (FREN 301 or GER 301 or SPAN 301) and PIII 1 and MGPA 2.75 and MIBM P and MIBR P and MIBW P and (CPAS 40 or COMP 106 or COMP 220 or COMP 280 or COMP 270)

Co-requisites: EDD 496

A required supervised field experience related to the teaching of a foreign language in grades 7-12. Involves a minimum of 45 clock hours of work and observation spread over one semester in a supervised classroom setting. Methods and techniques learned in EDD 496 will be used to increase the second language proficiency of learners in grades 7-12. Official admission to and good standing in teacher certification program are required. TB clearance, physician's statement of good health, criminal background clearance, and bloodborne pathogens/infectious diseases training are required.

EDD 498 Writing Meth: Formal&Informal
3.000 Credits

Must be enrolled in one of the following classes:
- Junior
- Graduate

This course is designed for those wishing to establish or improve creative writing programs in their elementary school classrooms. Theoretical models will be discussed. Strategies and materials that facilitate the writing of prose and poetry will be emphasized.

EDF 270 Physical Activity and Health
2.000 TO 3.000 Credits

Discussion of topics related to attaining a healthy lifestyle including nutrition, stress management techniques, physical training programs, cardiovascular disease, risk factors and other health-related topics.

EDF 450 Hlth, Nutr, & PE/Clsrm Tchrs
2.000 Credits

Must be enrolled in one of the following classes:
- Undergrad Certification only
- Sophomore
- Senior
- Junior
- Post-baccalaureate Cert only

Instruction and participation in health, nutrition and physical education concepts and principles as they relate to elementary school curriculum. The six-dimensional model of wellness will be applied to meet legislative goals and objectives for the various grade levels. Required for elementary education majors.

EDF 455 Principles of Coaching
2.000 Credits

Must be enrolled in one of the following classes:
- Undergrad Certification only
- Senior
- Junior
- Post-baccalaureate Cert only

Instruction in the basic principles and psychology of coaching all age groups, skill levels and genders. Emphasis will be placed on many factors which relate to success in athletic/sports, the qualities and qualifications of coaches, and the administration of programs and organized practices. For graduate credit, elect EDF 555. (OC).

EDK 380 Undergraduate Reading Research
1.000 TO 2.000 Credits

Permits qualified students to pursue a program of reading under the direction of a staff member selected by the student. The faculty member must agree to serve prior to the course election. May be elected twice for a total of two hours credit.

EDK 480 Independent Action Research
1.000 TO 4.000 Credits

Requires the student to initiate and pursue to completion an informal field-based research study under faculty supervision. The faculty member must agree to supervise prior to course election. May be elected twice for a total of two hours credit.

EDK 490 Education Internship
2.000 TO 10.000 Credits

This internship provides the student with opportunity for supervised, non-classroom experience in a school, college, or other educational setting. Between eight and forty clock hours of unpaid work per week, in conjunction with an arranged seminar, are required. The course may be elected twice for a total of four to ten semester credit hours.

EDM 405 ESL Strategies for the Classrm
2.000 Credits

Must be enrolled in one of the following classes:
- Junior

This course examines a variety of instructional approaches to teaching English as a Second Language (ESL) which are being used throughout the United States. These approaches will be discussed in light of underlying language learning theories. Instructional materials representing various approaches to teaching ESL will be examined. Students will also have the opportunity to construct instructional material for use in teaching ESL.

EDN 227 Inclusion:Multisen/Direct Inst
2.000 TO 3.000 Credits

Must be enrolled in one of the following classes:
- Undergraduate NCFD
- Sophomore
Course addresses developing, implementing, and evaluating teaching strategies and materials that incorporate principles of direct instruction and multi-sensory activities that promote inclusion of students with special needs in general education settings, increase all students' academic achievement, and improve social interaction among students from a wide variety of social, economic, and cultural backgrounds. (F,W,S).

**EDN 401 Strategies for LD**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Post-baccalaureate NCFD  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDC 401  

Content includes strategies for teaching K-12 students with learning disabilities in special and regular education classes. Course addresses diagnostic-prescriptive teaching, direct instruction, and specific strategies and materials addressing each academic area. The Individualized Education Program (IEP), development of goals and objectives, linking assessment with instruction, inclusion, and generality of behavior change will also be included.

**EDN 402 Socio-vocational Transitions**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Post-baccalaureate NCFD  
Junior  
Post-baccalaureate Cert only  

This course includes strategies that teach age-appropriate social skills to students with disabilities in a variety of social settings found in the school, home and community. This course will also focus on issues relevant to vocational and community transitions for students with disabilities. As opposed to rote learning of material the course intends to provide students with a conceptual understanding of issues related to social and vocational transitions.

**EDN 403 Assessment of the Learner**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Post-baccalaureate NCFD  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDC 401  
Co-requisites: EDN 404  

Formal and informal assessment strategies used in the identification and service of students with handicaps are described. Technical and operational aspects of standardized testing, curriculum based assessment, and informal strategies are described.

**EDN 404 Assessment Practicum**  
1.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Post-baccalaureate NCFD  
Junior  
Post-baccalaureate Cert only  
Prerequisites: EDC 401  
Co-requisites: EDN 403  

Clinical experiences with formal and informal assessment strategies currently used by special educators to identify and program for students with handicaps. Activities include administration, scoring and interpretation of norm- and criterion-referenced tests, Curriculum Based Assessments and informal assessment strategies. Deriving goals, objectives, activities and strategies from assessment data are also included. Must be taken with EDN 403 for the LD endorsement.

**EDN 406 Collaboration in the Classroom**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
Must be enrolled in one of the following classes:  
Senior  
Post-baccalaureate NCFD  
Junior  
Post-baccalaureate Cert only  

Techniques for enhancing collaboration between special and regular classroom teachers of mainstreamed exceptional and low-achieving learners at all levels. Included are essential skills for managing and monitoring the learning process and maintaining collaborative partnerships. As opposed to rote learning of material, the course will provide students with a conceptual and practical understanding of issues relevant to collaboration.

**EDN 408 LD Directed Teaching Seminar**  
1.000 Credits  
Must be enrolled in one of the following Major fields of study:  
Special Education  
Must be enrolled in one of the following classes:  
Senior  
Prerequisites: EDC 401 and EDN 401 and EDN 403 and EDN 404 and EDN 402  
Co-requisites: EDD 413 EDD 415  

Seminar will focus on the discussion, development, and evaluation of Individualized Educational Programs, Individualized Transition Plans, and Behavior Intervention Plans for students with learning disabilities at a variety of directed teaching sites. Topics will include academic and behavior assessment and strategies, curriculum, child study teaming, service delivery options and inclusion strategies. Co-requisite: EDD 415 and EDD 413. Pre-requisite: Grade of "B" or better in a C401, N401, N403, N404, and N402 General Ed. Directed Teaching.

**EDN 410 Intro to Cognitive Impair I**  
3.000 Credits  
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
  Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
  Undergrad Certification only
  Senior
  Junior
  Post-baccalaureate Cert only
Prerequisites: EDC 460
Co-requisites: EDN 411

Historical perspectives, definition, terminology, and assessment of the full spectrum of cognitive impairments are addressed. Identification of the behavioral, social, intellectual, communicative, vocational, adaptive, psychological, and educational/instructional needs of individuals with mild cognitive impairments across the lifespan.

EDN 411  Cognitive Impair Pract I
1.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following Colleges:
  Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
  Undergrad Certification only
  Senior
  Junior
  Post-baccalaureate Cert only
Prerequisites: EDC 460
Co-requisites: EDN 410

Experience in an educational setting with students with mild cognitive impairments for no less than 45 clock hours. Activities include working with the cooperating teacher on tasks such as individual instruction, data collection, informal assessment and program implementation and evaluation of IEP goals and objectives.

EDN 412  Intro to Cognitive Impair II
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following Colleges:
  Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
  Undergrad Certification only
  Senior
  Junior
  Post-baccalaureate Cert only
Prerequisites: EDC 460 and EDN 411
Co-requisites: EDN 412

This course is an extension of introduction to Cognitive Impairments I. Identification of the behavioral, social, intellectual, communicative, vocational, adaptive, psychological and educational/instructional needs of individuals with moderate and severe cognitive impairments across the lifespan.

EDN 413  Cognitive Impair Pract II
1.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following Colleges:
  Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
  Undergrad Certification only
  Senior
  Junior
  Post-baccalaureate Cert only
Prerequisites: EDC 460 and EDN 410 and EDN 411
Co-requisites: EDN 412

Experience in an educational setting with students with moderate and severe cognitive impairments for no less than 45 clock hours. Activities include working with the cooperating teacher on tasks such as individual instruction, data collection, informal assessment and program implementation and evaluation of IEP goals and objectives.

EDN 414  Assessment Cognitive Impair
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following Colleges:
  Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
  Undergrad Certification only
  Senior
  Junior
  Post-baccalaureate Cert only
Prerequisites: EDC 460 and EDN 410 and EDN 411 or EDN 412 and EDN 413
Co-requisites: EDN 415

Course discusses different theories of intelligence and intellectual development. Students learn to identify and describe different instruments used to assess the intellectual, adaptive behavior, academic, language/communication, vocational and social needs of students with mild, moderate and severe cognitive impairments.

EDN 415  Assessment Pract Cogn Impair
1.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Must be enrolled in one of the following Colleges:
  Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
  Undergrad Certification only
  Senior
  Junior
  Post-baccalaureate Cert only
Prerequisites: EDC 460 and EDN 410 and EDN 411 and EDN 412 and EDN 413
Co-requisites: EDN 414

Clinical experience with formal and informal assessment strategies currently used by special educators to identify needs and develop programming for students with mild, moderate and severe cognitive impairments. Activities include practicing observational techniques, completing, analyzing and interpreting various formal and informal assessments, including norm referenced and criterion referenced tests, achievement tests, rating scales and checklists.

EDN 416  Strategies Cognitive Impair I
3.000 Credits
Must be enrolled in one of the following Levels:
  Undergraduate
Course content includes strategies for teaching students with mild cognitive impairments. Strategies for effective teaching and the development of instructional materials and learning environments for students with mild cognitive impairments are addressed. Functional academics, positive behavior supports, community based instructional support, self-determination, the use of instructional technology and supports, communication skills, adaptive behavior skills are covered within the context of the IEP, development of goals and objectives linking assessment with instruction, designing effective learning environments, and integrating students with mild cognitive impairments into the least restrictive environment.

EDN 417 Strategies Cognitive Impair II
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: EDC 460 and EDN 410 and EDN 411 and EDN 414 and EDN 415

Course content includes strategies for teaching students with moderate and severe cognitive impairments. Strategies for effective teaching and the development of instructional materials and learning environments for students with moderate and severe cognitive impairments are included. Functional academics, positive behavior supports, community based instructional support, self-determination, the use of instructional technology and supports, communication skills, adaptive behavior skills are covered within the context of the IEP, development of goals and objectives linking assessment with instruction, designing effective learning environments and integrating students with moderate and severe cognitive impairments into the least restrictive environment.

EDN 414 and EDN 415

Field experience with students with moderate and severe cognitive impairments in classroom settings. Experiences include the delivery of direct instruction in functional academic, community based skills, functional living skills, and communication skills. Academic and behavioral assessments leading to the development and implementation of IEPs and BIPs are included. Students will also engage in observations, small and large group instruction, curriculum development, program development and implementation and participation in the EIP process. Collaboration with other classroom teachers in general and special education settings, and other activities under the on-site supervision of a certified CI teacher and university field supervisor. Directed teaching also includes weekly seminar.

EDN 420 Intro to Emotional Impairments
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Post-baccalaureate NCFD
Junior
Post-baccalaureate Cert only
Co-requisites: EDN 421

Identification of the behavioral characteristics and instructional needs of children with emotional impairments/behavior disorders. Causes of emotional impairments and environmental influences as well as strategies for identification, assessment and interpreting such instruments will be addressed. Finally, instructional strategies for students with emotional impairments will be described and practiced through classroom activities.

EDN 421 Practicum at Psych Facility
1.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Post-baccalaureate NCFD
Junior
Experience in a clinical setting with emotionally impaired individuals, for no less than 45 clock hours. Activities include working with cooperating teacher on tasks such as individual tutoring, data collection, informal assessment, interpretation of psychological data, and program implementation and evaluation. Also included will be the development of individualized instructional strategies, classroom activities, the use of adaptive technology, interdisciplinary approaches and the development of relevant goals and objectives for emotionally impaired students.

EDN 423  Strat: Emotional Impairments
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
Senior
Post-baccalaureate NCFD
Junior
Post-baccalaureate Cert only
Prerequisites: EDN 320
Course content includes strategies for teaching students with emotional impairments, including instruction on reading and mathematics. Course also includes strategies to deal with hyperactive behavior, aggressive behavior, socially withdrawn behavior, and delinquency. Strategies for effective teaching and the development of instructional materials and learning environments for students with emotional impairments are included. The Individualized Education Program (IEP), development of goals and objectives, linking assessment with instruction, and integrating students with emotional impairments into the regular classroom will also be covered.

EDN 425  Eco-Behavioral Assessment
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
Senior
Post-baccalaureate NCFD
Junior
Post-baccalaureate Cert only
Prerequisites: EDN 320
Co-requisites: EDN 426
Formal and informal assessment strategies used in identifying and serving students with emotional impairments are described. Assessment strategies include eco-behavioral assessment, functional analyses, naturalistic observation techniques, norm-referenced and criterion-referenced tests, interviewing, achievement test, and curriculum based assessment. Technical aspects of assessment, interpretation of data, and diagnostic strategies are also addressed, as well as using adaptive technology and assessment instruments to facilitate more effective individualized instruction for students with emotional impairments. Finally, integrating assessment results from other disciplines will also be addressed.

EDN 426  Eco-Behav Assessment Pract
1.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Clinical experiences with formal and informal assessment strategies currently used by special educators to identify and program for students with emotional impairments. Activities include practicing observation techniques, and completing and analyzing eco-behavioral assessments and functional analyses. Also included are administration, scoring, and interpretation of norm-referenced and criterion-referenced tests, curriculum based assessments, achievement tests, rating scales and checklists, and informal assessment strategies. Practicum activities will also focus on using assessment results in curriculum design and instructional strategies to meet the individualized instructional needs of EI students.

EDT 210  Tech in Elementary Education
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
Must be enrolled in one of the following classes:
Undergrad Certification only
Sophomore
Senior
Junior
Post-baccalaureate Cert only
Introduces students to the application of technology in elementary education. Students experience and become familiar with advanced learning technology tools; learn to use telecommunication tools for emailing, participating in educational listserv and online discussion groups, and accessing electronic resources on the WWW; learn to use productivity tools forward processing, drawing, painting and digital editing, spreadsheet application, database management, and multimedia presentation; learn to use educational multimedia for visual thinking, creativity, and multimedia authoring, learning to practice ethical and legal use of technology resources, and explore the use of such technology tools in the elementary classroom.

EDT 211  Tech in Secondary Education
3.000 Credits
Introduces students to the application of technology in secondary education. Students experience and become familiar with advanced learning technology tools; learn to use telecommunication tools for emailing, participating in educational listserv and online discussion groups, and accessing electronic resources on the WWW; learn to use productivity tools forward processing, drawing, painting and digital editing, spreadsheet applications, database management, and multimedia presentation; learn to use educational multimedia for visual thinking, creativity, and multimedia authoring, learning to practice ethical and legal use of technology resources, and explore the use of such technology tools in the secondary classroom.

EDT 410  Teaching with Technology
2.000 Credits
Prerequisites: EDT 210 or EDT 211
Provides student teachers/interns with improved knowledge, skills, and confidence integrating advanced technology tools into the teaching and learning process in meaningful ways. Student teachers/interns design and teach multi-week units of instruction where student learning is enhanced with advanced technology tools. Student teachers/interns create electronic portfolios to present their achievement in teaching with technology demonstrating a superior level of achievement on the Proposed Standard with Related Indicators for the Achievement of Entry-Level Skills in Information Technology for all Michigan Teachers. (F,W,S).

**Exploratory Studies (EXPS)**

<table>
<thead>
<tr>
<th>EXPS 102</th>
<th>Career Planning</th>
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<tbody>
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<td>1.000 Credits</td>
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A ten-week seminar exploring strengths, values and motivations in the context of developing career planning and decision-making skills. Career interest assessment and individualized assistance is incorporated in the course. This is especially helpful to students who are deciding on their major.

<table>
<thead>
<tr>
<th>EXPS 218</th>
<th>Topics in Exploratory Studies</th>
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</thead>
<tbody>
<tr>
<td>1.000 TO 3.000 Credits</td>
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An examination, at the freshman and sophomore level, in the selected areas of general study. The title as listed in the Schedule of Classes may change according to content. Course may be repeated for credit when specific topics differ.

<table>
<thead>
<tr>
<th>EXPS 220</th>
<th>Science in the Elem School</th>
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<td>2.000 TO 3.000 Credits</td>
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This course is designed for people intending to become elementary school teachers and who have had little or no previous experience in science. The course utilizes a laboratory approach to the study of the concepts, processes, and value of elementary and middle school science.

<table>
<thead>
<tr>
<th>EXPS 250</th>
<th>Elem Ed Vis &amp; Perf Arts</th>
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<tr>
<td>3.000 Credits</td>
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Must be enrolled in one of the following Levels: Undergraduate
Must be enrolled in one of the following Colleges: Coll of Ed, Health, &Human Ser

This course will teach the elementary education student how to incorporate the various visual and performing arts into everyday elementary education curricula. The course will cover the fundamental and formal elements, the major periods, styles and philosophies, as well as the functions and processes of the visual and performing arts, and how to effectively employ these creative processes through collaboration, communication, cooperation and interaction in the elementary classroom.

<table>
<thead>
<tr>
<th>EXPS 270</th>
<th>Inclusion &amp; Cultural Immersion</th>
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<td>1.000 Credits</td>
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</table>

Must be enrolled in one of the following classes: Senior
Sophomore
Freshman
Junior

The seminar is modeled after New Detroits Multicultural Leadership Series. The format offers a highly innovative approach to building competences to address (ethnic, racial, gender, and sexual orientation) topics relevant to the metropolitan Detroit region. Students attend off-campus sessions where they spend the day immersed in that culture. Each session offers an in-depth look at (but not limited to) the history, culture, and socioeconomic issues that are germane but also transcend regional barriers. Goals of the course: 1) Bridge communication gaps; promote better understanding and appreciation among all people. 2) Develop a greater understanding of the distinctive and subtle differences within our community. 3) Explore various tools to enhance communication and collaborations geared towards closing our regional divide.

**EXPS 282** History & Civics Elem Schools
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate

A survey of Michigan and United States history and government through Reconstruction. U.S. historical and political topics taught in grades K-8 are explored. Students also examine families, schools, and local communities.

**EXPS 283** Geography & Econ Elem Schools
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate

A survey of the geography and economics taught in grades K-6. Particular attention will be paid to the geography of Michigan and the Great Lakes region. Market and other types of economics will be examined in the light of core economic principles. (F,W,S)

**EXPS 360** Effective Comm with Eng Lng Lrn
1.000 Credits
Must be enrolled in one of the following Levels: Undergraduate

This course provides students with a structured experience with an international student in the University of Michigan-Dearborn's English Language Proficiency (ELP) Program. Students are paired with an ELP student to meet on a weekly basis to provide opportunities to engage in conversation appropriate for academic settings. In this course students will have the opportunity to develop their understandings of the complexity of aural/oral language communication for English language learners.

**EXPS 407** Inquiry-based Math and Science
3.000 Credits
Must be enrolled in one of the following Colleges: Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following Fields of Study: Early Childhood
General Studies
Must be enrolled in one of the following classes: Senior
Sophomore
Junior
Post-baccalaureate Cert only
Prerequisites: EXPS 220 and MATH 385

This inquiry-based laboratory course intends to support the learning of early childhood educators (birth to grade 2) in foundations of science and mathematics. The course integrates concepts and processes that arise in both disciplines, such as classification; units and measurements; shapes and structures and their properties; patterns; problem solving; representation;
cause and effect; use of evidence (three credits). Required for Early Childhood Comprehensive Major. Elective for Elementary Education Certification Students. Elective for Children and Families Students. Students cannot receive credit for both EXPS 407 and 507. The required lab fee is to cover course materials.

EXPS 410 Multicult in School and Soc
3.000 Credits
Examines ways to address the needs of diverse student populations. Issues of race, ethnicity, class, gender, and language are explored. Historic and ongoing issues of equity, particularly in school settings, are considered. The focus is on providing an education of high quality to all students.

EXPS 420 Science Capstone
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Must be enrolled in one of the following Colleges: Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes: Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Prerequisites: NSCI 231 and NSCI 232 and NSCI 233 and EDD 485 *
A capstone course for pre-service elementary teachers with a laboratory component designed to assist students in achieving deep understanding of a broad scientific concept and a discussion component designed to introduce and provide practice in classroom research. Students will use the classroom research to prove misconceptions about the scientific concept explored in the laboratory.

EXPS 443 Family/School/Community Collab
2.000 Credits
Must be enrolled in one of the following classes: Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
Characteristics, roles, and functions of contemporary families are described. Various communication and training strategies designed to promote collaboration and teamwork within and between the school staff, the families, and community are described and practiced through discussion, problem-solving activities, and role playing. Family effectiveness assessment instruments and strategies are also described and practiced.

EXPS 460 Capstone: Trnds & Iss Literacy
3.000 Credits
Must be enrolled in one of the following Colleges: Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes: Undergrad Certification only
Senior
Post-baccalaureate Cert only
Prerequisites: EDD 468 and EDD 419 and EDD 471 and EDD 467 and EDD 447 and EDD 448
This course is for pre-service teachers in the elementary certification program majoring in reading. In this course students will explore topical issues relevant to the teaching of literacy in preparation for becoming participating members in the professional community of literacy teachers.

EXPS 493 Simulation and Gaming
1.000 TO 3.000 Credits
Must be enrolled in one of the following classes: Undergrad Certification only
Senior
Junior
Post-baccalaureate Cert only
This course focuses on simulation and gaming as approaches to learning which are fundamentally different from methods traditionally used in education, industry, business, and psychology. Students will have the opportunity to examine many different types of simulations and games and to participate in selected ones. They will also be able to design one to use in their own area of interest.

EXPS 498 Exploring Writing/Chld&Yng Ad
3.000 Credits
May not be enrolled in one of the following Classes: Graduate
Sophomore
Freshman
This course provides a theoretical foundation for writing instruction of children/adolescents in grades K-8. Emphasis is placed on modeling, instructional strategies, and assessment for supporting student writers that pre-service and in-service teachers can use to facilitate students development of written language across various genres. TB clearance, criminal background check, and bloodborne pathogens/infectious diseases training required.

EXPS 499 Individ Res in Lit in Educ
1.000 TO 3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Must be enrolled in one of the following classes: Senior
Undergrad Certification only
Junior
Requires the student to initiate and carry to completion a literature in education-based research project under the supervision of a faculty member. May be elected more than once for a total of not more than 3 credits as approved by advisor. Written permission of instructor. (F,W,S).

Library Science (LIBR)

COURSE OFFERINGS

LIBR 465 Literature for Children
Must be enrolled in one of the following classes: Undergrad Certification only
Sophomore
Senior
Junior
Post-baccalaureate Cert only
The evaluation of books for children aged three to twelve. Fiction, folklore, poetry, illustration, and informational books are considered with emphasis on the development of standards for selecting materials with reference to the interests, needs, and
abilities of children and the enrichment of the school curriculum. Designed for librarians, supervisors, and teachers in the elementary school.

**LIBR 470 Literature for Young People** 3.000 Credits
Must be enrolled in one of the following classes:
Undergrad Certification only
Sophomore
Senior
Junior
Post-baccalaureate Cert only

Surveys and develops criteria for appropriate literature for young people in junior high school. Fiction, non-fiction, folklore, poetry and fantasy are considered with reference to the interests, needs and abilities of adolescents. Designed for librarians, supervisors, and teachers in the secondary school.

**LIBR 475 Issues Lit Child/Yng People** 2.000 TO 3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Ed, Health, &Human Ser
Must be enrolled in one of the following classes:
Senior
Junior

This course is designed to heighten the awareness and sensitivity of teachers to the treatment of issues in modern and traditional literature for elementary and middle school children. Among these issues will be justice, ethics, abuse, conformity, aging, death, sibling problems, alienation, friendship, prejudice, gender, and other areas of concern. Techniques and activities for fostering discourse and open inquiry in the classroom, relative to the literature, will be explored and presented. (OC).

### Military Science (MILS)

#### COURSE OFFERINGS

**MILS 101 Foundations of Officership** 1.000 Credits

An overview of the United States Army and its organization, customs and traditions, ranking structure, and the roles of the officer and noncommissioned officer. Students will conduct hands-on training in land navigation, rappelling, marksmanship, drill and ceremony, and small unit tactics.

**MILS 102 Basic Leadership** 1.000 Credits

This course expands upon the fundamentals introduced in the previous term by focusing on communications, leadership and problem solving. It is designed to build on the experience of the first term and further broaden the introduction to the Army as well as to the leadership skills and "life skills" needed by an Army officer. Learning objectives focus on the following: introduction to communication principles of military briefings and effective writing; the Army Problem Solving Process; goal setting; and communication skills as they relate to listening, speaking and the counseling process; as well as several lessons that provide an overview of Army life.

**MILS 201 MILS: Leadership & Teamwork** 2.000 Credits

This course takes the unique approach of placing students in a wide variety of group exercises designed to emphasize various professional leadership competencies and insights. These events are held both inside the classroom and in outdoor settings. The instructor acts as a facilitator, helps guide student processing, or after action reviews of the events to derive the leadership group dynamics, and problem solving lessons that the exercise offers. In addition to military skills, practical 'life skills' are emphasized. The lessons are designed to maximize student participation, inspire intellectual curiosity, stimulate self-study and encourage cadets to interact.

**MILS 202 Leadership and Teamwork** 2.000 Credits

This course places students in an experiential learning environment which provides participants the opportunity to 'experience' their learning, rather than simply being told what they are to learn. Students participate in a wide variety of group exercises designed to emphasize various professional leadership competencies and insights. These events, which range from physically challenging to mentally stimulating, are held both inside the classroom and in outdoor settings. The instructor acts as a facilitator, helps guide student processing through after action reviews of the events to facilitate student understanding of leadership principles, group dynamics, and problem solving methods. In addition to military skills, practical 'life skills' are emphasized. Lessons are designed to maximize student participation, inspire intellectual curiosity and introspection, as well as group interaction.

**MILS 301 Leading Small Orgs 1** 2.000 Credits
Must be enrolled in one of the following classes:
Senior
Junior

Leading Small Organizations is a continuation to the study of military organizational leadership focusing on leadership development and interpersonal and group dynamics. This lecture-discussion course will provide insights into methods of visualizing, planning and leading organizations to achieve set goals. Students will be given opportunities to progress through a series of projects in which you will lead small groups (10-30 people). These projects are designed to allow students to develop individual decision-making and management skills as well as give them a sensitivity to organizational life. Students receive personal assessments and encouragement in situations of increasing complexity. The vehicles used to achieve these educational objectives are a study of formal planning and decision-making models set in the framework of military organization and doctrine.

**MILS 302 Leading Small Orgs 2** 2.000 Credits
Must be enrolled in one of the following Classes:
Senior
Junior

MSL 302 uses increasingly intense situational applying team leadership challenges to build cadet awareness and skills in leading tactical operations at the small unit level. Cadets review
aspects of full spectrum operations. They also conduct military briefings and develop proficiency in the operation orders process. The focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in the contemporary operating environment (COE). MSL 302 cadets are evaluated on what they know and do as leaders as they prepare to attend the ROTC summer Leader Development Assessment Course (LDAC).

**Professional Education (PDED) COURSE OFFERINGS**

**PDED 318 Topics in Education**
1.000 TO 3.000 Credits
- Must be enrolled in one of the following classes:
  - Junior
  - Graduate

An examination, at the undergraduate level, of selected problems, practices or issues in education. The title as listed in the Schedule of Classes may change according to content. Course may be repeated for credit when specific topics differ.

**PDED 405 Sp Ed Legisltn and Litigation**
3.000 Credits
- Must be enrolled in one of the following Colleges:
  - Coll of Ed, Health, &Human Ser
- Must be enrolled in one of the following classes:
  - Senior
  - Post-baccalaureate NCFD
  - Junior
  - Post-baccalaureate Cert only

Content traces the historical development of special education through landmark legislation and litigation, parent advocacy, and national economic and social needs. The provisions of federal and state special education mandates, judicial interpretations, and Michigan state guidelines regulating the delivery of educational and vocational services to persons with handicaps will also be addressed.

**PDED 415 Museum Resources for Teaching**
3.000 Credits
- Must be enrolled in one of the following Colleges:
  - Coll of Ed, Health, &Human Ser
- Must be enrolled in one of the following classes:
  - Senior
  - Undergrad Certification only
  - Junior

Explores the use of museums as educational resources by elementary and secondary teachers. Various museums in the greater Detroit metropolitan area will be visited and studied. Students will review how to plan educational trips and how to use museum resources in meeting their own particular individual needs. (OC)

**PDED 416 Internship in Museum Education**
2.000 OR 3.000 Credits
- Must be enrolled in one of the following Colleges:
  - Coll of Ed, Health, &Human Ser
  - Coll of Arts, Sciences&Letters
- Must be enrolled in one of the following classes:
  - Sophomore
  - Senior

The museum education internship will prepare students with the knowledge and skills they need to plan, implement, and evaluate educational and interpretive programs in the context of museums. The educational functions of museums will be explored. The students will apply their knowledge and experiences to K-12 instruction in the core content areas.

**PDED 418 Topics in Education**
1.000 TO 3.000 Credits
- Must be enrolled in one of the following Colleges:
  - Coll of Ed, Health, &Human Ser
  - Coll of Arts, Sciences&Letters
- Must be enrolled in one of the following classes:
  - Post-baccalaureate Cert only
  - Undergraduate NCFD
  - Senior
  - Undergrad Certification only
  - Junior
  - Post-baccalaureate NCFD

This course is intended to introduce students to the characteristics and assessment of persons with ASD, as well as the best practices related to educating students with Autism Spectrum Disorders (ASD). Specifically, students will learn evidence based practices for: assessing students with ASD, creating an appropriate educational environment for students with ASD, and providing academic instruction and behavioral interventions to students with ASD in special education and general education settings. Instruction will emphasize specific assessment and teaching tools and behavior management principles and practices associated with educating K-12 student with ASD.

**PDED 425 Educator and the Law**
1.000 TO 2.000 Credits
- Must be enrolled in one of the following Colleges:
  - Coll of Ed, Health, &Human Ser
- Must be enrolled in one of the following classes:
  - Senior
  - Undergrad Certification only
  - Junior

Designed to familiarize classroom teachers with school law and its implications for educators, pupils, and parents. Consideration will be given to the legal aspects of such matters as physical threats, teacher liability, codes of conduct, discipline, and student rights. (OC)
College of Engineering and Computer Science

Administration

Tony England, PhD, Interim Dean, College of Engineering and Computer Science
Keshav S. Varde, PhD, Associate Dean, College of Engineering and Computer Science
William I. Grosky, PhD, Chair, Department of Computer and Information Science
Ben Q. Li, PhD, Chair, Department of Mechanical Engineering
Pankaj K. Mallick, PhD, Director, Interdisciplinary Programs
Ye Lu Murphy, PhD, Chair, Department of Electrical and Computer Engineering
Armen Zakarian, PhD, Chair, Department of Industrial and Manufacturing Systems Engineering
Laura Beer, Student Advisor
John Cristiano, Co-Director, Institute for Advanced Vehicle Systems; Director, Patton Center for Engineering Education and Practice
Anthony DeLaRosa, Internship Coordinator
M. Jeanne Girard, Director, Office of Extended Learning and Outreach
Eric Kirk, Facilities Manager
Jung Koral, Student Advisor
Ghassan Kridli, Co-Director, Institute for Advanced Vehicle Systems
Jennifer Makas, Student Advisor
Leigh McGrath, Business Manager
Lisa Remsing, Director of Academic Services

Professors Emeriti

Aswad, A. Adnan, PhD, Professor Emeritus of Industrial and Manufacturing Systems Engineering
Boffi, Luiz V., ScD, Professor Emeritus of Electrical and Computer Engineering
Bolling, Fredric, PhD, Professor Emeritus of Mechanical Engineering
Cairns, J. Robert, PhD, Professor Emeritus of Mechanical Engineering
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Despres, Thomas A., PhD, Professor Emeritus of Mechanical Engineering
Habib, Izzeddin S., PhD, Professor Emeritus of Mechanical Engineering
Heim, Dwight S., PhD, Professor Emeritus of Electrical Engineering
Kampfer, Roberto, PhD, Associate Professor Emeritus of Computer and Information Science
Kurajian, George M., MS, Professor Emeritus of Mechanical Engineering
Miller, Murray H., PhD, Professor Emeritus of Electrical and Computer Engineering
Mitchell, William J., MS, Assistant Professor Emeritus of Mechanical Engineering
Murtuza, Syed, PhD, Professor Emeritus of Electrical and Computer Engineering
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Sullivan, Joseph E., MS, Associate Professor Emeritus of Electrical and Computer Engineering
Trojan, Paul K., PhD, Professor Emeritus of Metallurgical Engineering
Wolf, Louis W., PhD, Associate Professor Emeritus of Mechanical Engineering

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Jung, Dohoy, PhD, University of Michigan, Associate Professor of Mechanical Engineering
Kachhal, Swatantra K., PhD, University of Minnesota, Professor of Industrial and Manufacturing Systems Engineering
Kang, Hong Tae, PhD, University of Alabama, Associate Professor of Mechanical Engineering
Kaufman, Herbert, PhD, University of Windsor, Lecturer of Electrical and Computer Engineering
Kessentini, Marouan, PhD, University of Montreal, Assistant Professor of Computer and Information Science
Kim, Sang-Hwan, PhD, North Carolina University, Assistant Professor of Industrial and Manufacturing Systems Engineering
Kim, Taehung, PhD, Texas A & M, Associate Professor of Electrical and Computer Engineering
Klungle, Roger G., DSc, George Washington University, Lecturer of Industrial and Manufacturing Systems Engineering
Engineers: The Profession

Engineers are the link between scientific knowledge and practical applications. Engineers combine various roles and functions in their job. What are engineers?

- Engineers are science-knowlegeable men and women who use mathematics, chemistry, and physics for an applied purpose.
- Engineers invent, design, or improve products that people want to buy or use.
- Engineers are business people who design, manufacture, or sell a technical product or service to customers, taking into consideration safety, cost, quality, reliability, societal impact, and ease of use.
- Engineers are planners and integrators who bring together skills and knowledge from many disciplines and fields for some technical purpose or application.
- Engineers are creative problem-solvers and doers: they make decisions and get things done in a combined science/technical/business/applied profession.
• Engineers analyze problems, develop design solutions, and pay close attention to detail.
• Engineers interact with a variety of people, including clients, scientists, other engineers, technicians, managers, and government officials.
• Engineers are interested in how and why things work and like practical challenges.
• Successful engineers are known for their analytical, imaginative, and creative skills, for using common sense, for being team players, for being able to pick up new knowledge and skills quickly, and for their commitment to continue to improve and learn.


Computer Science: The Profession

Computer and information scientists offer expertise in the effective and efficient use of computers for tackling a broad spectrum of practical challenges, usually in a team environment. Computer and information science includes the following subspecialties: operating systems, compilers, computer graphics, computer game design, computer networks and network administration, security, enterprise computing technologies, information and database systems and database administration, information retrieval, artificial intelligence and machine learning, robotics, theoretical computer science, programming languages, software engineering and web technologies. Software engineering is the area within computer science that is concerned with the theoretical and practical aspects of the detailed design, building, testing, modification, optimization, and maintenance of large, high quality, software systems for a wide range of applications across society. Software engineers analyze users’ needs and work as part of a core team to design, create, and implement high quality and cost effective new software, computer applications, and utility programs. A core team may be composed of software engineering, manufacturing, design, management, and marketing people who work together until the software product is released and implemented. Digital Forensics is the area of computer science concerned with the examination and analysis of computer hard drives, storage devices, cell phones, PDAs or any electronic device that may hold evidence that could be used in a court of law. The digital forensics analyst uncovers and preserves data for later use as legal evidence, and analyzes the data in light of a particular crime or criminal or civil investigation.

The College of Engineering and Computer Science offers undergraduate degrees in three computer science fields: Computer and Information Science, Digital Forensics, and Software Engineering.

Career Choice

What can help students to decide to pursue a career in engineering or computer science? Some of the clues are an interest in and successful completion of science, mathematics, and computer science courses; a desire and ability to investigate the “why” as well as the “how” of things; and an interest in the creative development of devices or systems that meet specific needs. Not all of these signs or interests will fit everyone, but they can be used as a guide.

The College of Engineering and Computer Science’s Student Records and Advising Office has online information about careers in engineering and computer science and a number of links to very informative external web sites at: engin.umd.umich.edu/ Nora/links.php

Individuals with interests in using science and mathematics to benefit others will find that engineering and computer science professions offer a wide variety of career and employment choices and opportunities.

Admissions counselors at UM-Dearborn and academic advisors of the College of Engineering and Computer Science are glad to talk with students about career choices or choosing the school that best suits their interest and abilities. Prospective students are welcome to contact the College of Engineering and Computer Science by phone or personal visit and to read the information on the College’s Web page: engin.umd.umich.edu.

Educational Goals and Programs

The mission of the College of Engineering and Computer Science is to be the leader in providing quality undergraduate and graduate programs in an environment integrated with engineering practice, research, and continuing professional education, in close partnership with the industrial community.

The College of Engineering and Computer Science’s (CECS) educational objective is to prepare students to take positions of leadership commensurate with their interests and abilities in a world where science, engineering, and human relations are of basic importance.

Programs of study integrate fundamental mathematical and scientific theory with experiments, advanced analysis, and design practice to produce the coherent educational preparation required of professional engineers and computer scientists.

Both the CECS academic curriculum and co-operative placements are planned to prepare students to become practicing engineers or computer scientists, administrators, or investigators. The knowledge, skills, and discipline gained from the CECS degree programs are broad and fundamental and also constitute excellent preparation for other careers, such as law and medicine.

Undergraduate Requirements

The College of Engineering and Computer Science (CECS) offers undergraduate programs leading to the Bachelor of Science in Engineering (BSE) degree in the following fields: bioengineering, computer engineering, electrical engineering, industrial and systems engineering, manufacturing engineering, and mechanical engineering. (Students in these BSE programs may also choose to earn a concurrent second degree in engineering mathematics.) The College also offers an undergraduate degree program leading to a Bachelor of Science (BS) in the following fields: Computer and Information Science (CIS), Digital Forensics, and Software Engineering. The CIS program has two concentrations: computer science and information systems. (Students in these BS programs may also choose to earn a concurrent second degree in CIS mathematics.)

The minimum credit-hour requirement for the degree programs in engineering is 125 to 128 semester credits, depending on the
specific major. Participation in the engineering and computer science Cooperative Education Program requires an additional minimum of six hours of co-op courses. The BS in Software Engineering, Digital Forensics, or in Computer and Information Science requires a minimum of 120 to 123 semester credits of course work, depending on the specific major.

The first two years can be considered pre-professional study covering foundation subjects, and the last two years are the specialized, professional phase of the degree program.

The scholastic requirements for graduation are given under “Requirements for Graduation” section of this Catalog. For the detailed requirements specified by the College of Engineering and Computer Science for each of its undergraduate programs, see the sections for each program below.

Students have the option of earning a minor in addition to their major. CECS offers a minor in Computer and Information Science. The College of Arts, Sciences, and Letters and the College of Business offer various minors of interest to CECS students. See the relevant sections of this Catalog.

The CECS Student Records and Advising (SRA) Office, 2000 Heinz Prechter Engineering Complex (HPEC), (313) 593-5510, uginfo@engin.umd.umich.edu is the primary contact for undergraduate students for academic advising and for information about all undergraduate degree programs of the College of Engineering and Computer Science.

More information about CECS and its programs is available through the College’s home page: engin.umd.umich.edu.

**Admission to the College of Engineering and Computer Science**

Admission requirements for entering as a freshman or a transfer student are described under the Admission Requirements, General Information section of this Catalog.

Admission to the College of Engineering and Computer Science (CECS) follows the traditional selective admission standards of the University of Michigan-Dearborn. Students are admitted from high schools directly to the CECS as freshmen or as transfer students from other colleges or universities.

A student admitted to the University of Michigan-Dearborn is expected to elect all courses at the UM-Dearborn. Only under exceptional circumstances is approval granted to elect a course outside the UM-Dearborn. See the On-Campus Courses rule, under Important Academic Policies.

**Admission as a Transfer Student**

The University of Michigan-Dearborn admits students as transfers who have completed course work at a community college or at another four-year school.

Transfer students can enter at or before the sophomore/junior level, and their preparatory work should have included foundation subjects in the areas of mathematics, science, and pre-engineering or computer science in order to begin their professional course work. Generally, the mathematics, science, or pre-engineering/pre-computer science programs of other engineering schools, of community colleges, and of liberal arts programs provide an appropriate preparation for admission to the College of Engineering and Computer Science.

Transfer guides for students interested in transferring into CECS from nearby colleges are available online: engin.umd.umich.edu/SRA/prospective.php

Advisors at UM-Dearborn are available to assist prospective students by recommending a specific program of courses at a two-year institution to be taken prior to transfer.

**Transfer of Credits**

An appraisal of the previous record of a student transferring to the University of Michigan-Dearborn is made at the time of admission to determine the number of credits that apply toward the degree program specified by the applicant. In general, credit will be given for courses taken at accredited institutions in which the student earned at least a C grade and provided that the courses can appropriately be applied as meeting requirements of the student’s chosen degree program. Credit is not transferable for courses in which grades less than C or equivalent was earned in another institution. Irrespective of the number of credits the student has previously earned, a student must complete at least 30 credits of upper-level course work in their major at the University of Michigan-Dearborn in order to qualify for a University of Michigan-Dearborn degree.

**CECS Student Records and Advising (SRA) Office**

The College of Engineering and Computer Science (CECS) Student Records and Advising (SRA) Office is the primary contact for undergraduate students for academic advising and for information about all undergraduate CECS programs. The SRA Office provides the following services to CECS undergraduate students:

- academic orientation of freshmen and transfer students
- academic advising of new and continuing students
- evaluation of transfer credits, admission of cross-campus transfer applicants
- coordination of registration, drops, adds, and total withdrawals
- handling of petitions and individual requests
- degree audits of students’ credits toward graduation
- placement and release of academic holds
- handling of academic (probationary) actions and petitions
- readmission of previously enrolled students
- final certification of degree completion.

The SRA Office is located in room 2000 of the Heinz Prechter Engineering Complex (HPEC) (phone: (313) 593-5510, FAX: (313) 593-9967). The Undergraduate Student Handbook, issued by SRA, is available on-line at engin.umd.umich.edu/SRA/pdf/Student_Handbook.pdf

**Important Academic Policies**

The front section of this UM-Dearborn Undergraduate Catalog and the campus’ Registration and Records web page, umd.umich.edu/policies/umd/ provide information about university policies.

Listed below are some important policies affecting College of Engineering and Computer Science students. The CECS Undergraduate Student Handbook also has important information: engin.umd.umich.edu/SRA/pdf/Student_Handbook.pdf
The English Composition Placement Exam is required of all students upon entering U/M-Dearborn.

The Mathematics Placement Exam is required of all freshmen before they register for a mathematics course. All transfer students expecting to take pre-calculus or calculus I are also required to take the mathematics placement exam.

CECS students must take and pass the mathematics course into which they place. CECS students who register for a mathematics course other than the course into which they placed will be disenrolled from that course.

The Office of Admissions and Orientation (313) 593-5100 schedules placement exams.

Prerequisite courses and co-requisite courses: A student needs to have the proper prerequisites to enroll in a course and cannot enroll in a course when one or more of its prerequisites need to be repeated because of probation. This is monitored by the College.

Grades: All courses required for CECS students must be taken for a grade. Grades count as part of a CECS student’s grade point average (GPA), except for the grades in ‘additive credit’ courses (EDF courses, or courses numbered 001 to 099).

Pass/Fail courses: CECS students cannot take required courses on an audit or Pass/Fail basis. Any course audited or taken Pass/Fail will not count towards the degree, even as a general elective. Pass/Fail or non-credit courses may be taken only for non-degree credit.

Non-Credit Courses: Students cannot use non-credit courses towards their degree. A list of non-credit courses is found in the CECS Undergraduate Student Handbook available online: engin.umd.umich.edu/SRA/pdf/Student_Handbook.pdf.

The D- Repeat Rule: Any course in which a CECS student earns the grade of D- does not carry degree credit. Any course in which a CECS student receives a D- must be repeated and must be passed with a higher grade in order for the course to count toward a CECS degree. This rule applies to all CECS students.

The On-Probation Repeat Rule: It is a CECS degree requirement that if a student’s overall cumulative GPA, CECS cumulative GPA, or both, drops below 2.0, any required courses with grades of C- or below taken during that semester must be repeated.

A student on academic probation who earns a grade of C- or below in a course that is a prerequisite course for another course, cannot elect the course without first repeating the prerequisite course. A student who elects a course without the proper prerequisites, or who needs to repeat the prerequisite because of probation, will be disenrolled from the course.

On-Campus Courses Rule: The CECS degree programs are designed to prepare professional engineers and computer scientists, to meet accreditation criteria, and to uphold the University’s exacting educational standards. To ensure the integrity of its programs, the University has determined that once a student is admitted to UM-Dearborn, permission to take courses at another institution will very rarely be granted.

Course Registration

CHANGES IN COURSE ELECTIONS: ADD, DROP, WITHDRAWAL

Please refer to the General Information section of this Catalog and the CECS Undergraduate Student Handbook available at engin.umd.umich.edu/SRA/pdf/Student_Handbook.pdf for further information on changes in course elections.

CECS has a policy of required advising for undergraduate students. CECS students meet with their assigned advisor each term prior to registering for classes for the following semester. Upon completion of 44 credit hours, students are assigned a faculty member as their advisor.

ADDITION COURSES

Courses that extend over the full term must be elected during the two-week period beginning on the opening day of classes for the term. For seven-week half terms, or other scheduled terms shorter than a normal full term, course elections must be made during the first week of classes.

Revising a course election from for-credit to audit (or vice versa), election of the Pass/Fail Option, or changes from Pass/Fail to graded, must occur within the time periods stated for “Adding New Courses.”

DROPPING COURSES

Students may drop courses that extend over the full term without academic penalty during the nine-week period beginning on the first day of classes of the term. For seven-week terms, or other scheduled terms shorter than a normal full term, this period will be four weeks. A final grade of E will be recorded for an unofficially dropped course.

In the event of extraordinary circumstances realized subsequent to the stated four- or nine-week periods, a student may petition to drop a course after the regular drop deadline. Late drop petitions, like other petitions, are handled by the CECS Student Records and Advising Office (2000 HPEC). A late drop petition will be considered only for important medical or other compelling reasons and not merely because a student is doing poorly in a course.

Students must contact an SRA advisor in person to discuss a late drop petition since supporting documentation is always required. Students continue to be registered for a course, and should continue to attend it and do all the assignments, unless and until their late drop petition is approved by the CECS Student Records and Advising Office.

TOTALLY WITHDRAWING FROM THE TERM

Total Withdrawal: Students may withdraw from all their courses for a given semester up to the last day of classes (NOT the last day of exams). CECS students who are totally withdrawing (from all classes) always need the signature of a CECS SRA advisor (Room 2000 HPEC).
Incomplete Coursework (I) or Absence from Final Examinations (X)

A CECS student whose term course work (other than the final examination) is incomplete in a minor way may, upon timely completion and approval of the I Contract Form, be granted the privilege of completing the course work within a five-week period, beginning on the first day of classes of the immediately following term. If granted this privilege, a mark of I will be recorded on the transcript.

A student who is unavoidably absent from a final examination may, by approval from the course instructor, be granted the privilege of making up the examination within a five-week period, beginning on the first day of classes of the immediately following term. If granted this privilege, a mark of X will be recorded (on the transcript).

Failure to complete the required work, or to make up the final examination, within the specified time, or the denial of this privilege for an I or an X by the instructor, will result in a grade of E for the final grade.

The I Contract form is obtainable from the CECS Records and Advising Office, 2000 HPEC. The I or X will remain on the transcript even after the official final letter grade is assigned.

In extenuating circumstances an extension beyond the stated period may be requested by means of a petition submitted to the CECS Records and Advising Office (2000 HPEC), which must also be approved by the instructor. However, such arrangements for completing the work must be made within the above mentioned five-week period.

Failure to complete the required work or examination within the specified time will result in a mark of I or X being automatically converted to a permanent IE or XE in the transcript, which will count as an E in the student’s grade point average.

Grading System

The following (4.0) grading system is used by the CECS:

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Honor Points</th>
<th>Letter Grade</th>
<th>Honor Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td>D+</td>
<td>1.4</td>
</tr>
<tr>
<td>B+</td>
<td>3.4</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>D-</td>
<td>0.7</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
<td>E</td>
<td>0.0</td>
</tr>
<tr>
<td>C+</td>
<td>2.4</td>
<td>UE</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The honor points earned in a course are calculated by multiplying the honor points assigned for the grade by the credit hours for the course; e.g., an A grade in a three credit hour course yields 12 honor points. The semester grade point average is calculated by dividing the total honor points earned in a semester by the credit hours elected in that semester. The overall cumulative grade point average is obtained in the same manner with all courses elected at UM-Dearborn included in the calculation.

If any courses were repeated in the Fall 2005 or subsequent semesters, the most recent grade will be used in computing the grade point average, and a maximum of two previous grades in the same course will be excluded from calculation of the grade point average. A given course may be taken a maximum of three times.

Courses in which a mark of S, P, Y, F, or NC is received are not included in grade point average calculations.

A CECS student with a class rank of junior or senior and who is in good scholastic standing may, with the approval of the College, elect a non-CECS course that is not a part of the degree requirements, nor a prerequisite to any required course using the Pass/Fail Option.

Selected courses may be offered by the CECS on a grading basis of awarding S for satisfactory work, E for failing work, and NC for no credit. Any course assigned an S mark or an NC mark will not count towards degree requirements, nor will an S or an NC mark enter into the computation of a student’s grade point average. Only CIS co-op courses with an assigned S mark may count toward degree requirements. A grade of E will be treated as a conventional E on all records.

Class Standing

The number of credit hours accumulated at the close of a given term determines a student’s class standing.

<table>
<thead>
<tr>
<th>Underclassmen</th>
<th>Upperclassmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>Sophomore</td>
</tr>
<tr>
<td>0 to 24</td>
<td>25 to 54</td>
</tr>
<tr>
<td>Junior</td>
<td>Senior</td>
</tr>
<tr>
<td>55 to 84</td>
<td>85 or more</td>
</tr>
</tbody>
</table>

Scholastic Standing

In order to attain a BSE or BS degree, a student must achieve a final overall average of 2.0 or higher for all University of Michigan – Dearborn courses taken while enrolled in the CECS. In addition, the student must obtain a grade point average of 2.0 or more for all elected CECS courses.

GOOD SCHOLASTIC STANDING

To be in good scholastic standing at the end of any term, a student must have an overall average of 2.0 or higher for all UM-Dearborn courses elected. Additionally, a student must have a 2.0 or above grade point average for all CECS courses elected.

GRADES LESS THAN C (2.0)

While a grade of C-, D+, or D is passing, it is not considered satisfactory scholastic performance. Any deficiency of grade points (below 2.0) in either the overall grade point average (GPA) or the CECS cumulative grade point average (CECS GPA) resulting from one or more C-, D+, D, or D- grades must be made up while enrolled in this College. C-, D+, D, or D- grades are used in computing the student’s GPA or CECS GPA or both.

A student must repeat, as early as possible, any required courses in which a C-, D+, D, or D- grade is received in a given term if either the overall GPA or CECS GPA falls below 2.0 at the end of that term. Moreover, if a student on academic probation earns a C-, D+, D, or D- grade in a prerequisite for another course,
such a course cannot be elected without first repeating the prerequisite course. A waiver of this requirement may be obtained only by means of a petition approved by the CECS.

Any course in which a student received D- must be repeated, even if the course was taken when the student’s overall cumulative GPA, and/or GPA in CECS courses, was above 2.0.

Neither credit nor grade points are allowed for a course in which a student received an E grade. Any deficiency of grade points (below 2.0 average) resulting from one or more E grades must be made up while enrolled in this College before the student is restored to good standing. A required course in which a grade of E has been assigned must be repeated on this campus during the student’s next academic term.

CONTINUED ENROLLMENT IN THE COOPERATIVE EDUCATION PROGRAM

Although students on probation are normally allowed to continue their academic enrollment, they should consult immediately with the cooperative education program coordinator to review their status in the cooperative education phase of their program. Students will certainly jeopardize their ability to participate in this program if, during any term, their grade point average falls below 2.0. In the event that a student is placed on probation, the CECS reserves the right to require that the student spend another term in class and not participate in a work assignment for that term.

UNSATISFACTORY PERFORMANCE

The records of CECS students are reviewed at the end of each term by the Academic Standing Committee. Three degrees of scholastic deficiency are used by the Committee to identify a student’s unsatisfactory performance resulting from C-, D+, D, D-, and E grades: warning, on probation, or required to withdraw.

In cases where the grade average for one term falls below 2.0 while the overall average remains above 2.0, the student normally will receive a warning letter from the Committee.

Probationary status (academic probation) is normally assigned to students who are not in good scholastic standing but whose records indicate a possibility for removal of deficiencies by continued enrollment. CECS students on academic probation are restricted to registering for no more than 13 credits per semester.

Students whose academic record is poor for two or three successive semesters are subject to being required to withdraw from the College. Students who have been required to withdraw may submit a formal written appeal to be readmitted at a later time, but must, in all cases, have had at least one semester of non-enrollment in CECS for their appeal to be accepted for consideration.

ACADEMIC STANDING APPEAL PROCEDURE

Students who wish to appeal a decision by the Academic Standing Committee requiring them to withdraw may do so by addressing a petition to the Executive Committee (the chief policy body) of the CECS. In all cases, the Executive Committee requires a one-term non-enrollment period, to allow students who have been required to withdraw time to reflect upon their situation, to consider alternatives, and to make plans. If a negative decision is rendered at this high level, the student may, under unusual circumstances, appeal the case to the Appeals Board of the UM-Dearborn.

Requirements for Graduation

In order to secure a degree of BSE or BS from the College of Engineering and Computer Science, UM-Dearborn, a student must meet the following requirements:

1. Must have been admitted to a degree program in the CECS.
2. Must satisfactorily complete the specified number of elective and required courses of the specific degree program.
3. Must attain a grade point average of C (2.0) or better for all courses completed at UM-Dearborn.
4. Must achieve a minimum grade average of C (2.0) for all CECS courses completed at UM-Dearborn.
5. Must have completed at least 30 credit hours of upper-level CECS course work at UM-Dearborn of the degree program in which enrolled.
6. Must be enrolled for credit in the CECS during the term in which the requirements for the degree are completed.
7. Must have taken the English Composition Placement Exam and passed the appropriate composition course, as indicated by the results.
8. Must have repeated all courses that needed to be repeated, in accordance with the policies stated above.
9. Must have submitted a diploma application online through UM-Dearborn Connect by the third week of the beginning of the term in which the student expects to graduate.

In order to obtain a BSE in an engineering major and a concurrent BSE degree in Engineering Mathematics, or a BS degree in CIS, digital forensics, or software engineering and a concurrent degree in CIS Mathematics, the student must complete the specified minimum credit hours of additional and separate courses in advanced mathematics from the choices listed in the Engineering Mathematics degree program or the CIS Mathematics degree program, respectively.

College of Engineering and Computer Science Academic Code of Conduct

The Academic Code of Conduct (ACC) of the College of Engineering and Computer Science is based on the premise that all students in the College will perform honestly and ethically in all graded tests, projects, and assignments. The Code of Conduct prohibits students from tampering with grades, submitting false grades, and changing academic records, as well as cheating, plagiarism, and other forms of academic dishonesty.

Sanctions for violation of the Academic Code of Conduct may include one or more of the following: a letter of reprimand, reduction in course grade, failure in the course(s), entry of action on the student’s transcript, suspension, expulsion, and recession of a degree.

CECS students are subject to the provisions of the code in all courses. Students from other academic units are also bound by the CECS Academic Code of Conduct in any engineering or CIS courses they may elect.

Students who have questions about how the Code applies in a particular CECS course should contact the course instructor. For any general questions or concerns about Academic Code of Conduct, students should contact a member of the CECS Academic Disciplinary Committee (ADC).
Familiarization with the code is the responsibility of every student enrolled in courses offered by the CECS. The Academic Code of Conduct Booklet is available from the CECS Student Records and Advising Office, 2000 HPEC, and is also online: engin.umd.umich.edu/cur_students/codeofconduct.php

PHILOSOPHY OF THE CODE

The Academic Code of Conduct is a philosophy of life based on the cardinal principle that it is dishonorable to receive credit for work that is not the result of the individual’s efforts. This is a principle of the engineering and computer science professions and is a continuing tradition of the engineering students at the University of Michigan. To be trusted as a person and to have one’s word of honor associated with each professional undertaking will increase self-respect. A student’s diploma will then not only be a certificate of tasks accomplished, it will also stand as evidence of achievement of character.

See also under Student Rights and Responsibilities in the General Information section of this Catalog.

Distribution Requirements

BACHELOR OF SCIENCE IN ENGINEERING DEGREE PROGRAMS

Basic Requirements for Students Enrolled in the CECS

Courses required of Bachelor of Science in Engineering (BSE) students entering UM-Dearborn as of Fall 2009:

English Composition ........................................................... 6 hrs
COMP 105* and 270

* English composition is required for all entering students. Students are exempt from COMP 105 if they place out of it by the UM-Dearborn Composition Placement Examination. Students placing out of COMP 105 will neither register for nor attend COMP 105. The Director of the Writing Program will send the names of these students to the Registrar’s Office. In the case of CECS students alone, three hours of credit by placement exam for COMP 105 will be recorded on their transcripts. Such credit by placement for COMP 105 applies only to CECS students following a CECS degree. (Students who were originally in CECS and who transfer to another academic unit do not receive credit for placing out of COMP 105.)

Humanities, and Behavioral Science
or Social Sciences......................................................... 12 credits
Students are required to complete four courses (12 credits): two courses in the humanities area and two courses in the behavioral or social sciences area, from the choices given. Two of the courses (6 of the 12 credits) must be taken in the same academic discipline within either the humanities area or the behavioral/social sciences area and at least one of these two courses must be at 200 level or higher. For specific requirements, see below.

Humanities Area* ............................................................ 6 hrs
Two 100- to 400-level courses from AAAS (239,275, 333, 385, 389, 469, 470), ARTH, COML, COMM, ENGL, FILM or JASS, Foreign Language, MHIS, PHIL, STS (300, 307, 312, 360, 403, 410, 485, 488), WGST (303, 385, 386, 387, 416, 425, 445, 487)

Behavioral or Social Sciences Area*................................. 6 hrs
Two 100- to 400-level courses from AAAS (106, 275, 316, 320, 322, 325, 345, 349, 368, 369, 371, 386, 387, 403, 404), ANTH, ECON (201, 202, and 300-level only), GEOG (201, 205, 206, and 300-level only), HIST, POL, PSYC, SOC, STS (300, 305, 308, 309, 321, 325, 326, 340, 345, 349, 365, 374, 383, 385, 386, 409, 421, 430, 441, 442, 464), WGST (303, 325, 326, 338, 362, 370, 405, 406, 407, 420, 446, 455, 3955)

Two Courses in the Same Academic Discipline, at Least One of Which Must Be at 200 Level or Higher *
Two of the courses (6 of the 12 credits) must be taken in the same academic discipline within either the humanities area or the behavioral/social sciences area above and at least one of these two courses must be at 200 level or higher.

Restricted Elective*....................................................... 3 hrs
One course in the humanities area or the behavioral/social sciences area, from the choices listed OR a 300- or 400-level engineering course in the student’s specific major.

* Non-Credit Courses: students cannot use non-credit courses towards their degree. A list of non-credit courses is found in the CECS Undergraduate Student Handbook available online: engin.umd.umich.edu/SRA/pdf/Student_Handbook.pdf

Mathematics (MATH 115, 116, 205, 216, 217 [or 227]) 16 credits
Chemistry ................................................................. 4-8 credits
CHEM 144 (EE, CE, ISE, MFGE, and ME majors)
CHEM 146 (ISE, MFGE, and ME majors only)
Bioengineering majors take CHEM 134 and 136 (8 credits)
Economics (ECON 201 or 202) ..................................... 3 credits
Physics (PHYS 150 and PHYS 151) ............................... 8 credits

COOPERATIVE EDUCATION

The Engineering Cooperative Education Program (also known as an internship program) is a coordinated integration of classroom work and practical experience in business, industry, and government. The student alternates terms of attendance (co-op program does provide some flexibility, if needed) in class with four-month periods of employment with a cooperating organization, at the employer’s location, while supervised by representatives of both the University and the employer. The work experience is considered an integral part of the educational process, and both the College and the participating employer share responsibility for this integration.

The Computer Information Science Cooperative Education program, like that of Engineering, is an optional program for students who desire practical work experience related to a student’s academic background or individual career interest. Co-op students may be hired under any of three options: 1) alternating full-time, 2) parallel part-time, 3) summer only. Students are encouraged to complete a minimum of two work semesters with a participating employer.

OBJECTIVES, ADVANTAGES, AND REMUNERATION

Emphasis is placed on the educational and training value of work assignments. The student’s earnings, though substantial, must be considered only as an attractive by-product of the cooperative educational processes. As a result, convenience of location or transportation and personal preferences of the student must yield to educational advantages if these advantages cannot be otherwise achieved.
Numerous firms located in Michigan and out-of-state afford a wide range of experiences in all major areas in which students may have career aspirations. Cooperative education experience in professional assignments permits a practical test of vocational interest, the application of classroom knowledge to practical problems, a first-hand exposure to labor-management relationships, the development of responsible work habits, and the prospects of full-time employment upon graduation.

Work assignments, salaries, and employee benefits provide students with the prospect of substantial self-support during their enrollment as UM-Dearborn students.

**STUDENT COUNSELING AND PLACEMENT**

The cooperative education coordinator of the College counsels each co-op student with respect to career interests and aptitudes, and arranges interviews with appropriate cooperating employers. These interviews furnish the opportunity for a professional work assignment that is agreeable to the student and to the employer.

**EVALUATION AND RECOGNITION OF ACHIEVEMENT**

Each student is formally evaluated by the employer, and also must prepare and submit a detailed, well-written work report to the director at the end of each work assignment period. At the conclusion of each work assignment period, a grade determined mainly from the employer’s evaluation and the student’s report will be assigned by the director and recorded on the student’s transcript. The grade assigned and recorded for each work assignment period will be either S for satisfactory or NC (no credit) for unsatisfactory.

Computer Information Science students are awarded academic credit by faculty on the basis of learning achievement and requirements met. CIS students may earn a maximum of nine credits toward their degree programs by completing the equivalent of three full-time (40 hr/wk) work terms for three credits each.

The cooperative education degree option requires a minimum of two work assignments and the possibility of an optional third term of professional employment in the program during the junior and senior years. Successful participation in the required professional work assignment periods is recognized by satisfactory cooperative education performance concurrent with the baccalaureate degree (Not applicable to CIS students). Additionally, the awarding of this certificate is recorded on the student’s academic transcript upon graduation. Eligibility for receiving the satisfactory cooperative education performance certificate will be determined by the engineering cooperative education director based upon the reports submitted on and by the student over the several periods of work assignments.

**PARTICIPATION IN THE COOPERATIVE EDUCATION PROGRAM**

Students in the cooperative education option offered by the College of Engineering and Computer Science shall participate in four-month work periods alternating with their classroom terms. Students admitted to the CIS co-op program must fulfill the study-term requirements of the alternate, parallel, or summer only plans. Details on the study-term requirements are available through the co-op office. These alternating work periods may not be waived except as follows: 1) where academic achievement in any term is so poor as to minimize the possibility of the student successfully pursuing the academic program to the end; in such cases, the student will immediately be required to repeat a regular classroom term or be caused to withdraw from the College of Engineering and Computer Science; 2) where such illness or disability exists that, in the opinion of the employer or suitable medical counselor, industrial assignment would not be in the best interests of the employer and/or the student during a particular term.

Both the cooperating employers and the University expect that students participating in the cooperative education program will be able to demonstrate a considerable increase in academic knowledge after each term of classroom study. Therefore, participants in the CECS Cooperative Education Program must be full-time students during their alternated class terms; that is, must satisfactorily complete at least 12 credit hours of their degree program course work during each scheduled class term.

**ADMISSION TO THE COOPERATIVE EDUCATION PROGRAM**

The first and most important step toward admission to the CECS Cooperative Education Program is current enrollment as an undergraduate student in good academic standing in a CECS degree program. Since the first co-op work period is always scheduled within the junior academic year, sophomores enrolled in the CECS will be accepted into the CECS Cooperative Education Program for participation in career counseling and placement interviewing activities during the second term of their sophomore year. Transfer students admitted to the CECS at the junior year level may be accepted into the Cooperative Education Program after completing one semester as a full-time student (12 credits). In all but the most unusual circumstances, all students must apply for admission to the internship program not later than during the registration week of the class term preceding their intended first work assignment period or as advertised by the CECS Cooperative Education Director.

An application for acceptance into the CECS Cooperative Education Program may be submitted later than the first term of the junior year but will not be approved when the class level of the student is such that there will not be sufficient time prior to graduation to participate in the program for at least two co-op periods alternated with the usual terms of class.

The basic entrance-level requirement of the CECS Cooperative Education Program, applying to all students, is satisfactory completion of the sophomore year, with a recommended GPA of at least 2.30. Student admitted to the CIS program must have completed 30 semester hours (sophomore status) and have a minimum cumulative GPA of 2.25. Transfer students must have completed 12 UM-Dearborn credit hours. The courses of this basic requirement include the calculus sequence, differential equations, linear algebra, college chemistry, the engineering physics sequence, and introductory courses in engineering that include computer-aided tools for design and analysis.

In addition to the basic entrance-level requirement there also are specific courses that must be satisfactorily completed before beginning the first co-op work period. These specific courses, which differ according to the degree programs, are all courses normally scheduled in the sophomore year under CECS’s basic freshman-sophomore curriculum (the equivalent course at another college may be acceptable for a transfer student).

For the mechanical engineering co-op student, the specific required courses that must be satisfactorily completed are computer methods in mechanical engineering and thermodynamics or applied mechanics.

The specific courses required for the industrial and manufacturing systems engineering co-op student are computer programming for engineers and manufacturing processes. Thermodynamics and applied mechanics are optional courses.
For the electrical engineering co-op student, the specific required courses for those enrolled at UM-Dearborn during their sophomore year are digital systems in electrical engineering and the first courses in circuits.

The purpose of these course requirements is to prepare the co-op student academically for professional work assignments where there will be continual association with practicing engineers in their daily work. Through fulfillment of these requirements the co-op student will have sufficient competence to function as a member of an engineering group.

REGISTRATION IN THE COOPERATIVE EDUCATION PROGRAM

Each co-op work assignment extends for one term (four months) and occupies the student full time. From a group of co-op courses available, the co-op student elects a two or three-credit hour course whose content is appropriate to the particular field of engineering and to the level of practice being undertaken that term. Three such registrations are recommended (two are required) for a total of seven credit hours, for satisfactory completion of the Cooperative Education Program. All credit hours earned via co-op courses are added to the academic (classroom) credit hours required in the undergraduate program of studies pursued by the student. Since the co-op work assignment occupies the student full-time, registration in courses other than the co-op course is strongly discouraged. A student on a co-op assignment cannot elect more than one other course besides the co-op course (two courses maximum including the co-op course) during the semester. CIS students can earn up to seven co-op credits toward graduation. CIS students register from a group of co-op courses (CIS 299, 399, 499). The student elects a three-credit hour course whose content is appropriate to the level of practice being undertaken that term. Three such registrations are recommended for satisfactory completion of the Cooperative Education Program.

In some instances students may be involved in a cooperative-type educational program prior to their eligibility for and/or acceptance into the Engineering Cooperative Education Program. Such cooperative-type programming might occur either while enrolled at UM-Dearborn or at another educational institution. However, no regular employment completed prior to formal enrollment in the CECS Cooperative Education Program will be considered as satisfying the requirements of the CECS Cooperative Education Program.

International Study

Student Exchange Programs with the Jönköping School of Engineering in Jönköping, Sweden and the Ulm University of Applied Sciences in Ulm, Germany

The College of Engineering and Computer Science has a formal student exchange program with the Jönköping School of Engineering in Jönköping, Sweden. CECS undergraduates in good standing in any major are eligible to apply. A formal exchange program also exists with Ulm University of Applied Sciences in Germany for Mechanical Engineering coursework.

Students choose the classes they will take during the student exchange semester in consultation with the CECS International Advisor and with their faculty advisor. They register for their exchange classes at UM-Dearborn and pay regular UM-Dearborn tuition. The student exchange classes are listed as UM-Dearborn classes on the UM-Dearborn transcript. Students register for a full load during their student exchange semester, consisting of three technical courses in engineering or computer science taught in English and a fourth language course.

Prechter International Travel Fellowship

CECS students may be eligible for a travel fellowship to help defray some of the cost of travel associated with approved international studies. The travel fellowships are made possible by a gift from Ms. Waltraud Prechter to the CECS’ Institute for Advanced Vehicle Systems.

CECS students should make an appointment with the CECS International Advisor (2000 HPEC) for information about the Jönköping and Ulm programs and the travel fellowship.

Undergraduate Programs

Computer and Information Science

[SEE CIS, UNDER THE COLLEGE OF ENGINEERING AND COMPUTER SCIENCE, ON THE UNIVERSITY HOME PAGE ON THE INTERNET FOR ANY CHANGES AND UPDATES – engin.umid.umich.edu ]

Computing professionals offer expertise in the effective and efficient use of computers for solving human problems, whether that be as a member of a project development team, as a builder of powerful and easy-to-use tools, as an individual researcher, or as an educator.

Required courses in the CIS major stress theory and application, as well as the role of other fields such as mathematics, statistics, electrical and computer engineering, business, and software engineering, among others. The curriculum is modeled on the recommendations of the two main professional computing societies, the Association of Computing Machinery (ACM) and the Institute for Electrical and Electronic Engineering (IEEE). Written and oral communications skills are emphasized throughout the program. The use of teamwork on projects is practiced in many courses. Professionalism and ethics are also stressed for future computing professionals. The CIS courses include software engineering, algorithm analysis, networking, security, programming languages, game design, computer architecture, data structures, operating systems, artificial intelligence, database management systems, graphics, information systems, robotics, web development and capstone design courses.

The CIS curricula prepare students to begin careers as computing professionals or to pursue graduate study in the field. The BS in Computer and Information Science program is accredited by the Computing Accreditation Commission of ABET (the Accreditation Board in Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone (410) 347-7700. A candidate for the degree of BS in CIS is required to select one of two concentrations: Computer Science or Information Systems. A BS in Software Engineering is also offered. Both programs encourage innovation on the part of students, prepare students for graduate education, train students to communicate effectively, and provide students with the tools needed to become leaders in their profession.
The Computer Science concentration emphasizes understanding how computer systems work, as well as their uses as critical components in other disciplines, and prepares its graduates for positions in systems programming, scientific programming, networks, game programming, web technology, graphics and visualization, and enterprise computing among others.

The Information Systems concentration is oriented toward the design and development of computer information systems. It includes more business-related courses than the computer science concentration, and prepares graduates for positions in applications programming, database management, information systems design, and information engineering, among others.

The Software Engineering degree program stresses the range of technical, systematic and managerial aspects of the software development process, but places primary emphasis on the technical facets of designing, building, and modifying large and complex software systems. The BS in Software Engineering program is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

The BS in Software Engineering (SE) prepares students to demonstrate expertise in the effective and efficient use of computers to solve problems relating to the disciplined development, instrumentation and maintenance of quality software, whether as members or leaders of product development teams. Software engineers work as project managers, game designers, applications programmers, quality assurance specialists, test engineers, and user interface designers.

CAREER OPPORTUNITIES

A wide variety of employment opportunities is available to computer and information science graduates, as mentioned above. The University’s Career Services Office assists students and graduates in planning careers in computer and information science and offers many job listings in the computer industry.

COOPERATIVE EDUCATION/INTERNSHIP PROGRAM

Work experience opportunities are available for qualified computer and information science students through the CECS Cooperative Education Office. These programs allow students to earn a salary and up to nine credit hours which can be applied toward graduation while working full-time during alternate semesters or part-time during regular semester for participating firms or governmental agencies (Acromag, APPLE, Chrysler, DENSO, DTE Energy, Ford, General Electric, Harmon Becker, NASA, Nokia, TACOM, U.S. Steel, Xilinx, etc.).

CIS STUDENT ADVISORY BOARD (CISSAB)

The Department has in place a mechanism for ensuring continuous high-quality input from students at all levels, through a faculty-nominated board of students and alumni.

CIS PROFESSIONAL ADVISORY BOARD (CISPAB)

The Department continually seeks outside interactions with business, industries, and government through its Professional Advisory Board. The PAB is composed of senior computing technologists who provide input on curriculum, potential employment for students, research opportunities for faculty, and a perspective on future challenges requiring collaboration.

COMPUTING FACILITIES

Student software development is done in various campus computing laboratories, having IBM-compatible PC’s, UNIX machines, a CRAY supercomputer, and Macintosh computers as well as specialized department computing laboratories. The software available includes state-of-the-art tools for database, video conferencing, software engineering, expert systems, a large number of operating systems (e.g., LINUX, Windows, Macintosh, etc.), programming languages and solid modeling tools. These labs are all staffed by student assistants under the direction of a laboratory manager.

UPSILON PI EPSILON (UPE)

UPE is the national computer science honor society. Membership is available to upper-division students maintaining a 3.0 GPA for all course work. UPE sponsors a variety of educational and social events on campus.

ASSOCIATION FOR COMPUTING MACHINERY (ACM)

The student chapter of the Association for Computing Machinery (ACM) sponsors “chalk talks” to help familiarize students with new computing technologies, guest speakers on computer-related topics, and a variety of social events.

BS in Computer and Information Science (CIS)

The BS degree in Computer and Information Science is accredited by the Computing Accreditation Commission of ABET (the Accreditation Board in Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone (410) 347-7700.

Program Objectives

1. Our graduates will be successfully employed in computer science–related fields or other career paths, including industrial, academic, governmental, and non-governmental organizations, or will be successful graduate students in a program preparing them for such employment.
2. Our graduates will lead and participate in culturally diverse teams, becoming global collaborators.
3. Our graduates will continue their professional development by obtaining continuing education credits, professional registration or certifications, or post-graduate study credits or degrees.

Computer Science Program Outcomes

a. An ability to apply knowledge of computing and mathematics appropriate to the discipline;
b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
c. An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs;
d. An ability to function effectively on teams to accomplish a common goal;
e. An understanding of professional, ethical, legal, security, and social issues and responsibilities;
f. An ability to communicate effectively with a range of audiences;
g. An ability to analyze the local and global impact of computing on individuals, organizations, and society;
h. A recognition of the need for, and an ability to engage in, continuing professional development;

i. An ability to use current techniques, skills, and tools necessary for computing practices;

j. An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices;

k. An ability to apply design and development principles in the construction of software systems of varying complexity.

**General Requirements**

Selections must be from courses numbered 100-200 unless otherwise stated. Campus distribution requirements are included within these general requirements.

**Composition** .............................................. 6 hrs
COMP 105 and COMP 270

**Economics** ............................................. 3 hrs
ECON 201 Principles of Macroeconomics

**Humanities** ............................................. 6 hrs
Two 100- to 400-level courses from AAAS (239, 275, 333, 385, 389, 469, 470), ARTH, COML, COMM, ENGL, JASS, Foreign Language, MHIS, PHIL, STS (300, 307, 312, 360, 403, 410, 485, 488), WGST 303, 385, 386, 387, 416, 425, 445, 487

**Behavioral or Social Sciences** .......................... 6 hrs
Two 100- to 400-level courses from AAAS (106, 275, 316, 320, 322, 325, 345, 349, 368, 369, 371, 386, 387, 403, 404), ANTH, ECON (202, 300-level only), GEOG (201 or 205; 300-level only), HIST, POL, PSYC, SOC, STS (300, 305, 308, 309, 321, 325, 326, 340, 345, 349, 365, 374, 383, 386, 409, 421, 430, 441, 442, 464), WGST (303, 325, 326, 338, 362, 370, 405, 406, 407, 420, 455, 3955)

**Upper-Level Course** ..................................... 3 hrs
One 200-level or higher course, in same discipline as a course already taken in Humanities or Behavioral/Social Sciences.

**Mathematics and Statistics** ............................. 17 hrs
MATH 115, 116
MATH 217 (Not to be taken by Information Systems Concentrators) or MATH 227
CIS 275, IMSE 317 or MATH 425

**Laboratory Science Sequence** .......................... 8 hrs
BIOL 130 and BIOL 140 OR
CHEM 134 and CHEM 136 OR
CHEM 144 and CHEM 146 OR
GEOL 118 and GEOL 218 OR
PHYS 125 and PHYS 126 OR
PHYS 150 and PHYS 151

**CONCENTRATION REQUIREMENTS**

**for Computer Science Concentrators**

**Natural Science** ........................................ 4 hrs
Four additional science credits from ASTR 130/131, BIOL 130, BIOL 140, CHEM 134, CHEM 136, CHEM 144, CHEM 146, CHEM 225, CHEM 226, CHEM 227, GEOL 118, GEOL 218, PHYS 125, PHYS 126, PHYS 150, PHYS 151

Game Design Track MUST TAKE PHYS 125 or PHYS 150 as

4 of the 12 credits of required lab science, OR as the 3rd science course

**Mathematics** ............................................. 4 hrs
CIS 306

**Business Course** ......................................... 3 hrs
ENGR 400 Applied Business Techniques for Engineers

**CIS Core** .................................................. 28 hrs
Seven computer and information science courses are required of

Computer Science concentrators:
CIS 150 Computer Science I
CIS 200 Computer Science II
CIS 310 Computer Organization and Assembly Language
CIS 350 Data Structures and Algorithm Analysis
CIS 375 Introduction to Software Engineering
CIS 427 Computer Networking and Distributed Processing
CIS 450 Operating Systems

**Technical CISC Electives**

Zero to 12 credits (depending upon Specialization chosen) from:
CIS 285 Software Engineering Tools .......................... 3 hrs
CIS 294 (3), CIS 296 (3), or CIS 297 (3)

CIS 375 Introduction to Software Engineering ........... 3 hrs

**CHOOSE ONE TRACK**
The track courses, CISC Electives, and General Electives must add up to 28 credits. See further on for specific requirements:

A) **ENGINEERING SYSTEMS**

B) **GAME DESIGN**

C) **NETWORKING**

D) **SYSTEMS FOUNDATIONS**

E) **INDIVIDUALIZED COMPUTER SCIENCE**

**Zero to 12 credits (depending upon Specialization chosen) from:**
CIS 437 Advanced Networking .................................. 3 hrs
CIS 447 Computer and Network Security .......... 3 hrs
CIS 451 Computer Graphics .................................. 3 hrs
CIS 452 Computer Animation ................................ 3 hrs
CIS 467 Digital Forensics II ................................ 4 hrs
CIS 474 Compiler Design ...................................... 3 hrs
CIS 476 Software Architecture and Design ................. 3 hrs
CIS 479 Artificial Intelligence ................................ 3 hrs
CIS 487 Computer Game Design and Implementation I ............ 3 hrs
CIS 488 Computer Game Design and Implementation II ............ 3 hrs

CCM 404 Dynamical Systems ................................ 3 hrs
CCM 472 Numerical Analysis ................................ 3 hrs
CCM 473 Math Modeling ...................................... 3 hrs
ECE 372 Introduction to Microprocessors .... 3 hrs
ECE 473 Embedded Systems ................................ 4 hrs
General Electives ................................. 7-10 hrs
Any for-credit courses; that is, courses not on the No Credit list, which is found at the end of the CECS Student Handbook, engin.umd.umich.edu/Publications/student_handbook.php, and is also posted outside 2000 HPEC. No Credit courses do not count toward the degree. No Credit courses include ECON 305, PSYC 381, SOC 383, and many other courses.

Note: At least six of the 12 credits must be taken outside computer science, mathematics, natural science and engineering courses.

REQUIREMENTS FOR THE CISC TRACKS
CHOOSE ONLY ONE TRACK (The track courses and appropriate electives must add up to 28 credits)
A) CISC–ENGINEERING SYSTEMS (Engineering Applications) Track (28 credits)
One of the following three courses:
CIS 294 (3) Visual Basic, OR CIS 296 (3) Java Programming,
OR CIS 297 (3) C# Programming
CIS 381 (3) Industrial Robotics
CIS 400 (4) Programming Languages
CIS 435 (3) Web Technology
ECE 472 (4) Microprocessors
ECE 473 (4) Embedded Systems
Seven (7) credits of General Electives [At least 6 credits must be outside CIS, mathematics, natural science, and engineering]**

B) CISC – GAME DESIGN Track (28 credits)
CIS 297 (3) C# Programming
CIS 451 (3) Computer Graphics
CIS 452 (3) Computer Animation
CIS 479 (3) Artificial Intelligence
CIS 487 (3) Computer Game Design and Implementation I
CIS 488 (3) Computer Game Design and Implementation II
Ten (10) credits of General Electives [At least 6 credits must be outside CIS, mathematics, natural science, and engineering]**

Note that as part of the 24 credits of required distribution, Game Design students must take the following 15 credits:
Three courses (9 credits) from: JASS 240, 248, 315, 345, 350, 370, 403, 410
Two courses (6 credits) in the Behavioral or Social Sciences, from the choices listed on the previous page

Note that as part of the 12 credits of required science courses, Game Design students must take the following 4 credits:
Either PHYS 125 (4) OR PHYS 150 (4), as part of the 2-course lab science sequence or as the 3rd laboratory science course

C) CISC – NETWORKING Track (28 credits)
One of the following three courses:
CIS 294 (3) Visual Basic, OR CIS 296 (3) Java Programming,
OR CIS 297 (3) C# Programming
CIS 400 (3) Programming Languages
CIS 421 (4) Database Systems
CIS 435 (3) Web Technology
CIS 437 (3) Advanced Networking
CIS 447 (3) Computer and Network Security
Eight (8) credits of General Electives [At least 6 credits must be outside CIS, mathematics, natural science, and engineering]**

D) CISC–SYSTEMS FOUNDATIONS (Computer Science Foundations) Track (28 credits)
One of the following three courses:
CIS 294 (3) Visual Basic, OR CIS 296 (3) Java Programming,
OR CIS 297 (3) C# Programming
CIS 400 (4) Programming Languages
CIS 405 (3) Algorithm Analysis and Design
CIS 421 (4) Database Systems
CIS 474 (3) Compiler Design
CIS 479 (3) Artificial Intelligence
Eight (8) credits of General Electives [At least 6 credits must be outside CIS, mathematics, natural science, and engineering]**

E) CISC – INDIVIDUALIZED (Computer Science ) Track (28 credits)
One of the following three courses:
CIS 294 (3) Visual Basic, OR CIS 296 (3) Java Programming,
OR CIS 297 (3) C# Programming
CIS 400 (4) Programming Languages
Twelve (12) credits of CISC Electives from courses listed under CISC Electives on the previous page
Nine (9) credits of General Electives [At least 6 credits must be outside CIS, mathematics, natural science, and engineering]**

CONCENTRATION REQUIREMENTS
for Information Systems Concentrators

ADDITIONAL PROGRAM REQUIREMENTS
Business and Operations Research  13 hrs
The following four courses
ACC 298    Financial Accounting
OB 354    Behavior in Organization
IMSE 3005    Introduction to Operations Research
ENGR 400    Applied Business Techniques for Engineers

CIS Core............................................................................ 28 hrs
Seven computer and information science courses are required of Information Science concentrators:
CIS 150    Computer Science I
CIS 200    Computer Science II
CIS 310    Computer Organization
CIS 350    Data Structures and Algorithm Analysis
CIS 375    Introduction to Software Engineering
CIS 427    Computer Networks and Distributed Process
CIS 450    Operating Systems

CIS Information Systems Required........................................ 18 hrs
Six computer and information science courses are required of Information Systems Concentrators
CIS 294    Visual Basic
CIS 296    Java Programming
CIS 421    Database Systems
CIS 425    Information Systems
CIS 476    Software Architecture and Design Patterns
CIS 4951    Design Seminar I
CIS 4952    Design Seminar II

Technical CIS Information Systems Electives ............... 7 hrs
CIS 285    Software Engineering Tools ......................... 3 hrs
CIS 297    C# Programming .................................... 3 hrs
CIS 306    Discrete Structures II ................................. 4 hrs
CIS 376  Software Engineering II .......................... 4 hrs  
CIS 381  Robotics ........................................... 3 hrs  
CIS 387  Digital Forensics I ................................. 4 hrs  
CIS 400  Programming Languages .......................... 4 hrs  
CIS 405  Algorithm Analysis and Design ..................... 3 hrs  
CIS 423  Decision Support & Expert Systems ............ 3 hrs  
CIS 435  Web Technology .................................... 3 hrs  
CIS 437  Advanced Networking .............................. 3 hrs  
CIS 447  Computer and Network Security ................. 3 hrs  
CIS 451  Computer Graphics ................................... 3 hrs  
CIS 452  Computer Animation ................................ 3 hrs  
CIS 467  Digital Forensics II ............................... 4 hrs  
CIS 474  Compiler Design ..................................... 3 hrs  
CIS 479  Artificial Intelligence ............................... 3 hrs  
CIS 487  Computer Game Design and Implementation I ... 3 hrs  
CIS 488  Computer Game Design and Implementation II .. 3 hrs  
CCM 404  Dynamical Systems .................................. 3 hrs  
CCM 472  Numerical Analysis ................................. 3 hrs  
CCM 473  Math Modeling ....................................... 3 hrs  
ECE 372  Introduction to Microprocessors ................. 3 hrs  
ECE 473  Embedded Systems .................................... 4 hrs  

**General Electives ................................................. 7 hrs**  
Any for-credit courses; that is, courses not on the No-Credit list, which is found at the end of the CECS Student Handbook, engin.umd.umich.edu/Publications/student_handbook.php and is also posted outside 2000 HPEC. No Credit courses do not count toward the degree. No Credit courses include PSYC 381, SOC 383, and many other courses.

**MINOR IN COMPUTER AND INFORMATION SCIENCE**

The minor in CIS requires a minimum of 24 credit hours, which must include CIS 150, CIS 200, CIS 275, CIS 350 and eight additional credit hours at the 300 or 400 level approved by the student’s faculty advisor in CIS. An introduction to calculus (MATH 115) is required and does not count toward the 24 hours. Completion of MATH 116 is strongly recommended.

**BS in Software Engineering**

Software Engineering is the discipline that is concerned with the theoretical and practical aspects of building high quality software systems, on time, and within budget. Software engineers are tasked with the detailed analysis, design, implementation, testing, maintenance and management of software product development projects for a broad range of computing applications across society.

The increasing pressure to deliver high-quality, reliable software products in less time is rapidly fueling the demand for computer professionals with specific preparation in software engineering and experience in working on teams. These pressures stem from such widespread development as:

- The use of software for demanding and safety-critical applications that make it imperative to avoid the serious, indeed sometimes fatal, consequences of poorly understood design.
- The need to create consumer and entertainment applications like computer games, in the face of a highly competitive global market place.
- The increasing need to develop useful, easy-to-use software tools that reliably meet customer needs and whose features and documentation can be used and understood by their intended user with a high degree of consistency and confidence.
- The need to re-engineer or replace aging legacy software systems to take advantage of modern computer hardware capabilities.

Recent advances in the practice and technology of software engineering have made it possible to offer undergraduate and graduate degree programs in software engineering itself. Notable among these advances are:

- The availability of proven computer tools (such as CASE tools) and processes (such as the Personal Software Process) to standardize and automate software development.
- The increasing importance of formal methods and software quality measurement techniques to ensure more thorough testing of software.
- The success of the agile and object-oriented software engineering methods, as well as the move toward technical and managerial practices that cover the full software development cycle.

Software engineers must know the subset of computer science that is relevant to software development. They must also have knowledge of the principles of effective and reliable design, of mathematics and other sciences that are traditionally known by engineers, and of the skills and applications of project management.

Software engineering includes:

- Software design and development; that is, building commercial, industrial-strength software by the application of validated knowledge and experience that have been codified into formal methods of best practices.
- Software process and quality assurance; that is, the systematic discipline of consciously improving the quality, cost and timeliness of the process itself by which large software systems are designed and developed.
- Software development project management; that is, how to manage large software design projects and bring development to a timely and efficient completion.

The software engineering degree program offered by the Department of Computer and Information Science stresses the range of technical, systematic, and managerial aspects of the software engineering process but places primary emphasis on the technical facets of designing, building, and modifying large and complex software systems. This program concentrates on all software development lifecycle phases, including: program management, requirements engineering, software architecture design, software implementation, software configuration management, software quality assurance, and software process maturity measurements and improvements. It balances both theoretical and practical aspects by covering fundamentals in the classroom and evaluating student knowledge by implementing team-based work projects. Students complete a minimum of 120 credits and receive a BS degree in Software Engineering. The degree prepares graduates for immediate employment in the software engineering field and for graduate study.

The BS degree in Software Engineering is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.
Program Objectives

1. Our graduates will be successfully employed in software engineering–related fields or other career paths, including industrial, academic, governmental, and non-governmental organizations, or will be successful graduate students in a program preparing them for such employment.
2. Our graduates will lead and participate in culturally diverse teams, becoming global collaborators.
3. Our graduates will continue professional development by obtaining continuing education credits, professional registration or certifications, or post-graduate study credits or degrees.

Program Outcomes

- An ability to apply knowledge of mathematics, science, and engineering;
- An ability to design and conduct experiments, as well as to analyze and interpret data;
- An ability to design a system, component, or process to meet desired needs within realistic constraints, such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- An ability to function on multidisciplinary teams;
- An ability to identify, formulate, and solve engineering problems;
- An understanding of professional and ethical responsibility;
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- A recognition of the need for, and an ability to engage in, life-long learning;
- A knowledge of contemporary issues;
- An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
- An ability to program.

CONCENTRATION REQUIREMENTS

General Requirements ........................................................................ 60 hrs

English Composition ........................................................................ 6 hrs
COMP 105 Composition I
COMP 270 Technical Writing for Engineers

Economics
ECON 201 Principles of Macroeconomics ......................... 3 hrs

Humanities ..................................................................................... 6 hrs
Two 100- to 400-level courses from AAAS (239 or 275; 333, 385, 389, 469, 470), ARTH, COML, COMM, ENGL, JASS, Foreign Language, MHS, PHIL, STS (300, 307, 312, 403, 410, 485, 488), WGST (303, 385, 386, 387, 416, 425, 445, 487)

Behavioral/Social Science
Two 100- to 400-level courses from AAAS (106, 275, 316, 320, 322, 325, 345, 349, 368, 369, 371, 386, 387, 403, 404), ANTH, ECON (202; 300-level only), GEOG (201 or 205; 300-level only), HIST, POL, PSYC, SOC, STS (300, 305, 308, 309, 321, 325, 326, 340, 345, 349, 365, 374, 383, 386, 409, 421, 430, 441, 442, 464), WGST (303, 325, 326, 338, 362, 370, 405, 406, 407, 420, 455, 3955)

Business courses ........................................................................... 6 hrs
ENGR 400 Applied Business Techniques for Engineers
OB 354 Behavior in Organization

Mathematics ........................................................................ 21 hrs
MATH 115 Calculus I .......................................................... 4 hrs
MATH 116 Calculus II ...................................................... 4 hrs
CIS 275 Discrete Structures I ....................................... 4 hrs
CIS 306 Discrete Structures II ................................... 4 hrs

MATH 217 Matrix Algebra ................................................. 2 hrs
MATH 227 Linear Algebra ............................................. 3 hrs
IMSE 317 Probability and Statistics ................................. 3 hrs
MATH 425 Mathematical Statistics II ........................... 3 hrs

Laboratory Science Sequence ........................................... 8 hrs
Two courses, 8 credits, in one sequence from:
BIOI 130 and BIOI 140
OR
CHEM 134 and CHEM 136
OR
CHEM 144 and CHEM 146
OR
GEOL 118 and GEOL 218
OR
PHYS 125 and PHYS 126
OR
PHYS 150 and PHYS 151

Natural Science ........................................................................ 4 hrs
Four credits from:
ASTR 130/131, BIOI 130, BIOI 140, CHEM 134, CHEM 136, CHEM 144, CHEM 146, CHEM 225, CHEM 226, CHEM 227, GEOL 118, GEOL 218, PHYS 125, PHYS 126, PHYS 150, PHYS 151

CIS Core .............................................................................. 28 hrs
Seven computer and information science courses are required of Computer Science concentrators

CIS 150 Computer Science I ............................................. 4 hrs
CIS 200 Computer Science II ...................................... 4 hrs
CIS 310 Computer Organization and Assembly
CIS 3501 Data Structures and Algorithm Analysis for Software Engineers ......................... 4 hrs
CIS 375 Software Engineering I .................................... 4 hrs
CIS 427 Computer Networks and Distributed Process .......................................................... 4 hrs
CIS 450 Operating Systems ............................................ 4 hrs

Software Engineering Requirements .................................... 17 hrs
Two 100- to 400-level courses from AAAS (106, 275, 316, 320, 322, 325, 345, 349, 368, 369, 371, 386, 387, 403, 404), ANTH, ECON (202; 300-level only), GEOG (201 or 205; 300-level only), HIST, POL, PSYC, SOC, STS (300, 305, 308, 309, 321, 325, 326, 340, 345, 349, 365, 374, 383, 386, 409, 421, 430, 441, 442, 464), WGST (303, 325, 326, 338, 362, 370, 405, 406, 407, 420, 455, 3955)

Behavioral/Social Science
Two 100- to 400-level courses from AAAS (106, 275, 316, 320, 322, 325, 345, 349, 368, 369, 371, 386, 387, 403, 404), ANTH, ECON (202; 300-level only), GEOG (201 or 205; 300-level only), HIST, POL, PSYC, SOC, STS (300, 305, 308, 309, 321, 325, 326, 340, 345, 349, 365, 374, 383, 386, 409, 421, 430, 441, 442, 464), WGST (303, 325, 326, 338, 362, 370, 405, 406, 407, 420, 455, 3955)

CIS 4961 Design Seminar for Software Engineers II ............ 2 hrs
CIS 4962 Design Seminar for Software Engineers I ............. 3 hrs

One Application Sequence .................................................. 7 to 9 hrs
(The Application Area and Technical Electives must total 14 hrs)

Information Systems Sequence
CIS 425 Information Systems ........................................... 4 hrs
CIS 447 Introduction to Computer and Network Security ......................... 3 hrs
Computer Game Design Sequence
CIS 297 Introduction to C# .......................... 3 hrs
CIS 487 Computer Game Design and Implementation I .......................... 3 hrs
CIS 488 Computer Game Design and Implementation II ........................ 3 hrs

Web Engineering Sequence
CIS 421 Database Systems............................ 4 hrs
CIS 435 Web Technology ............................... 3 hrs

Technical Electives ...................................... 5-7 hrs
(The Application Area and Technical Electives must total 14 hrs)

Five to seven additional credits from the following:

Only one of the following 3 courses may be used towards the 120 credits of the degree:
CIS 294 (3), CIS 296 (3), or CIS 297 (3)
CIS 381 Industrial Robots ............................... 3 hrs
CIS 387 Digital Forensics I ............................... 4 hrs
CIS 400 Programming Languages .................... 4 hrs
CIS 405 Algorithm Analysis and Design ............. 3 hrs
CIS 421 Database Systems .............................. 4 hrs
CIS 423 Decision Support & Expert Systems ........ 3 hrs
CIS 425 Information Systems ......................... 4 hrs
CIS 435 Advanced Networking ....................... 3 hrs
CIS 447 Computer and Network Security ............. 3 hrs
CIS 451 Computer Graphics ............................ 3 hrs
CIS 452 Computer Animation ........................... 3 hrs
CIS 467 Digital Forensics II ............................. 4 hrs
CIS 474 Compiler Design ................................. 3 hrs
CIS 479 Artificial Intelligence ........................... 3 hrs
CIS 487 Computer Game Design and Implementation I .......................... 3 hrs
CIS 488 Computer Game Design II .............. 3 hrs
ECE 372 Introduction to Microprocessors ............. 3 hrs
ECE 473 Embedded System Design ................... 4 hrs

Note: Application Area Sequence + Technical Electives must total 14 hrs.

General Electives ...................................... 4 hrs
These credits must be taken outside computer science, mathematics, natural science and engineering courses.

Any for-credit courses; that is, courses not on the No Credit list, which is found at the end of the CECS Student Handbook, engin.umd.umich.edu/Publications/student_handbook.php, and is also posted outside 2000 HPEC. No Credit courses do not count toward the degree. No Credit courses include PSYC 381, SOC 383 and many other courses.

BS in Digital Forensics

Digital Forensics is the area of computer science concerned with the examination and analysis of computer hard drives, storage devices, cell phones, PDA’s, or any electronic device that may hold evidence which could be used in a court of law. The device could be as simple as a cell phone or as complex as a main server for a large corporation. The digital forensics analyst uncovers and preserves data for later use as legal evidence, and analyzes the data in light of a particular crime or criminal or civil investigation. This may involve determining how hackers or unauthorized persons gained access to information or computer systems as well as where and how they navigated within the system.

Digital forensics specialists recover files and emails or other electronic correspondence that have been deleted or erased. They also recover data after hardware or software failure, and develop means to harden computer, cyber, and data security against loss, corruption, sabotage, or external attack.

The College of Engineering and Computer Science Digital Forensics degree program covers a wide range of knowledge, including forensic accounting and the criminal justice aspects of forensics, but puts primary emphasis on deep knowledge of computer science subjects, such as data structures, algorithms, software engineering, database management, computer networks, web technology, operating systems, and security.

The tasks of a digital forensics specialist include:
- Conduct computer forensic investigations and electronic discovery requests for various clients
- On-site collection of data at client facilities
- Verify, analyze, and transfer secure data sets from field investigators
- Use off-the-shelf and proprietary data collection, analysis, and reporting tools
- Develop security tools and methodologies to incorporate into current business practices and processes.

Students complete a minimum of 123 credits and earn a Bachelor of Science (B.S.) degree in Digital Forensics.

Students in the College of Engineering and Computer Science Digital Forensics program are advantaged by graduating from one of the few such computer science-heavy programs in the country.

Program Objectives

1. Our graduates will be successfully employed in digital forensics–related fields or other career paths, including industrial, academic, governmental, and non-governmental organizations, or will be successful graduate students in a program preparing them for such employment;
2. Our graduates will lead and participate in culturally diverse teams, becoming global collaborators;
3. Our graduates will continue professional development by obtaining continuing education credits, professional registration or certifications, or post-graduate study credits or degrees.

Program Outcomes

a. An ability to apply knowledge of computing and mathematics appropriate to the discipline;
b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution;
c. An ability to communicate effectively with a range of audiences;
d. An ability to use current techniques, skills, and tools necessary for computing practices;
e. An ability to apply design and development principles in the construction of software systems of varying complexity.

CONCENTRATION REQUIREMENTS

General Requirements ............................ 67 hrs

English Composition ............................ 67 hrs
COMP 105 Composition I
COMP 270 Technical Writing for Engineers
Humanities .......................................................... 3 hrs
One 100- to 400-level course from AAAS (239 or 275; 333, 385, 389, 469, 470). ARTH, COML, COMM, ENGL, JASS, Foreign Language, MHIS, PHIL, STS (300, 307, 312, 403, 410, 485, 488), WGST (303, 385, 386, 387, 416, 425, 445, 487)

Behavioral/Social Science ....................................... 21 hrs
POL 101 Introduction to American Government
SOC 200 Introduction to Sociology
CRJ 363 Criminal Justice Policy & Administration
CRJ 465 Developmental Behavior & Social Disorganization
CRJ 468 Criminology
CRJ 474 Cybercrimes
CRJ 475 Digital Evidence

Business courses ................................................... 12 hrs
ACC 298 Financial Accounting
ACC 304 Auditing and Forensic Examinations
ENGR 400 Applied Business Techniques for Engineers
OB 354 Behavior in Organization

Mathematics ........................................................... 17 hrs
MATH 115 Calculus I .............................................. 4 hrs
MATH 116 Calculus II ............................................. 4 hrs
CIS 275 Discrete Structures I .................................. 4 hrs
MATH 217 Matrix Algebra ....................................... 2 hrs
CRJ 467 Linear Algebra ......................................... 3 hrs
IMSE 317 Probability and Statistics .......................... 3 hrs

Laboratory Science Sequence ................................... 8 hrs
Two courses, 8 credits, in one sequence from:
  BIOL 130 and BIOL 140
  OR
  CHEM 134 and CHEM 136
  OR
  CHEM 144 and CHEM 146
  OR
  GEOL 118 and GEOL 218
  OR
  PHYS 125 and PHYS 126
  OR
  PHYS 150 and PHYS 151

Digital Forensics Core .............................................. 35 hrs
Eight computer and information science courses are required of Digital Forensics concentrators
CIS 150 Computer Science I ................................... 4 hrs
CIS 200 Computer Science II .................................. 4 hrs
CIS 310 Computer Organization and Assembly
Language ............................................................ 4 hrs
CIS 350 Data Structures and Algorithm .................... 4 hrs
CIS 375 Software Engineering I ............................. 4 hrs
CIS 421 Database Management Systems .................. 4 hrs
CIS 427 Computer Networks and Distributed Process
Web Technology .................................................. 3 hrs
CIS 450/ECE 478 Operating Systems ....................... 4 hrs

Computer Science Senior Design Seminars ................. 4 hrs
CIS 4951 Design Seminar I .................................... 2 hrs
CIS 4952 Design Seminar II ................................... 2 hrs

Digital Forensics Courses ....................................... 17 hrs
CIS 447 Introduction to Computer and Network Security ............................................. 3 hrs
CIS/ECE 387 Digital Forensics I ............................ 4 hrs
CIS/ECE 467 Digital Forensics II ............................ 4 hrs
ECE 426 Multimedia Forensics ............................... 3 hrs
ECE 427 Digital Content Protection ......................... 3 hrs

Computer Engineering

Computers and digital technology have dramatically altered many facets of life including entertainment, manufacturing, transportation, public safety and power production. Computer Engineers have many career opportunities in these areas that will only become more important and prevalent in the future. Most of the modern electronic devices and appliances available today contain advanced computer technology. Video game consoles, for example, utilize very powerful special-purpose computers that receive user input (from the joystick or controller), perform computations to control the game and display high-resolution graphics and sound in real time. Such devices require specialized digital circuits that can process massive amounts of data very efficiently. Computer engineers use their specialized knowledge to design a variety of systems that integrate how the hardware (electronic circuits and processors) interacts with the software such as C++ or Java to control the system and process inputs from the user. This type of close interaction between hardware and software is essential for many important applications, such as automotive systems, web and GPS-enabled devices, wireless communication, military applications, and medical imaging.

The Computer Engineering program at UM-Dearborn was developed to meet the increasing demand for engineers with knowledge of both hardware design and software development. The program offers a 125-hour curriculum consisting of core courses and technical electives. In addition to in-depth courses in engineering fundamentals, theory, and design principles, students get hands-on experience with the latest hardware and software, such as microprocessor and DSP-based development boards, system-on-a-chip technology, computer networks, and reconfigurable computing. In the senior year, students learn how to design and implement an instruction set and logic functions for a computer. In the senior year, students work on projects in which they design a complete real-world system, from initial specifications to final design, testing, and documentation. Students with an interest in pursuing graduate studies or wish to pursue a research and development career are encouraged to undertake directed research projects under the supervision of faculty advisors for more advanced design experiences.

A unique feature of the Computer Engineering program is the opportunity for students to work concurrently to earn a second degree in Electrical Engineering by taking an additional 16 credit hours of courses. In this case, a student can earn two Bachelor’s Degrees in just 141 credit hours. Since some job listings require a computer engineering background while others require specialization in electrical engineering, a student who pursues the dual degree option is qualified for a much wider variety of engineering positions.

The Computer Engineering Program at the University of Michigan-Dearborn is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.
Program Educational Objectives

The objectives of the BSE CE degree programs are to:

1. Graduate engineers, who have design skills, including the ability to formulate problems, design experiments, collect, analyze and interpret data; evaluate material, computational and personnel resources needed to solve typical problems, work in multidisciplinary teams, and communicate effectively.

2. Graduate engineers with the ability to pursue higher education as well as a research career in industry and/or academic institutions.

3. Graduate engineers who have interpersonal skills and an awareness of professional responsibility, ethics and the ability to engage in self-learning and life-long learning.

4. Graduate engineers who have the ability to meet the needs of the region, including automotive, information technologies, electronics, life sciences, power and defense related industries, consistent with the institution's mission.

Program Outcomes

The Computer Engineering program is designed to demonstrate that graduates of the program have:

- an ability to apply knowledge of mathematics, science, and engineering
- an ability to design and conduct experiments, as well as to analyze and interpret data
- an ability to design a system, component, or process to meet desired needs
- an ability to work cooperatively on multi-disciplinary projects
- an ability to identify, formulate, and solve engineering problems
- an understanding of professional and ethical responsibility
- proficiency in oral and written communications
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- a clear understanding that lifelong learning is essential for sustained professional development
- a knowledge of contemporary issues and its impact on the engineering profession
- an ability to apply knowledge of mathematics, science, and engineering to design circuits and systems to meet desired needs

CONCENTRATION REQUIREMENTS for Computer Engineering Programs

COMPUTER ENGINEERING PROGRAM FOR STUDENTS ADMITTED AS FRESHMEN (125 HOURS MINIMUM)

Humanities and Behavioral Sciences ............................................. 24 hrs

Basic Preparation for Engineering ........................................... 37 hrs
Chemistry I ........................................................................ 4 hrs
Calculus I, II, III ................................................................. 11 hrs
Differential Equations ......................................................... 3 hrs
Linear Algebra ...................................................................... 2 hrs
Discrete Mathematics .............................................................. 4 hrs
General Physics I, II ............................................................. 8 hrs
ENGR 100 Introduction to Engineering and Computers .......... 2 hrs
IMSE 317 Engineering Probability and Statistics ................. 3 hrs

Applied business course ............................................................ 3 hrs
ENGR 400 Applied Bus Techniques for Engr/CIS ................. 3 hrs

Core Courses ........................................................................ 48 hrs
ECE 210 Circuits ................................................................. 4 hrs
ECE 270 Computer Methods in ECE ................................. 4 hrs
ECE 273 Digital Systems ..................................................... 4 hrs
ECE 311 Electronics Circuits I ................................................ 4 hrs
ECE 370 Adv. Software Tech in CE .......................................... 4 hrs
ECE 372 Introduction to Microprocessors .............................. 4 hrs
ECE 375 Computer Architecture ............................................. 4 hrs
ECE 471 Computer Networks ................................................. 4 hrs
ECE 473 Embedded System Design ........................................ 4 hrs
ECE 475 Computer Hardware Org and Design ...................... 4 hrs
ECE 478 Operating Systems ................................................ 4 hrs
ECE 4982 Computer Engr Design I ......................................... 2 hrs
ECE 4984 Computer Engr Design II ......................................... 2 hrs

Professional Electives ............................................................. 6–8 hrs
choose two courses from the following list
ECE 3171 Analog & Discrete Sig & Sys .................................... 4 hrs
ECE 387 Digital Forensics I .................................................... 4 hrs
ECE 413 Introduction to VLSI Design ..................................... 3 hrs
ECE 428 Cloud Computing .................................................... 3 hrs
ECE 433 Intro to Multimedia Technologies ............................ 4 hrs
ECE 434 Machine Learning in Engineering ............................ 4 hrs
ECE 435 Intro to Mobil/Smart Dev & Tech ............................... 4 hrs
ECE 438 Web Engr: Prin & Tech ............................................ 4 hrs
ECE 467 Digital Forensics II ................................................. 4 hrs
ECE 4881 Intro to Robot Vision ............................................... 4 hrs

Approved Professional/Science Electives ............................... 5–7 hrs
Please contact the ECE Department for more information on approved electives.

Electrical Engineering

Electrical Engineering is the field that deals with the study and application of electricity, electronics and electromagnetism. An early application of the technology was energy conversion using motors and generators to convert one form of energy to another. As the technology advanced, devices that could amplify and process signals were developed which provided the foundation for modern electronics. Modern electronic devices can perform high-speed computations and process information in a wide variety of formats. Electronic devices have radically changed many aspects of daily life including high-definition television, video game consoles, digital cameras, satellite transmissions, GPS navigation, automotive entertainment systems, surround sound, mp3 players and advanced medical imaging systems. These technological advancements require high-speed electronic circuits that can receive, transmit and process electrical signals using circuits and devices developed by electrical engineers. They have the specialized knowledge required to design circuits and systems to perform a variety of functions, such as store electrical energy (batteries and power electronics), control of electric vehicles, transmit signals and information through wires (cable TV) or free space (TV, AM and FM radio, satellite, dish networks), provide automatic control of mechanical systems (cruise control, braking, target tracking and factory automation), enable communication between devices (internet, web, cell phones), process digital signals (microprocessors, digital signal processing algorithms and hardware), and ensure safety and performance of complex systems (electromagnetic compatibility).
A unique feature of the Electrical Engineering program is the opportunity for students to work concurrently to earn a second degree in Computer Engineering by taking an additional 16 credit hours of courses. In this case, a student can earn two Bachelor’s Degrees in just 141 credit hours. Some employment listings require a computer engineering background while others call for specialization in electrical engineering. A student who pursues the dual degree option is qualified for both types of positions and therefore has a distinct advantage in securing employment.

The Electrical Engineering Program at the University of Michigan-Dearborn is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

Program Educational Objectives

The objective of the BSE EE degree programs are to:

1. Graduate engineers, who have design skills, including the ability to formulate problems, design experiments, collect, analyze and interpret data; evaluate material, computational and personnel resources needed to solve typical problems, work in multidisciplinary teams, and communicate effectively.

2. Graduate engineers with the ability to pursue higher education as well as a research career in industry and/or academic institutions.

3. Graduate engineers who have interpersonal skills and an awareness of professional responsibility, ethics and the ability to engage in self-learning and life-long learning.

4. Graduate engineers who have the ability to meet the needs of the region, including automotive, information technologies, electronics, life sciences, power and defense related industries, consistent with the institution's mission.

Program Outcomes

The Electrical Engineering program is designed to demonstrate that graduates of the program have:

a. an ability to apply knowledge of mathematics, science, and engineering

b. an ability to design and conduct experiments, as well as to analyze and interpret data

c. an ability to design a system, component, or process to meet desired needs

d. an ability to work cooperatively on multi-disciplinary projects

e. an ability to identify, formulate, and solve engineering problems

f. an understanding of professional and ethical responsibility

g. proficiency in oral and written communications

h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context

i. a clear understanding that lifelong learning is essential for sustained professional development

j. a knowledge of contemporary issues and its impact on the engineering profession

k. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

CONCENTRATION REQUIREMENTS for Electrical Engineering Programs

ELECTRICAL ENGINEERING PROGRAM FOR STUDENTS ADMITTED AS FRESHMEN (125 HOURS MINIMUM)

Humanities and Behavioral Sciences ......................... 24 hrs

Basic Preparation for Engineering ............................ 36 hrs

Chemistry I ......................................................... 4 hrs
Calculus I, II, III .................................................. 11 hrs
Differential Equations .............................................. 3 hrs
Linear Algebra ...................................................... 2 hrs
General Physics I, II ................................................. 8 hrs
upper level physics ................................................. 3 hrs
ENGR 100 Introduction to Engineering and Computers ............ 2 hrs
IMSE 317 Engineering Probability and Statistics ............. 3 hrs

Applied business course .......................................... 3 hrs
ENGR 400 Applied Bus Techniques for Engr/CIS ............. 3 hrs

Core Courses ........................................................ 46 hrs

ECE 210 Circuits ..................................................... 4 hrs
ECE 270 Computer Methods in ECE ......................... 4 hrs
ECE 273 Digital Systems ............................................ 4 hrs
ECE 311 Electronics Circuits I ..................................... 4 hrs
ECE 3171 Analog & Discrete Sig & Sys ......................... 4 hrs
ECE 372 Introduction to Microprocessors ..................... 4 hrs
ECE 385 Electrical Materials and Devices ................... 3 hrs
ECE 450 Analog and Digital Communication Systems ........... 4 hrs
ECE 460 Automatic Control Systems ........................... 4 hrs
ECE 480 Introduction to Digital

Signal Processing ................................................. 4 hrs
ECE 4951 System Design with Microcontrollers ............. 3 hrs
ECE 4981 Electrical Engineering Design I .................... 2 hrs
ECE 4983 Electrical Engineering Design II .................... 2 hrs

Professional Electives ............................................. 7~8 hrs

choose two courses from the following list

ECE 319 Electromagnetic Compatibility: An Intro .......... 4 hrs
ECE 413 Introduction to VLSI Design ......................... 3 hrs
ECE 414 Electronic Systems Design ............................ 4 hrs
ECE 415 Power Electronics ....................................... 4 hrs
ECE 435 Intro to Mobit/Smart Dev & Tech ................. 4 hrs
ECE 4361 Electric Machines and Drive ........................ 4 hrs
ECE 443 Intro to Electrical Power Engineering ............. 4 hrs

Or
ECE 4432 Renewable Elec Power Sys ........................ 4 hrs
ECE 4881 Intro to Robot Vision .................................. 3 hrs

Approved Professional/Science Electives ..................... 8~9 hrs

Please contact the ECE Department for more information on approved electives.

Dual Degree in EE or CE

Students must take 16 hours beyond the 125 hours needed for the EE/CE degree for a total of 141 hours. For a second degree in EE, CE students should take ECE 3171, 385, 450, 460, 480, and one of the following: ECE 414 or ECE 415. For a second degree in CE, EE students should take ECE 276, 375, 471, 473, 475, ECE 478. These required courses can be taken by choosing an appropriate set of elective and the 16 credit hours required by the dual degree program.
Industrial and Systems Engineering

Industrial and systems engineering is concerned with the study and design of integrated systems of people, materials, equipment and their interaction with the surrounding environment. Historically, this field developed in the manufacturing industries where industrial engineers applied their engineering knowledge and management techniques to design and efficiently operate industrial and business systems. But the advent of the modern information technology enabled industrial engineers to apply their quantitative methods and organizational skills to a multitude of large-scale systems in addition to industrial systems. Today, industrial and systems engineers are being called upon, with increasing frequency, to design and improve the performance of systems in a wide spectrum of fields such as the service, energy, transportation, finance, and health care. Thus, their scope is not limited to tackling industrial problems alone, but extends to finding solutions for the endless variety of problems of modern industrial society.

The field of study bridges engineering knowledge, management principles, physical and social sciences, and the life sciences. Simply put, it stresses the scientific and technological approach to the design, development, and the optimal operation of both large-scale and small-scale systems. The industrial and systems engineer is a versatile expert whose talents are vigorously sought, and will be for a long time to come, by various sectors of society.

Undergraduate Degree Program

The undergraduate program in industrial and systems engineering provides first a strong basis in the foundations of engineering: natural and physical sciences, mathematics, socioeconomic-cultural background, the behavioral sciences and the basic engineering sciences which begin the emphasis on problem solving. Then, the program develops the intermediate bases on which industrial systems and other systems engineering work is founded. This includes studies in production and operations management, lean concepts, quality engineering methods system modeling, simulation and optimization, organization and decision theory, and human factors engineering. Contemporary operations research methods are progressively developed and applied through systems-design case studies ending with a capstone design experience.

The undergraduate degree program in Industrial and Systems Engineering is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

An unusual opportunity is available to obtain considerable practical expertise in the student’s specialty for those who elect the internship option.

Students who do well in their undergraduate program are encouraged to consider graduate work and may take some of their electives in preparation for graduate study. Information and assistance regarding fellowships and assistantships for graduate study may be obtained from the Dean, College of Engineering and Computer Science, or from the department chairperson.

Educational Objectives of the BSE (Industrial and Systems Engineering) Program

Consistent with providing a strong academic foundation in the field of Industrial and Systems Engineering, the program educational objectives for our graduates are:

1. To remain gainfully employed in Industrial and Systems Engineering related fields,
2. To continue develop professionally, and
3. To serve in leadership roles.

Program Outcomes

To achieve the educational objectives, the graduates of the program will have:

a. an ability to apply knowledge of mathematics, sciences and engineering
b. an ability to design and conduct experiments, as well as to analyze and interpret data
c. an ability to design a system, component or process to meet desired needs
d. an ability to function on multidisciplinary teams
e. an ability to identify, formulate and solve engineering problems
f. an understanding of professional and ethical responsibility
g. an ability to communicate effectively
h. the broad education necessary to understand the impact of engineering solutions in a global and society context
i. a recognition of the need for, and an ability to, engage in lifelong learning and graduate studies
j. a knowledge of contemporary issues
k. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

CONCENTRATION REQUIREMENTS

A candidate for the degree Bachelor of Science in Engineering (Industrial and Systems Engineering) is required to pursue scholastic and to complete satisfactorily the following program of study:

Industrial and Systems Engineering Program for Students Admitted as Freshmen (128 hours minimum)*

*Information for students planning to transfer to UM-Dearborn from community colleges or from four-year colleges and universities is given under Admission Information in the General Information section and under Undergraduate Requirements in the Engineering section of this Catalog.

Humanities and Behavioral and Social Sciences

Courses that satisfy the UM-Dearborn Campus Distribution Requirement and ABET requirements for engineering students, additional electives in the humanities, behavioral sciences, and social sciences, including composition courses.................. 24 hrs

Basic Requirements.................. 36 hrs

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 100</td>
<td>Introduction to Engineering</td>
<td>2 hrs</td>
</tr>
<tr>
<td>ENGR 126</td>
<td>Engineering Computer Graphics</td>
<td>2 hrs</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>4 hrs</td>
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<tr>
<td>MATH 116</td>
<td>Calculus II</td>
<td>4 hrs</td>
</tr>
<tr>
<td>MATH 205</td>
<td>Calculus III for Engineers</td>
<td>3 hrs</td>
</tr>
<tr>
<td>MATH 216</td>
<td>Differential Equations</td>
<td>3 hrs</td>
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<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Credits</td>
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<tr>
<td>MATH 217</td>
<td>Matrix Algebra</td>
<td>2 hrs</td>
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<tr>
<td>CHEM 144</td>
<td>General Chemistry IB</td>
<td>4 hrs</td>
</tr>
<tr>
<td>CHEM 146</td>
<td>General Chemistry IIB</td>
<td>4 hrs</td>
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<tr>
<td>OR</td>
<td>BIOL 103 Anatomy and Physiology I</td>
<td>4 hrs</td>
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<tr>
<td>PHYS 150</td>
<td>General Physics I</td>
<td>4 hrs</td>
</tr>
<tr>
<td>PHYS 151</td>
<td>General Physics II</td>
<td>4 hrs</td>
</tr>
<tr>
<td>Programming and Core Engineering</td>
<td>14 hrs</td>
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</tr>
<tr>
<td>IMSE 255</td>
<td>Computer Programming for Engineers</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENGR 250</td>
<td>Principles of Engineering of Materials</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ECE 305</td>
<td>Introduction to Electrical Engineering</td>
<td>4 hrs</td>
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<tr>
<td>ME 265</td>
<td>Applied Mechanics</td>
<td>4 hrs</td>
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<tr>
<td>OR</td>
<td>ME 260 Design Stress Analysis</td>
<td>4 hrs</td>
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**Professional Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSE 3005</td>
<td>Introduction to Operations Research</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 317</td>
<td>Engineering Probability and Statistics</td>
<td>3 hrs</td>
</tr>
<tr>
<td>IMSE 382</td>
<td>Manufacturing Processes</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 421</td>
<td>Engineering Economy and Decision Analysis</td>
<td>3 hrs</td>
</tr>
<tr>
<td>IMSE 4425</td>
<td>Human Factors and Ergonomics</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4545</td>
<td>Information Systems Design</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4585</td>
<td>Simulation in Systems Design</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4675</td>
<td>Six Sigma and Statistical Process Improvement</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4795</td>
<td>Production, Inventory Control, and Lean Mfg.</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4951</td>
<td>Design Project I</td>
<td>2 hrs</td>
</tr>
<tr>
<td>IMSE 4952</td>
<td>Design Project II</td>
<td>2 hrs</td>
</tr>
<tr>
<td>ENGR 400</td>
<td>Applied Business Techniques for Engineers and Computer Scientists</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Electives**

Choose 3 to 4 courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSE 351</td>
<td>Data Structures and File Processing</td>
<td>3 hrs</td>
</tr>
<tr>
<td>IMSE 381</td>
<td>Industrial Robots</td>
<td>3 hrs</td>
</tr>
<tr>
<td>IMSE 453</td>
<td>Data Communications/Distributed Processing</td>
<td>3 hrs</td>
</tr>
<tr>
<td>IMSE 456</td>
<td>Introduction to Data Base Systems</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4745</td>
<td>Facilities Design</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4815</td>
<td>Manufacturing Processes II</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4825</td>
<td>Control, Instrumentation, and Metrology</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 4835</td>
<td>Computer-Aided Process Design and Mfg</td>
<td>4 hrs</td>
</tr>
<tr>
<td>IMSE 486</td>
<td>Design for Manufacturing and Assembly</td>
<td>3 hrs</td>
</tr>
<tr>
<td>OB 354</td>
<td>Behavior in Organization</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ACC 297</td>
<td>Financial Accounting Concepts</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ACC 298</td>
<td>Financial Accounting</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ACC 299</td>
<td>Managerial Accounting</td>
<td>3 hrs</td>
</tr>
<tr>
<td>OB 401</td>
<td>Managerial Skills Development</td>
<td>3 hrs</td>
</tr>
<tr>
<td>OB 402</td>
<td>Organizational Change and Development</td>
<td>3 hrs</td>
</tr>
<tr>
<td>LE 452</td>
<td>The Legal Environment for Business</td>
<td>3 hrs</td>
</tr>
<tr>
<td>ENT 400</td>
<td>Introduction to Entrepreneur</td>
<td>3 hrs</td>
</tr>
<tr>
<td>HRM 405</td>
<td>Human Resource Policy/Administration</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

**Free Electives**

1-3 hrs

**Dual Degree in Manufacturing Engineering**

Students must take at least 15 credits beyond the 128 credits needed for the Manufacturing Engineering degree, including ME 230, IMSE 4815, IMSE 4825, and IMSE 4835 from the courses listed in the Manufacturing Engineering curriculum.

**Manufacturing Engineering**

Manufacturing Engineering is concerned with designing, building, planning, operating, and managing economical production systems for discrete manufacturing. Manufacturing engineers need to have a thorough knowledge of materials and manufacturing processes. They should also be able to design, operate and manage integrated systems that include people, materials, machine tools, material handling equipment, robots, quality measuring equipment, controls and computers.

Traditionally, there has been a strong division between manufacturing engineering and design engineering. Today, however, the boundary between these two functions is narrowing. Both groups work together in teams to assure soundness of design and manufacturability of the product. Manufacturing engineers must understand engineering materials and design besides having expertise in manufacturing tooling and processes, systems and technology. They design and evaluate the capabilities of manufacturing tools and processes, and interact with design engineers during the development of product specifications and tolerances.

Today’s manufacturing equipment is becoming increasingly computer-based. Manufacturing engineers must have a working knowledge of programmable equipment, as well as its interfaces with control hardware. They must understand the multi-layered control architecture of the integrated factory, and the computer-based technologies that enable it.

**UNDERGRADUATE DEGREE PROGRAM**

The undergraduate program in manufacturing engineering provides first a strong foundation in all of the basic ingredients of engineering: the natural and physical sciences, mathematics, socioeconomic-cultural background, the behavioral sciences and finally the basic engineering sciences that begin the development of problem-solving skills. Then, the program develops intermediate bases on which manufacturing engineering and systems are founded. This includes studies in engineering materials, manufacturing processes, probability and statistics, electronics, computers, human factors/ergonomics and operations research. The program then provides for the detailed study of several advanced topics related to process, assembly, and product engineering; manufacturing productivity and quality; and manufacturing integration methods and system design. Excellent laboratory facilities are available for students to conduct experiments and measure process variables.

Finally, students are required to complete a project dealing with the design of a production system to manufacture a product. The student has to address issues related to technological cost, aesthetics, feasibility, reliability, safety and ethics wherever applicable.

The degree program is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

An unusual opportunity is available to obtain considerable practical experience in manufacturing industries for those who elect the internship option.

Students who do well in their undergraduate program are encouraged to consider graduate work. Information and assistance regarding fellowships and assistantships for graduate studies may be obtained from the Dean, College of Engineering and Computer Science, or from the department chairperson.
Educational Objectives of the BSE (Manufacturing Engineering) Program

Consistent with providing a strong academic foundation in the field of Manufacturing Engineering, the program educational objectives for our graduates are:

- To remain gainfully employed in Manufacturing Engineering related fields,
- To continue develop professionally, and
- To serve in leadership roles.

PROGRAM OUTCOMES

To achieve the educational objectives, the graduates of the program will have:

a. an ability to apply knowledge of mathematics, sciences and engineering
b. an ability to design and conduct experiments, as well as to analyze and interpret data
c. an ability to design a system, component, or process to meet desired needs
d. an ability to function on multidisciplinary teams
e. an ability to identify, formulate and solve engineering problems
f. an understanding of professional and ethical responsibility
g. an ability to communicate effectively
h. the broad education necessary to understand the impact of engineering solutions in a global and society context
i. a recognition of the need for, and an ability to, engage in lifelong learning and graduate studies
j. a knowledge of contemporary issues
k. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

CONCENTRATION REQUIREMENTS

A candidate for the degree Bachelor of Science in Engineering (Manufacturing Engineering) is required to pursue scholastic quality and to complete satisfactorily the following program of study:

Manufacturing Engineering Program for Students Admitted as Freshmen (128 hours minimum)*

*Information for students planning to transfer to UM-Dearborn from community colleges or from four-year colleges and universities is given under Admission Information in the General Information section and under Undergraduate Requirements in the Engineering section of this Catalog.

Humanities and Behavioral and Social Sciences

Courses that satisfy the UM-Dearborn Campus Distribution Requirement and ABET requirements for engineering students, additional electives in the humanities, behavioral sciences, and social sciences, including composition courses 24 hrs

Basic Requirements for Engineering ............................. 36 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 100</td>
<td>Introduction to Engineering &amp; Computers</td>
<td>2</td>
</tr>
<tr>
<td>ENGR 126</td>
<td>Engineering Computer Graphics</td>
<td>2</td>
</tr>
<tr>
<td>MATH 115</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MATH 116</td>
<td>Calculus II</td>
<td>4</td>
</tr>
<tr>
<td>MATH 205</td>
<td>Calculus III for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>MATH 216</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>MATH 217</td>
<td>Matrix Algebra</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 144</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 146</td>
<td>General Chemistry IIB</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 150</td>
<td>General Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 151</td>
<td>General Physics II</td>
<td>4</td>
</tr>
</tbody>
</table>

Programming and Core Engineering .......................... 18 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSE 255</td>
<td>Computer Programming for Engineers</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 250</td>
<td>Principles of Engineering Materials</td>
<td>3</td>
</tr>
<tr>
<td>ME 230</td>
<td>Thermodynamics</td>
<td>4</td>
</tr>
<tr>
<td>ME 260</td>
<td>Design Stress Analysis</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td>Applied Mechanics</td>
<td>4</td>
</tr>
<tr>
<td>ECE 305</td>
<td>Introduction to Electrical Engineering</td>
<td>4</td>
</tr>
</tbody>
</table>

Professional Requirements .................................. 45 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSE 3005</td>
<td>Introduction to Operations Research</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 317</td>
<td>Engineering Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>IMSE 382</td>
<td>Manufacturing Processes</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 421</td>
<td>Engineering Economy and Decision Analysis</td>
<td>3</td>
</tr>
<tr>
<td>IMSE 4425</td>
<td>Human Factors and Ergonomics</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4675</td>
<td>Six Sigma and Statistical Process Improvement</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4795</td>
<td>Production, Inventory Control, and Lean Mfg</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4815</td>
<td>Manufacturing Processes II</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4825</td>
<td>Control, Instrumentation, and Metrology</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4835</td>
<td>Computer-Aided Process</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4951</td>
<td>Design Project I</td>
<td>2</td>
</tr>
<tr>
<td>IMSE 4952</td>
<td>Design Project II</td>
<td>2</td>
</tr>
<tr>
<td>ENGR 400</td>
<td>Business Methods for Engineers</td>
<td>3</td>
</tr>
</tbody>
</table>

Technical Electives from the following .................... 3 hrs

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSE 351</td>
<td>Data Structures and File Processing</td>
<td>3</td>
</tr>
<tr>
<td>IMSE 381</td>
<td>Industrial Robots</td>
<td>3</td>
</tr>
<tr>
<td>IMSE 4545</td>
<td>Information Systems Design</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4585</td>
<td>Simulation in System Design</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 4745</td>
<td>Facilities Design</td>
<td>4</td>
</tr>
<tr>
<td>IMSE 486</td>
<td>Design for Assembly and Manufacturing</td>
<td>3</td>
</tr>
<tr>
<td>IMSE 488</td>
<td>Metal Forming Processes</td>
<td>3</td>
</tr>
<tr>
<td>ME 484</td>
<td>Manufacturing Polymeric Composite Materials</td>
<td>3</td>
</tr>
</tbody>
</table>

General Electives .............................................. 1-2 hrs

Dual Degree in Industrial and Systems Engineering

Students must take at least 15 hours beyond the 128 hours needed for the Manufacturing Engineering degree including IMSE 4545 and IMSE 4585 from the courses listed in the I&SE curriculum.

Mechanical Engineering

The mechanical engineering field is one of the oldest of the several engineering fields. It is also one of the broadest in scope, for it is not identified with nor restricted to any particular technology (like nuclear engineering), nor to any particular vehicle (like land-based automobiles), nor to any particular device or particular system. It is, in fact, concerned with so many areas of modern technology that the tasks and challenges of the mechanical engineer are most interesting and varied.

The field is logically associated with mechanical things, but this can lead to a restrictive image. For example, one often associates
organize thinking of the multitude of factors on which every design is based - performance, efficiency, esthetics, cost, reliability, safety, reparability, etc. - and to reach sound conclusions that the student must be prepared to defend and implement. This is the art of engineering, and its study permeates the courses and laboratories of the upper-level instruction in this field.

For those who choose the cooperative education option, it is possible to develop a more thorough understanding of how design factors are considered and how decisions are implemented in industrial organizations.

The undergraduate degree program in Mechanical Engineering is accredited by the Engineering Accreditation Commission of ABET (the Accreditation Board for Engineering and Technology), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 – telephone: (410) 347-7700.

Students who do well in their undergraduate program are encouraged to consider graduate work and may take some of their electives in preparation for graduate study. Information and assistance regarding fellowships and assistantships for graduate study may be obtained from the Dean, College of Engineering and Computer Science, or from the department chairperson.

PROGRAM EDUCATIONAL OBJECTIVES

The Program Educational Objectives for the Bachelor of Science in Engineering in Bioengineering are:

1. Our graduates will be successfully employed in engineering or other related industries and will advance in their professional fields.
2. Our graduates will possess adequate technical skills and knowledge for identifying, formulating and developing innovative solutions to mechanical engineering problems using modern engineering techniques and tools.
3. Our graduates will engage in life-long learning through graduate studies and/or professional development activities.
4. Our graduates will effectively communicate technical information and apply mechanical engineering solutions with strong social and ethical responsibility.

To achieve the educational objectives, the graduates of the program will have:

a. an ability to apply knowledge of mathematics, sciences and engineering.

b. an ability to design and conduct experiments, as well as to analyze and interpret data.

c. an ability to specify, model, and design a system, component or process to meet desired needs.

d. an ability to function on multidisciplinary teams.

e. an ability to identify, formulate and solve engineering problems.

f. an understanding of professional and ethical responsibility.

g. an ability to communicate effectively.

h. the broad education necessary to understand the impact of engineering solutions in a global and societal context, including environmental and economical impacts.

i. a recognition of the need for, and an ability to, engage in life-long learning.

j. a knowledge of contemporary issues.
k. an ability to use the techniques, skills and modern engineering tools, such as information technology, which are necessary for engineering practice.

CONCENTRATION REQUIREMENTS

A candidate for the degree Bachelor of Science in Engineering (Mechanical Engineering) is required to pursue scholastic quality and to complete satisfactorily the following program of study:

Mechanical Engineering Program for Students Admitted as Freshmen (128 hours)*

*Information for students planning to transfer to UM-Dearborn from community colleges or from four-year colleges and universities is given under Admission Information in the General Information section and under Undergraduate Requirements in the Engineering section of this Catalog.

A candidate for the degree BSE degree in Mechanical Engineering is required to pursue scholastic quality and to complete satisfactorily the following program of study.

Humanities and Behavioral and Social Sciences

Courses that satisfy the UM-Dearborn Campus Distribution and ABET requirements for Engineering students, additional electives in the humanities, behavioral sciences, and social sciences, including composition*. .................................................. 24 hrs

*Specific information can be obtained from the program advisor.

Basic Preparation for Engineering………………..49 hrs
Chemistry 144, 146 ........................................ 8 hrs
Calculus I, II, III ...................................... 11 hrs
Differential Equations .................................. 3 hrs
Linear Algebra & Matrices ........................... 2 hrs
General Physics I, II ...................................... 8 hrs
ENGR 100 Introduction to Engineering .......... 2 hrs
ENGR 126 Engineering Computer Graphics .... 2 hrs
ENGR 216 Computer Methods for Engineers ... 2 hrs
ENGR 250 Principles of Engineering Material ... 3 hrs
ME 230 Thermodynamics .......................... 4 hrs
ME 260 Design Stress Analysis .................... 4 hrs

Professional Subjects and Program Electives……..37 hrs
ME 325 Thermal Fluid Sciences I ................. 4 hrs
ME 345 Engineering Dynamics .................... 4 hrs
ME 349 Instrumentation Measurement Systems 3 hrs
ME 3601 Design and Analysis of Machine Elements 4 hrs
ME 364 Probability, Statistics and Reliability in Machine Design 3 hrs
ME 375 Thermal Fluid Sciences II ............... 4 hrs
ME 379 Thermal Fluid Laboratory ............... 3 hrs
ME 381 Manufacturing Processes I ............... 4 hrs
ME 442 Control Systems Analysis and Design ... 4 hrs
ECE 305 Introduction Electrical Engineering .... 4 hrs

Senior Design Project ................................ 8 hrs
ME 4671 Senior Design Project .................. 4 hrs
ME Design Electives ................................. 4 hrs

Upper-Level Tech Electives .......................... 6 hrs

General Electives ..................................... 4 hrs

Total 128 hrs

Bioengineering

Bioengineering is an emerging branch of engineering that primarily deals with problems of medicine, healthcare, and—in genera—quality of human life. It is a multidisciplinary field that combines scientific principles of biology, chemistry, physics, and mathematics with the best engineering techniques developed in traditional areas (for example, mechanical, electrical, chemical, and computer engineering) and new breakthrough methods developed in recent years.

Activities of bioengineers are widely spread. They use their knowledge to design and build medical instruments, artificial organs, prosthetic limbs, therapeutic devices, and medical imaging equipment. They help doctors to design new medical procedures, including new rehabilitation techniques. They also assist pharmaceutical and biotechnology industries in developing new, more efficient bioprocessing technologies. Finally, they find solutions for medical and biology-related problems of consumer technology in the areas of safety, ergonomics, and comfort.

Bioengineering is a rapidly growing profession with expanding career opportunities. By virtue of their vigorous cross-training, bioengineers are well-poised for careers in healthcare, medical device production, pharmaceutical industries, and consulting in health-related fields, as well as other positions in industry, education, and government.

UNDERGRADUATE DEGREE PROGRAM

The undergraduate program in bioengineering provides first a strong foundation in all of the basic ingredients of engineering: the natural and physical sciences, mathematics, a comprehensive socio-economic-cultural background, the behavioral sciences, and finally the basic engineering sciences that begin the development of problem-solving skills.

The program integrates natural sciences with engineering analysis and design concepts to advance the fundamental understanding of biological systems and to develop biology-based technologies with applications across a wide spectrum of societal needs. The bioengineering curriculum is designed to cater to students looking to enter the professional world immediately after earning their undergraduate degree, as well as those who are interested in pursuing graduate studies and research. Various fundamental, design, and application oriented courses (e.g. Biomaterials, Biomechanics, Bioinstrumentation, Biotransport, and Bioprocesses) fulfill industrial needs and help students to perform well in biotech, pharmaceutical, and healthcare industries as engineering professionals. At the same time, the exposure to advanced courses and cross-cutting, state-of-the-art research experiences provide a solid foundation to continue graduate studies and emerge as leaders in science and engineering.

PROGRAM EDUCATIONAL OBJECTIVES

The Program Educational Objectives for the Bachelor of Science in Engineering in Bioengineering are:

1. Our graduates will be successfully employed in engineering or other related industries and will advance in their professional fields.
2. Our graduates will possess adequate technical skills and knowledge for identifying, formulating and developing
innovative solutions to bioengineering problems using modern engineering techniques and tools.

3. Our graduates will engage in life-long learning through graduate studies and/or professional development activities.

4. Our graduates will effectively communicate technical information and apply bioengineering solutions with strong social and ethical responsibility.

To achieve the educational objectives, the graduates of the program will have:

a. an ability to apply knowledge of mathematics, sciences and engineering.

b. an ability to design and conduct experiments, as well as to analyze and interpret data.

c. an ability to specify, model, and design a system, component or process to meet desired needs.

d. an ability to function on multidisciplinary teams.

e. an ability to identify, formulate and solve engineering problems.

f. an understanding of professional and ethical responsibility.

g. an ability to communicate effectively.

h. the broad education necessary to understand the impact of engineering solutions in a global and societal context, including environmental and economical impacts.

i. a recognition of the need for, and an ability to, engage in life-long learning.

j. a knowledge of contemporary issues.

k. an ability to use the techniques, skills and modern engineering tools, such as information technology, which are necessary for engineering practice.

CONCENTRATION REQUIREMENTS

A candidate for the degree Bachelor of Science in Engineering (Bioengineering) is required to pursue scholastic quality and to complete satisfactorily the following program of study:

Bioengineering Program for Students Admitted as Freshmen (128 hours)*

*Information for students planning to transfer to UM-Dearborn from community colleges or from four-year colleges and universities is given under Admission Information in the General Information section and under Undergraduate Requirements in the Engineering section of this Catalog.

A candidate for the degree BSE degree in Bioengineering is required to pursue scholastic quality and to complete satisfactorily the following program of study.

Humanities and Behavioral and Social Sciences

Courses that satisfy the UM-Dearborn Campus Distribution and ABET requirements for Engineering students, additional electives in the humanities, behavioral sciences, and social sciences, including composition* ......................... 21 hrs

*Specific information can be obtained from the program advisor.

Basic Preparation for Engineering ........................................... 61 hrs

Chemistry 134, 136 ........................................ 8 hrs

Calculus I, II, III ................................................. 11 hrs

Differential Equations ................................................. 3 hrs

Linear Algebra & Matrices .................................................. 2 hrs

BIO 103 Anatomy and Physiology ......................... 4 hrs

BIO 140 Molecular and Cellular Biology ....................... 4 hrs

General Physics I, II ........................................... 8 hrs

ENGR 100 Introduction to Engineering ..................... 2 hrs

ENGR 126 Engineering Computer Graphics ................. 2 hrs

ENGR 216 Computer Methods for Engineers .............. 2 hrs

ENGR 250 Principles of Engineering Material ............ 3 hrs

ME 230 Thermodynamics ......................................... 4 hrs

ME 265 Engineering Mechanics ............................... 4 hrs

ECE 305 Introduction Electrical Engineering ............. 4 hrs

Professional Subjects and Program Electives ............. 46 hrs

BENG 325 Thermal Fluid Sciences for Bioengineering ... 4 hrs

BENG 351 Bio-Sensors and Instrumentation ................ 4 hrs

BENG 370 Biomechanics I ....................................... 4 hrs

BENG 364 Probability & Statistics in Bioengineering .... 3 hrs

BENG 375 Biomaterials and Tissue Engineering .......... 3 hrs

BENG 381 Bioprocessing ........................................ 3 hrs

BENG 4671 Senior Design Project ............................... 4 hrs

Choose One Track: Bioengineering or Pre-Medical.... 21 hrs

Bioengineering Track (21 credits)

21 credits of Design or Upper-Level Tech Elective courses from courses below. At least one course must be a Design Course (3 or 4 credits)

ONE DESIGN COURSE ............................................. (3 or 4) – from list

BENG 410 (3) Bioinformatics

BENG 425 (3) Transport in Biosystems

BENG 470 (3) Biomechanics II

ENGR 450 (3) Nanosystems & MEMS in Medicine

IMSE 4675 (4) Six Sigma & Statistical Process Improvement

IMSE 4425 (4) Human Factors Ergonomics

ME 3601 (4) Design & Analysis of Machine Elements

UPPER-LEVEL TECH ELECTIVES

BENG 420 (3) Medical Imaging

BENG 449 (3) Controls & Microprocessors

BENG 464 (3) Biostat and Exp. Design

CHEM 490E (3) Nano-biotechnology

CHEM 395 (3) Molecular Nanotechnology

ENGR 350 (4) Nanotechnology

ME 410 (3) Finite Element Method

ME 442 (4) Control Systems Analysis

IMSE 421 (3) Engin Econ/Decision Analysis

IMSE 381 (3) Industrial Robotics

PRE-MEDICAL TRACK ............................................. (21 credits)

ONE DESIGN COURSE ............................................. (3 or 4) – list above

UPPER-LEVEL TECH ELECTIVES (6-7)

2 Design or Technical courses from lists above

PRE-MED COURSES (11 credits)

The following four courses (11 credits):

CHEM 225 (3) Organic Chemistry I

CHEM 226 (3) Organic Chemistry II

CHEM 227 (2) Organic Chemistry Lab

BCHM 370 (3) Principles of Biochemistry

ADDITIONAL COURSES ARE RECOMMENDED FOR PRE-MEDICAL STUDENTS PREPARING FOR MEDICAL SCHOOL

ADMISSION – CONSULT THE PRE-MED ADVISOR

Total ......................................................... 128 hrs
Engineering Mathematics
(Concurrent Degree)

The program in engineering mathematics at UM-Dearborn provides the student with an opportunity to extend his/her knowledge of the language of the scientist and to become more proficient in the application of mathematical reasoning to the formulation and solution of scientific problems in engineering. This program recognizes the ever-increasing demand that the changing physical and economic world imposes on the engineering profession. This program seeks to make available to the students the knowledge with which they will be better able to understand and to create the complex mathematical models that represent the world.

A current CECS undergraduate student majoring in Computer Engineering, Electrical Engineering, Industrial and Systems Engineering, Manufacturing Engineering, or Mechanical Engineering may pursue a concurrent Bachelor of Science in Engineering (BSE) degree in Engineering Mathematics. This makes it possible for an engineering student to earn two degrees at the same time: a BSE degree in Engineering Mathematics and a BSE degree in their principal engineering major. Both degrees must be earned at the same time.

The Engineering Mathematics degree requires a minimum of 14 credit hours of course work in advanced mathematics beyond the 16 credits of mathematics already required in the degree program of the student’s principal engineering major. Approved courses for the BSE in Engineering Mathematics concurrent degree include:

- MATH 404 Dynamical Systems .......................... 3 hrs
- MATH 405 Integral Equations ......................... 3 hrs
- MATH 412 First Course in Modern Algebra ........ 3 hrs
- MATH 413 Linear Algebra* ............................. 3 hrs
- MATH 420 Stochastic Processes** ...................... 3 hrs
- MATH 425 Mathematical Statistics II ............... 3 hrs
- MATH 451 Advanced Calculus I ....................... 3 hrs
- MATH 452 Advanced Calculus II ..................... 3 hrs
- MATH 454 Fourier Series and Boundary Value Problems .................................................. 3 hrs
- MATH 462 Mathematical Modeling ................... 3 hrs
- MATH 472 Introduction to Numerical Analysis .... 3 hrs
- MATH 473 Matrix Computation ...................... 3 hrs
- MATH 513 Linear Algebra with Applications .......... 3 hrs
- MATH 555 Functions of a Complex Variable with Applications ............................................. 3 hrs

*Note: Credit for only one from MATH 413 and MATH 513.
**Note: Credit for only one from MATH 413 and MATH 513.
***Prior approval needed
****Note: Calculus III is required for the SE degree and for the CIS-CS option degree; it must also be taken by CIS-IS option students as part of the requirements for the concurrent BS degree in CIS Mathematics.

A minimum of ten credits from the following courses:

- MATH 315 Applied Combinatorics ..................... 3 hrs
- MATH 372 Computing with Mathematica ............... 3 hrs
- MATH 390 Topics in Mathematics* .................... 1-3 hrs
- MATH 395 Elementary Number Theory ................ 3 hrs
- MATH 404 Dynamical Systems ....................... 3 hrs
- MATH 405 Integral Equations ....................... 3 hrs
- MATH 412 First Course in Modern Algebra .......... 3 hrs
- MATH 413 Linear Algebra* ............................. 3 hrs
- MATH 420 Stochastic Processes** ...................... 3 hrs
- MATH 425 Mathematical Statistics II ............... 3 hrs
- MATH 451 Advanced Calculus I ....................... 3 hrs
- MATH 452 Advanced Calculus II ..................... 3 hrs
- MATH 454 Fourier Series and Boundary Value Problems .................................................. 3 hrs
- MATH 455 Functions of a Complex Variable with Applications ............................................. 3 hrs

*Prior approval needed
**Credit for only one from MATH 413, MATH 513, MATH 523
***Credit for only one from MATH 420, IMSE 506.
****Credit for only one from MATH 455, MATH 555.

The following CECS graduate courses may also be used towards the Engineering Mathematics degree: ECE 555, 560, 567, 580; IMSE 505, 506, 510, 511; ME 518, 519, provided that:

CIS Mathematics
(Concurrent Degree)

Current CECS undergraduate students majoring in Computer and Information Science (CIS), Digital Forensics, or Software Engineering (SE) may pursue a concurrent Bachelor of Science (BS) degree in CIS Mathematics. This makes it possible for CECS students to earn two degrees at the same time: a principal BS degree in CIS, DF, or in SE and a separate concurrent BS degree in CIS Mathematics. Both degrees must be earned at the same time. The courses for the concurrent BS degree in CIS cannot be used as elective credits for the principal degree, but must be taken in addition to the 120-123 credits required for the BS degree in CIS, the BS degree in DF, or the BS degree in SE.

The BS in CIS Mathematics degree requires a minimum of thirty credits in mathematics courses, as follows:

Fourteen credits of mathematics courses required for the BS degree in CIS, DF or in SE*:

- MATH 115 Calculus I ....................................... 4 hrs
- MATH 116 Calculus II ...................................... 4 hrs
- MATH 217 Introduction to Matrix Algebra ............ 2 hrs
- MATH 227 Introduction to Linear Algebra ............. 3 hrs
- CIS 275 Discrete Structures ............................. 4 hrs

*Note: Students may elect MATH 227 instead of MATH 217 but only 14 credits from the courses above will count toward the degree.

Six credits from the following two courses*:

- MATH 205 Calculus III for Engineering Students ... 3 hrs
- MATH 215 Calculus III** .................................. 4 hrs
- MATH 216 Differential Equations ...................... 3 hrs

*Note: Students may elect MATH 215 instead of MATH 205 but only 6 credits from the courses above will count toward the degree.

A minimum of ten credits from the following courses:

- MATH 315 Applied Combinatorics ..................... 3 hrs
- MATH 372 Computing with Mathematica ............... 3 hrs
- MATH 390 Topics in Mathematics* .................... 1-3 hrs
- MATH 395 Elementary Number Theory ................ 3 hrs
- MATH 404 Dynamical Systems ....................... 3 hrs
- MATH 405 Integral Equations ....................... 3 hrs
- MATH 412 First Course in Modern Algebra .......... 3 hrs
- MATH 413 Linear Algebra* ............................. 3 hrs
- MATH 420 Stochastic Processes** ...................... 3 hrs
- MATH 425 Mathematical Statistics II ............... 3 hrs
- MATH 451 Advanced Calculus I ....................... 3 hrs
- MATH 452 Advanced Calculus II ..................... 3 hrs
- MATH 454 Fourier Series and Boundary Value Problems .................................................. 3 hrs
- MATH 455 Functions of a Complex Variable with Applications ............................................. 3 hrs

*Prior approval needed
**Credit for only one from MATH 413, MATH 513, MATH 523
***Credit for only one from MATH 420, IMSE 506.
****Credit for only one from MATH 455, MATH 555.

The following CECS graduate courses may also be used towards the CIS Mathematics degree: CIS 451, 532, 551, 552; ECE 555, 560, 567, 580; IMSE 505, 506, 510, 511; ME 518, 519, provided that:
a. a minimum of nine hours is taken from the Mathematics department (MATH) courses in list C above, and
b. permission to take a graduate course is granted.

Other Programs

Graduate Programs
A Master of Science in Engineering (MSE) degree is offered in automotive systems, computer engineering, electrical engineering, energy systems, industrial and systems, manufacturing systems, and mechanical engineering. A Master of Science (MS) degree is offered in computer and information science, engineering management, information systems and technology, program and project management, and software engineering. Also, a MSE/MBA offered jointly with Industrial and Manufacturing Systems and the College of Business. See the UM-Dearborn Graduate Catalog for admission requirements and complete program and course descriptions.

Changes in Policies and Rules
The College of Engineering and Computer Science reserves the right to effect changes in curricula, policies, and rules. Students should consult with the CECS Records and Advising Office (2000 Heinz Prechter Engineering Complex) for the applicable rules at the time of admission.

Course Offerings
A brief description of each course offered by the College of Engineering and Computer Science may be found in the following list. Other courses are described in the College of Arts, Sciences, and Letters and College of Business sections of this Catalog.

Bioengineering (BENG)

COURSE OFFERINGS

BENG 325 Thermofluid for Bioengineering
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: ENGR 216 and ME 230 and (ME 265 or 345)

This course is an introduction into mass and heat transport phenomena in biomedical systems. Basic mechanisms of fluid flow, heat transfer, and diffusion are presented and applied to biological objects (cells, tissues, organisms) and biomedical devices. Topics include mass, momentum, and energy conservation laws, physical properties of common and biological fluids, elements of fluid statics, control volume analysis, basics of fluid mechanics, conduction and convection heat transfer, diffusion, applications to hyper- and hypothermia, thermal ablation, and cryopreservation, basics of mass and heat transfer in the body.

BENG 351 Bio-Sensors & Instrumentation
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Coll of Arts, Sciences & Letters

Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 305 and (ENGR 216 or ECE 270) and MATH 216 and BIOL 103 and BIOL 140

The course covers measurements in biological materials using a variety of sensor technologies along with electronic instrumentation design and use. Safety and FDA requirements are also presented.

BENG 364 Prob&Stat in Bioengineering
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: MATH 116 or MATH 114 or MPLS 215

The course provides a basic understanding of how the human body functions as a mechanical system. Review of mechanics. Musculoskeletal anatomy, statics and kinematics, muscle force redundancy, joint mechanics. Bone and soft tissue mechanics, muscle active force generation. Implant stress shielding and impact safety. Laboratory experiments directed at rehabilitation engineering, biological bone and tissue property measurement, bone and implant structural analysis, and impact safety.

BENG 370 Biomechanics I
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Coll of Arts, Sciences & Letters
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: (ME 265 or ME 345) and MATH 216

The course provides a basic understanding of the structure, properties and therapeutic applications of biomaterials, as well as the opportunities and scientific and technological challenges of tissue engineering. It also provides an integrated and multidisciplinary biological-engineering approach and probes mechanisms and methods of evaluation of tissue/biomaterials and patient/device interactions. Further the course assesses current outcomes, current challenges and cutting edge technological solutions to medical problems, Laboratory topics include key biological concepts, clinical safety, tissue culture, biological cells/bioactive materials interaction, and scaffold testing.
BENG 425 Transport in Biosystems
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ME 375 or BENG 325

The course introduces transport phenomena in biological and medical systems to students already familiar with basic thermal-fluid sciences. Topics include properties of body fluids and cell membranes, blood flow and solute and oxygen transport in biological systems, basic principles of pharmacokinetic analysis, transport phenomena in medical devices and artificial organs.

BENG 470 Biomechanics II
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Coll of Arts, Sciences&Letters
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: BENG 370

The course covers intermediate level subject matter on structural biomechanics. Topics include bone structure modeling, implant and fixation materials, analysis and design, ocular biomechanics, and head impact and injury.

Computer and Information Science (CIS)
COURSE OFFERINGS

CIS 112 Computer Literacy/Info Mgmt
3.000 Credits
This is a microcomputer literacy course with primary emphasis on the application tools of the word processor, spreadsheets, and database. Additional topics of computer terms, systems, and use in society are included. The course is intended for undergraduates in the College of Arts, Sciences, and Letters. No previous experience with computers is expected. (YR).

CIS 125 Survey of Computer Science
3.000 Credits
A survey of computer science topics, including history of computing, office productivity software, the internet, HTML, JavaScript, web design, algorithms, assemblers and compilers, gates and logic design, models of computation, artificial intelligence and expert systems, computing ethics, privacy issues, intellectual property. No credit for CIS majors. (F,W,S).

CIS 150 Computer Science I
4.000 Credits
Prerequisites: MATH 115 * or MATH 113 * or MPLS 116
Co-requisites: CIS 150L

This course provides a foundation for further studies in computer and information science. It emphasizes a structured approach to problem solving and algorithm development. Topics include principles of program design, coding, debugging, testing and documentation. Students are introduced to the Unified Modeling Language for requirements analysis using use-cases and activity diagrams, an object-oriented programming language (C++), and the fundamentals of computer hardware, system software and components. The course will consist of three lecture hours and one two-hour laboratory. (F,W,S)

CIS 200 Computer Science II
4.000 Credits
Prerequisites: (MATH 115 or MPLS 116) and (CIS 150 or IMSE 150 or CCM 150) and CIS 275*
Co-requisites: CIS 200L CIS 275

This course presents techniques for the design, writing, testing and debugging of medium-sized programs, and an introduction to data structures (stacks, queues, linked lists) using the C++ programming language. C++ topics covered include pointers, templates and inheritance. The principles of UML modeling are also introduced. This course will consist of three lecture hours and one two-hour laboratory. (F,W,S)

CIS 205 C Programming
3.000 Credits
Prerequisites: ENGR 100 or (MATH 105 or MPLS 113)

A study of the C programming language. Students write several programs illustrating the use of C in science, engineering, and business. No credit for CIS Majors.

CIS 275 Discrete Structures I
4.000 Credits
Prerequisites: (MATH 115 or MPLS 11) and MATH 115
Co-requisites: CIS 200

This course introduces students to various topics in discrete mathematics, such as set theory, mathematical logic, trees, and graph theory. Applications to relational databases, modeling reactive systems and program verification are also discussed. (F,W,S)

CIS 285 Software Engineering Tools
3.000 Credits
Prerequisites: CIS 200 and CIS 275

This course will cover various CASE tools, such as UML modeling and code generation tools, configuration management tools, defect management tools, an integrated development environment for coding and debugging, unit and testing tools, and build tools. Students will learn these tools in a laboratory environment. This course will be comprised of one lecture hour and one two-hour laboratory. (F,W,S)

CIS 290 Topic in Programming Languages
2.000 Credits
Prerequisites: CIS 200

One significant programming language is covered in depth. The particular language changes from term to term. The language chosen might be Ada, C, MODULA 2, USP, PROLOG, or SMALLTALK.

CIS 294 Programming with Visual Basic
3.000 Credits
Prerequisites: CIS 200 or IMSE 200

An introduction to create professional-looking applications using the graphical user interface of Windows. Students learn how to create graphical objects and controls, write event driven code that responds to clicking on buttons, work with multiple forms and executable files. (F,S).
**CIS 296 Java Programming**  
3.000 Credits  
Prerequisites: CIS 200 or IMSE 200  

Course covers Java Programming language, focusing on GUI development, distributed computing and network applications.

**CIS 297 Intro to C Sharp**  
Prerequisites: CIS 200  

This course provides an introduction to the C# programming language and the .NET Framework for the development of Windows game applications. Some discussion of DirectX programming and Xbox game development is also included. (W)

**CIS 299 Internship**  
1.000 TO 3.000 Credits  

Student works with an industrial sponsor in the area of CIS. Approval of Internship Coordinator required. (F,W,S).

**CIS 306 Discrete Structures II**  
4.000 Credits  
Prerequisites: CIS 275  

This course introduces students to further topics in discrete mathematics, including theory of computation, more complexity theory, coding theory, and game theory.

**CIS 310 Computer Org and Assembly Lang**  
4.000 Credits  
Prerequisites: (MATH 115 or MPLS 116) and (CIS 200 or IMSE 200) and CIS 275  

The architecture of computer systems and associated software. Topics include digital logic circuits, computer interfacing, interrupt systems, input/output systems, memory systems, assemblers and assembly language programming, and computer networks. (F,W,S).

**CIS 350 Data Struc and Algorithm Anlys**  
4.000 Credits  
Prerequisites: (MATH 115 or MPLS 116) and (CIS 200 or IMSE 200) and CIS 275  

This course focuses on data design and algorithm design. Data design topics include object-oriented discussions of hashing, advanced tree structures, graphs, and sets. Algorithm design topics include the greedy, divide-and-conquer, dynamic programming, backtracking and branch-and-bound techniques. A significant discussion of algorithm complexity theory, including time and space trade-offs and elementary computability theory, is included. (F,W,S)

**CIS 3501 Data Struc & Alg Anlys for SE**  
4.000 Credits  
Prerequisites: (CIS 200 or IMSE 200) and CIS 275 and CIS 285 * and MATH 115  

This course focuses on data design and algorithm design for software engineers. Data design topics include object-oriented discussions of hashing, advanced tree structures, graphs and sets. Algorithm design topics include the greedy, divide-and-conquer, dynamic programming, backtracking and branch-and-bound techniques. A significant discussion of algorithm complexity theory, including time and space trade-offs and elementary computability theory, is included. (F,W,S)

**CIS 375 Software Engineering I**  
4.000 Credits  
Prerequisites: (CIS 350 or CIS 3501 or IMSE 350) or (ECE 370 and MATH 276) or (ECE 370 and ECE 276) and (COMP 270 or COMP 106 or COMP 220 or CPAS 40)  

This course presents an in-depth treatment of the following software engineering topics: software engineering paradigms, requirements, specification, functional design, object-oriented design, user interface design, software verification and validation, and the maintenance and management of software engineering artifacts, as well as an introductory discussion of software reliability. Various phases of the software engineering process will be modeled using UML. (F,W)

**CIS 376 Software Engineering II**  
4.000 Credits  
Prerequisites: CIS 375  

This course continues the formal development of the software engineering material begun in CIS 375. Topics covered include personal software process, team software process, formal methods, security, software architecture, software quality assurance, software fault tolerance, the evaluation of the effectiveness of human computer interaction and software reliability. (W,S)

**CIS 381 Industrial Robots**  
3.000 Credits  

Must be enrolled in one of the following classes:  
Junior  
Prerequisites: MATH 115  

The course introduces students in engineering, management and computer science to modern robot technology and the application of this technology to improve productivity in manufacturing and assembly operations. The emphasis will be on applications of robot technology to production problems rather than on the extensive theory of robotics. (F,W,S).

**CIS 387 Digital Forensics I**  
4.000 Credits  

Must be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: (CIS 200 or ECE 270) and (CIS 310 * or ECE 370 * or ECE 372 *)  

This course takes a detailed, hands-on approach to study the procedures and techniques used to identify, extract, validate, document and preserve electronic evidence. Students completing this course will be familiar with the core computer science theory and practical skills necessary to perform basic computer forensic investigations, understand the role of technology in investigating computer-based crime, and be prepared to deal with investigative bodies at a basic level.

**CIS 390 Topics in Computer Science**  
1.000 TO 3.000 Credits  

Prerequisites: CIS 350 or CIS 3501 or IMSE 350 or (ECE 370 and MATH 276) or (ECE 370 and ECE 276) or (ECE 370 and MATH 276)  

A course designed to offer selected topics in an area of computer science. The specific topics will be announced (together with special prerequisites) each time offered. Students must elect different topics to take both CIS 390 and CIS 391. (OC).
CIS 391  Topics in Computer Science II
1.000 TO  3.000 Credits
Prerequisites: CIS 350 or CIS 3501 or IMSE 350 or (ECE 370 and ECE 276) or (ECE 370 and MATH 276)
A course designed to offer selected topics in an area of computer science. The specific topics will be announced (together with special prerequisites) each time offered. Students must elect different topics to take both CIS 390 and CIS 391. (OC).

CIS 399  Internship
1.000 TO  3.000 Credits
Student works with industrial sponsor in the area of CIS. Permission of Internship Coordinator required. (F,W,S).

CIS 400  Programming Languages
4.000 Credits
Prerequisites: (CIS 350 or IMSE 350 or CIS 3501) or (ECE 370 and MATH 276) or (ECE 370 and ECE 276)
Systematic study of programming languages with regard to their implementation, structures, and use. Languages are compared with regard to their various data types, data structures, operations, control structures, programming environments, and ease of use in solving various programming problems. (F,W).

CIS 405  Algorithm Analysis & Design
3.000 Credits
Prerequisites: CIS 350
This course investigates how to design efficient algorithms. Topics include asymptotic analysis, amortized analysis, divide-and-conquer, dynamic programming, greedy algorithms, branch and bound, backtracking, lower bounds, NP-completeness and approximation algorithms.

CIS 421  Database Mgmt Systems
4.000 Credits
Prerequisites: CIS 350 or CIS 3501 or IMSE 351 or (ECE 370 and MATH 276)
An introduction to database systems, concepts, and techniques. Topics covered include: database environments, ER modeling, relational data model, object-oriented databases, database design theory and methodology, database languages, query processing and optimization, concurrency control, database recovery, and database security.

CIS 423  Dec Support and Exp Sys
3.000 Credits
Prerequisites: CIS 421
The application of artificial intelligence to building decision support and expert systems for management and other applications. Topics include fundamentals of artificial intelligence, knowledge representation and knowledge processing, tools for building expert systems (logic programming, expert shells), decision support system design (modeling and simulation), expert system design (knowledge engineering, learning). (F).

CIS 425  Information Systems
4.000 Credits
May not be enrolled in one of the following Classes:
Sophomore
Freshman
Prerequisites: CIS 375 and CIS 421 *
This course is an introduction to the principles of information systems analysis and design and their role in business organizations. Topics include Systems Development Life Cycle (SDLC), using CASE (Computer Aided Software Engineering) tools for systems design and analysis, prototyping, Rapid Application Development (RAD), extreme programming, quality assurance through software engineering, and object-oriented systems design and analysis using UML (Unified Modeling Language). Participation in a major design project is a requirement for this course.

CIS 426  Inf Sys Analysis & Design I
4.000 Credits
Prerequisites: CIS 375 and CIS 421 *
An introduction to the principles of information systems analysis and design and their role in business organizations. Topics include information systems strategy and planning, ethical issues in information systems, system modeling, clean-room system engineering, domain ontologies, UML, Enterprise Unified Process, e-business, and supply-chain management, deployment and support. Participation in a major design project is a requirement for this course. (F).

CIS 4261  Inf Sys Analysis & Design II
4.000 Credits
Prerequisites: CIS 4261
This course is a continuation of CIS 4261 and provides students with breadth and depth in the information systems area. Topics include web-based information systems, e-commerce, computer-supported collaborative work, workflow systems, data mining, and data warehousing. Participation in a major design project is a requirement of this course. (W).

CIS 427  Comp Networks and Dis Process
4.000 Credits
Prerequisites: (CIS 350 or CIS 3501 or IMSE 351) or (ECE 370 and MATH 276) or (ECE 370 and ECE 276) and IMSE 317
Study of the management aspects of computing networks and distributed systems. Topics include network architectures (ISO/OSI, TCP/IP, ATM), communication hardware (transmission media, network adaptors, switches), encoding, framing, error detection and correction, reliable transmission, data link control and LAN technology, internetworking, routing/congestion control, network design/management.

CIS 428  High Speed Network Admin
3.000 Credits
Prerequisites: CIS 427
The course requires students to setup and manage their own computer network in the lab. Topics include: overview of file servers, LAN configurations and protocols, server hardware (CPU, hard drives, memory), server clients, server installation, domains, user accounts, groups, rights, directories, permissions, applications, printers, other OS, monitoring, maintenance, high speed switching, ATM, video, routers, fire walls. (YR).

CIS 435  Web Technology
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following classes:
Senior
Junior
Prerequisites: CIS 375 * or CIS 553 * or CIS 553
This course deals with the study of technologies used to design and implement multimedia web sites. Topics include web servers, HTML, CGI, scripting languages, Java applets, back-end database connectivity, web security, multimedia, XML. (F,W).

**CIS 437  Advanced Networking**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
College of Business  
Prerequisites: CIS 427

Topics include an overview of the internet, congestion control, quality of service, internet multicasting, multimedia networking, mobile and wireless networks, vehicular networks, overlay networks, peer-to-peer networks, internet management (SNMP), and internet applications (web-HTTP and email-SMTP).

**CIS 447  Intro Computer & Network Security**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
College of Business  
Prerequisites: CIS 450 *

This course will provide a broad-spectrum introduction to the fundamental principles of computer and network security. Topic will include security policies, models and mechanisms for confidentiality, integrity and availability, access control, authorization, cryptography and applications, threats and vulnerabilities in computer networks, key management, firewalls and security services in computer networks.

**CIS 450  Operating Systems**  
3.000 OR 4.000 Credits  
Prerequisites: CIS 310 and (CIS 350 or CIS 3501 or IMSE 350) or (ECE 370 and MATH 276) or (ECE 370 and ECE 276) and IMSE 317 *

Introduction to computer operating systems. Process control, threads, concurrency, memory management, virtual memory, uniprocessor, multiprocessor, and real-time scheduling, I/O management, disk scheduling, file management, distributed processing, client/server, clusters, distributed process management security. (F,W).

**CIS 451  Computer Graphics**  
3.000 Credits  
Prerequisites: (MATH 217 or MATH 227) and CIS 350 or CIS 3501 or IMSE 350 or (ECE 370 and MATH 276) or (ECE 370 and ECE 276)

Basic geometrical concepts: graphics output primitives, two-dimensional transformations, windowing and clipping, three-dimensional viewing, visible surface detection methods, and graphical user interfaces. (F).

**CIS 452  Inf Vis & Multimedia Gaming**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
College of Business  
Must be enrolled in one of the following classes:  
Senior  
Prerequisites: CIS 451

This course introduces basic techniques for digital animation, computer and video games, and web multimedia. Topics include the process of creating animated video clips from start to finish, including story creation, storyboarding, modeling, animation, and post-production; several key techniques for video editing and motion generation, including keyframe, motion capture editing, collision detection, particle systems, physical simulation, and real-time rendering; techniques for web animation and multimedia; and internet gaming.

**CIS 456  Windows Programming**  
3.000 Credits  
Prerequisites: CIS 350

This course covers the core tenets of the Microsoft Foundation Class (MFC) or similar package and Windows programming. The emphasis will be on the relationship between Windows Operating System and MFC. Windows OS has three major components: user, graphics device interface (GDI), and kernel. User is a module that controls input devices, GDI is a module that services output devices, and kernel controls internal resources. These three components are called the API and communicate with MFC. Projects will be assigned to simulate the major components of API using MFC. (YR)

**CIS 467  Digital Forensics II**  
4.000 Credits  
May not be enrolled in one of the following Colleges:  
Coll of Ed, Health, & Human Ser  
College of Business  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: (CIS 427 * or ECE 471 *) and (CIS 387 or ECE 387)

This course is a continuation of Digital Forensics I and will focus on Internet Forensics. Students will examine in-depth concepts in Internet evidence collection and preservation, as well as applications of contemporary commercial forensic investigative software.

**CIS 474  Compiler Design**  
3.000 Credits  
Prerequisites: CIS 350 or CIS 3501 or IMSE 350 or (ECE 370 and MATH 276)

Principles of language compilation. Introduction to formal languages. Lexical analysis, top-down and bottom-up parsing, code generation and optimization. Error handling and symbol table management. Run-time storage management. Programming language design. Introduction to compiler-writing tools such as LEX and YACC. (F,W).

**CIS 475  Software Engineering Seminar**  
3.000 Credits  
Prerequisites: CIS 376

The focus of this course is on management issues related to modern software engineering practice. Students read and discuss papers written by master software engineering professionals. Seminar topics discussed include: management of software engineering processes, software measurement, software engineering ethics, and legal issues related to professional practice. (W, S).

**CIS 476  Soft Arch & Design Patterns**  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Prerequisites: CIS 375

This course focuses on design patterns in object-oriented programming. This course begins with an overview of UML and
a review of object-oriented programming and then moves on to various structural, behavioral and creational patterns, including: facades, adaptors, bridges, factories and the template method. Analysis of case studies will also be discussed. Using various modern software tools, students will apply various design patterns to real-world software design problems to gain complete practical understanding. (F,W)

CIS 479  Artificial Intelligence
3.000 Credits
Prerequisites: CIS 350 or CIS 3501 or IMSE 350 or (ECE 370 and MATH 276) or (ECE 370 and ECE 276)

This course introduces students to basic concepts and methods of artificial intelligence from a computer science perspective. Emphasis of the course will be on the selection of data representations and algorithms useful in the design and implementation of intelligent systems. The course will contain an overview of one AI language and some discussion of important applications of artificial intelligence methodology. (S).

CIS 487  Computer Game Design & Impel
3.000 Credits
Must be enrolled in one of the following Levels: Undergraduate
Must be enrolled in one of the following Colleges: Coll of Engineering & Comp Sci
Must be enrolled in one of the following classes: Senior Junior
Prerequisites: CIS 375 *

This course deals with the study of the technology, science and art in the creation of computer games. The focus of the course will be hands-on development of computer games. Students will study a variety of software technologies relevant to computer game design, including programming languages, scripting languages, operating systems, files systems, networks, simulation engines and multi-media design systems. Lecture topics will be taken from several areas of computer science: simulation and modeling, computer graphics, artificial intelligence, real-time processing, game theory, software engineering, human computer interaction, graphic design and game aesthetics. (F).

CIS 488  Computer Game Design II
3.000 Credits
Must be enrolled in one of the following Colleges: Coll of Engineering & Comp Sci
Must be enrolled in one of the following classes: Senior Junior
Prerequisites: CIS 487

This course is a continuation of the material studied in CIS 487. The focus of the course will be hands-on development of computer game development tools (e.g. game engines). Students will study a variety of software technologies relevant to computer game design, including: 3D graphics, computer animation, data-driven game design, multiplayer game programming, and game AI. Lecture topics will be taken from several areas of computer science: simulation and modeling, computer graphics, artificial intelligence, game theory, software engineering, human computer interaction and game content development. (W)

CIS 490  Advanced Topics
1.000 TO 3.000 Credits
Prerequisites: CIS 350 or CIS 3501 or IMSE 350 or (ECE 270 and ECE 276) or (ECE 370 and MATH 276)

This course is intended for seniors and graduate-level students in CIS. For specific topic, consult current semester's Schedule of Classes. (OC).

CIS 491  Research Project I
1.000 TO 4.000 Credits
Must be enrolled in one of the following Major fields of study:
CIS/Information Systems
Must be enrolled in one of the following classes:
Senior

Provides the advanced student with the opportunity to undertake a research project under the supervision of a faculty member. At least two weeks prior to registration in the semester when such a course is to be elected, an interested student must submit to the CIS chair and one CIS faculty member a written request for permission to elect a research course on the appropriate form available in the CIS Office. The request will include a description of the proposed research project. The CIS chair will review the proposal with faculty members to ascertain availability of relevant faculty supervision and to establish appropriate credit. Grades will be granted on a Pass/Fail (S/E) basis exclusively. (F,W,S).

CIS 492  Research Project II
1.000 TO 4.000 Credits
Must be enrolled in one of the following Major fields of study:
CIS/Information Systems
Must be enrolled in one of the following classes:
Senior

This course is a second registration for a research project in CIS. (F,W,S).

CIS 493  Independent Study I
1.000 TO 4.000 Credits
Readings or analytical assignments in accordance with the needs and interests of those enrolled and agreed upon by the student and an instructor, which shall not duplicate a formal course offering. Permission of instructor required. (F,W,S).

CIS 494  Independent Study II
1.000 TO 4.000 Credits
This course is a second registration for an independent study in CIS. Permission of instructor required. (F,W,S).

CIS 495  Design Seminar
4.000 Credits
Must be enrolled in one of the following Colleges: College of Business
Must be enrolled in one of the following classes: Senior
Prerequisites: CIS 375

Students participate in the design and implementation of a major software project. Seminar topics discussed include: computing ethics and professional practice in computer science. (F,W,S).
CIS 4951  Design Seminar I  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Prerequisites: CIS 375  

Students participate in the design and implementation of a major software project. Seminar topics discussed include: computing ethics and professional practice. (F,W,S)

CIS 4952  Design Seminar II  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Prerequisites: CIS 4951  

Students continue to participate in the design and implementation of a major software project. Seminar topics discussed include: computing ethics and professional practice in software engineering.

CIS 496  Design Seminar for SE  
4.000 Credits  
Prerequisites: CIS 376 and CIS 476  

Software engineering students participate in the design and implementation of a major software project. Seminar topics discussed include: computing ethics and professional practice in software engineering.

CIS 4961  Design Seminar for SE I  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Prerequisites: CIS 376  

Software engineering students participate in the design and implementation of a major software project. Seminar topics discussed include: computing ethics and professional practice in software engineering. (F,W,S)

CIS 4962  Design Seminar for SE II  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Prerequisites: CIS 4961 and CIS 476 *  

Software engineering students continue to participate in the design and implementation of a major software project. Seminar topics discussed include: computing ethics and professional practice in software engineering.

CIS 499  Internship  
1.000 TO 3.000 Credits  

Student works with industrial sponsor in area of CIS. Approval of Internship Coordinator required. (F,W,S).

Engineering (ENGR)  
COURSE OFFERINGS  

ENGR 126  Engineering Computer Graphics  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
May not be enrolled in one of the following Classes:  
Graduate  
Co-requisites: ENGR 126L  


ENGR 216  Computer Meth for Engineers  
2.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  
Prerequisites: ENGR 100 and ENGR 126* and MATH 216 * and (MATH 217 * or MATH 227 *)  

Computer programming in C (or one of its derivatives) and application to basic numerical techniques. Numerical integration, solution of systems of linear equations, root finding, curve fitting, error properties, numerical precision. (F,W,S).

ENGR 250  Principles of Eng Materials  
3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
May not be enrolled in one of the following Classes:  
Senior  
Prerequisites: (CHEM 144 or CHEM 134) and (CHEM 146 * or CHEM 136 *) and MATH 115 *  
Co-requisites: ENGR 250R  

An introductory course in engineering materials. Particular emphasis is given to the correlation of material properties and internal structures; structure of materials; stress- strain curves; temperature effects; phase diagrams; ferrous and non-ferrous alloys; ceramics; polymers; composites; electrical, magnetic, and optical properties; corrosion and failure. Two-hour lectures and two one-hour recitations.

ENGR 290  Study Abroad Technical Subj  
1.000 TO 4.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Must be enrolled in one of the following classes:  
Senior  
Sophomore  
Freshman  
Junior  

200-level study abroad course in technical subjects.
ENGR 300  Creative Problem Solving
1.000 Credits
Principles of creative thinking, innovation, and group dynamics will be examined. The steps of creative problem solving will be presented and used in a practice problem: 1) problem definition, 2) verbal brainstorming and other idea-generating methods, 3) creative idea evaluation, 4) idea judgment and decision making, and 5) implementation. Finally, the two phases of the Pugh method (creative design evaluation) will be studied in a practical application.

ENGR 332  Speech for Professionals
3.000 Credits
Professionals must effectively communicate in the technical and business environment of a company organization. The course pays particular attention to verbal communications within and between organizations, focusing on multiple audiences and their varying needs for information. Stressing audience awareness, organization, clarity and efficiency in speaking, it will improve speaking skills necessary for confident verbal presentations such as professional briefings and conferences.

ENGR 350  Nanoscience and Nanotechnology
4.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Coll of Arts,Sciences&Letters
Must be enrolled in one of the following Major fields of study:
Biochemistry
Biological Sciences
CIS/Computer Science
CIS/Information Systems
Chemistry (ACS Certified)
Chemistry (Instructional)
Computer Engineering
Electrical Engineering
Engineering
Environmental Science
Environmental Studies
Industrial & Systems Engin
Manufacturing Engineering
Mechanical Engineering
Microbiology
Physics
Software Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: PHYS 151 and CHEM 124
The terms "nanoscience" and "nanotechnology" have come to mean many different scientific and technical disciplines. The course will introduce students to the fundamentals of nanoscience and nanotechnology. Interesting phenomena about individual nanometer scale objects will be discussed. The difference in properties of objects of nanometer scale, containing hundreds or thousands of atoms and those exhibited by individual atoms or molecules or the properties of materials at the macroscale with which we are most familiar will be covered. The analytical techniques that are used to characterize these objects will be discussed. The manufacturing techniques used to make these objects along with their applications will be covered. Cost benefit analysis of nanotechnology and its future will be discussed. (YR)

ENGR 390  Study Abroad Technical Subj
1.000 TO  4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Senior
Sophomore
Freshman
Junior
300-Level study abroad topics in technical subjects.

ENGR 400  Appl Business Tech for Engr
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Professional Development
Must be enrolled in one of the following Classes:
Senior
Post-baccalaureate NCFD
This course will introduce the students those business skills/tools that will be needed in their jobs soon after graduation and will make them better and well-rounded engineers. They will be able to function better within today's global business environment. The major topics of the course are management finance including cost accounting, organizational behavior, program and project management and business related system thinking. Three hours of lecture per week.

ENGR 490  Study Abroad Technical Subj
1.000 TO  4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Senior
Sophomore
Freshman
Junior
400-level study abroad course in technical subjects.

Electrical and Computer Engineering (ECE)

ECE 210  Circuits
4.000 Credits
Prerequisites: (MATH 116 or MPLS 215) and PHYS 151 *
Co-requisites: ECE 210L
Fundamental laws, electrical elements and sources, energy and power. DC analysis of linear circuits. Node and mesh analysis. Operational amplifiers and op-amp circuits, Thévenin and Norton theorems. Sinusoidal steady-state response and the phasor concept. Introductory concepts on complex frequency, average power in AC circuits. Transient responses. Three lecture hours per week and one three-hour laboratory per week.

ECE 270  Computer Methods in ECE I
4.000 Credits
Prerequisites: ENGR 100
Covers structured and object-oriented computer programming concepts in the context of the C/C++ programming language and engineering applications. Four lecture hours per week with programming assignments.
ECE 273  **Digital Systems**  
4.000 Credits  
Prerequisites: ENGR 100  
Co-requisites: ECE 273L  

Introduction to digital logic. Topics include numbers and coding systems; Boolean algebra with applications to logic systems; Karnaugh and Quine-McCluskey minimization; combinatorial logic design; flip-flops; sequential network design; and design of digital logic circuits. Three lecture hours per week and one three-hour laboratory per week.

ECE 276  **Discrete Math in Computer Engr**  
4.000 Credits  
Prerequisites: (MATH 116 or MPLS 215) and ECE 273 *  

An introduction to fundamental concepts of discrete mathematics for computer engineering. Topics will be chosen from set theory, partially ordered sets, lattices, Boolean algebra, semi-groups, rings, graphical representation of algebraic systems, graphs, and directed graphs. Applications in various areas of computer engineering will be discussed. (YR).

ECE 299  **Internship**  
3.000 Credits  
Must be enrolled in one of the following Classes:  
Senior  
Junior  

This is a Cooperative Education course. Students wishing to experience a work experience before graduation may elect to participate in the Cooperative Education Program (minimum of two terms). (F,W,S).

ECE 300  **Signals and Systems**  
4.000 Credits  
Prerequisites: ECE 210 and (MATH 217* or MATH 227 *) and MATH 216  

Signals and systems representation and classification. Impulse response and convolution integral. Fourier analysis of continuous time signals and systems. Laplace transforms with applications to linear system analysis. Introduction to computer software for solving problems involving signals and systems. Three lecture hours and three recitation hours per week.

ECE 305  **Intro to Electrical Eng**  
4.000 Credits  
May not be enrolled in one of the following Major fields of study:  
Electrical Engineering  
Prerequisites: PHYS 151 and MATH 205 and (MATH 217 * or MATH 227 *)  
Co-requisites: ECE 305L  

Introduction to electrical and electronic circuits, machinery, and instrumentation. Topics include Kirchoff's Laws, Thvenin and Norton theorems, sinusoidal and transient circuit analysis, numerical methods, solid state electronics, motors and generators, measuring instruments. Three lecture hours and one three-hour laboratory analysis. Not open to ECE students.

ECE 311  **Electronic Circuits I**  
4.000 Credits  
Prerequisites: ECE 210 and CHEM 144 and (COMP 270 * or COMP 106 * or COMP 220 * or COMP 280 * or CPAS 40)  
Co-requisites: ECE 311L  

Terminal characteristics and biasing of semiconductor diodes, bipolar and field-effect transistors, operational amplifiers. Rectifiers, amplifiers, and logic. Design projects. Three lecture hours and one three hour laboratory per week.

ECE 314  **Filter Design**  
3.000 Credits  
Prerequisites: ECE 311 and ECE 317  

Review of filter descriptions, transfer functions, and frequency response characteristics; first and second order passive and active filters; biquad circuits; filter transformations. Butterworth, Chebyshev, and Elliptic filters; OPAMP realization of active filters; sensitivity analysis of active circuits. Three lecture hours per week.

ECE 316  **Computer Electronics**  
4.000 Credits  
Prerequisites: ECE 210 and ECE 273 and (COMP 270 * or COMP 106 * or CPAS 40 or COMP 220 *)  

Design of selected electronic circuits such as signal conditioning amplifiers. Switching and digital logic circuits, using FET and BJT devices, A/D and D/A converters. Two-hour lecture and one three-hour lab per week. (YR).

ECE 317  **Electronic Signals and Systems**  
4.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Classes:  
Senior  
Junior  
Prerequisites: MATH 216 and (MATH 217 * or MATH 227 *)  


ECE 3171  **Analog & Discrete Sig & Sys**  
4.000 Credits  
Prerequisites: ECE 210 and ECE 273 and (COMP 270 * or COMP 106 * or CPAS 40 or COMP 220 *)  


ECE 319  **Electromagnetic Compatibility**  
4.000 Credits  
Prerequisites: ECE 311  

Introduction, cabling, grounding, balancing and filtering, passive components, shielding, digital circuit noise and PCB layout, radiation, ESD, regulations, demos, experiments, lab projects and guest lectures. Three Lecture hours and one three-hour laboratory per week.
ECE 321 Electromagnetic Fields/Waves  
3.000 Credits  
Prerequisites: ECE 311 *

Vector analysis; static electric field; steady electric currents; static magnetic fields; time-varying fields and Maxwell's equations; plane electromagnetic waves. Three lecture hours per week.

ECE 329 Intro to Computer Music  
4.000 Credits  
Must be enrolled in one of the following Classes:  
Senior  
Junior  
Prerequisites: MATH 105

This course will introduce students to methods and technologies of computer music. The basics of digital audio will be covered, including sampling, quantization, and compression standards. Various analysis tools will be covered, including the Fourier transform and windowing techniques. Mathematical models of physical instruments will be introduced. Various sound synthesis strategies will be introduced: wave tables, additive synthesis, subtractive synthesis, frequency modulation, and granular synthesis.

ECE 351 Bio-Sensors & Instrumentation  
4.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Coll of Arts, Sciences&Letters  
Must be enrolled in one of the following Classes:  
Senior  
Junior  
Prerequisites: ECE 305 and (ENGR 216 or ECE 270) and MATH 216 and BIOL 103 and BIOL 140

The course covers measurements in biological materials using a variety of sensor technologies along with electronic instrumentation design and use. Safety and FDA requirements are also presented.

ECE 365 Control Syst Analysis & Design  
4.000 Credits  
May not be enrolled in one of the following Major fields of study:  
Electrical Engineering  
Prerequisites: ECE 305 or ME 345  
Co-requisites: ECE 365L

System and signal representation, elementary modeling of physical systems. Laplace transform, transfer functions and block diagrams representation. State variable representation. Concept of feedback, and transient and frequency response methods. System stability criteria. Control system design. Three lecture hours and one three-hour laboratory per week. (Not open to ECE students.)

ECE 370 Adv Soft Techn in Comp Engr  
4.000 Credits  
Prerequisites: ECE 270 and ECE 273 *

Advanced concepts and techniques of modular object oriented and structured programming; representative real-world computer engineering applications including data structures, search and sorting. A term project is required. Four lecture hours per week. (F,W,S).

ECE 371 Information Structures  
3.000 Credits  
Prerequisites: ECE 370 or ECE 274

Fundamentals of computer data structures. Introduction to abstract data types. Characteristics and implementation of structured data types including arrays, stacks, queues, linked lists, generalized lists, trees, and graphs. Algorithms and applications of data structures in sorting and searching. Considerations of algorithm efficiency and complexity. Engineering applications and design. Three lecture hours per week.

ECE 372 Intro to Microprocessors  
.00 OR 4.000 Credits  
Prerequisites: (ECE 270 and ECE 273) or CIS 310) and (COMP 270 or COMP 106 or COMP 220 or CPAS 40

Introduction to operation, interfacing, and applications of microcomputers and microprocessor-based systems. Assembly language programming, interrupts and interfacing. Three lecture hours and one three-hour laboratory per week.

ECE 375 Intro to Comp Architecture  
4.000 Credits  
Prerequisites: ECE 270 and ECE 273 and (ECE 276 * or MATH 276 *) and ECE 372 *

Introduction to architecture of mini- and mainframe computers. CPU, memory, and I/O characteristics. Introduction to parallel architectures and hardware design languages. Case studies of popular computer systems and design considerations. A design project is required. Three lecture hours and one laboratory hour per week.

ECE 3801 Intro to Signals and Systems  
3.000 Credits  
May not be enrolled in one of the following Levels:  
Undergraduate  
May not be enrolled in one of the following Major fields of study:  
Electrical Engineering  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: ECE 210 and MATH 216


ECE 385 Elec Materials and Devices  
3.000 Credits  
Prerequisites: ECE 311 * and CHEM 144

Introduction to properties of conductors, semi-conductors, and insulators. Definitions of stress and strain. Description of the mechanical behavior of solids. Characterization of selected materials; circuit models for resistors, capacitors, inductors, junction and field-effect transistors, etc. Three lecture hours per week.
ECE 387 Digital Forensics I
4.000 Credits
May not be enrolled in one of the following Levels:
Rackham
Graduate
May not be enrolled in one of the following Colleges:
Coll of Ed, Health, & Human Ser
College of Business
May not be enrolled in one of the following Classes:
Freshman
Prerequisites: (ECE 270 or CIS 200) and (ECE 370 * or ECE 372 * or CIS 310 *)
This course takes a detailed, hands-on approach to study the procedures and techniques used to identify, extract, validate, document and preserve electronic evidence. Students completing this course will be familiar with the core computer science theory and practical skills necessary to perform basic computer forensic investigations, understand the role of technology in investigating computer-based crime, and are prepared to deal with investigative bodies at a basic level.

ECE 390 Selected Topics in ECE
1.000 TO 3.000 Credits
Special topics in ECE according to student's interest and availability of instructors and equipment.

ECE 399 Internship/Co-op
2.000 Credits
Must be enrolled in one of the following Classes:
Senior
Junior
A four-month professional work experience period of the Engineering Internship Program, integrated and alternated with the classroom terms.

ECE 411 Electronics II
4.000 Credits
Prerequisites: ECE 301 and ECE 311
Review of solid state devices and their physical properties, introduction to the state of art devices, design of operational amplifiers, oscillators, switching and digital circuits. A project will be required. Three lecture hours per week and one three-hour laboratory per week.

ECE 413 Intro to VLSI Design
3.000 Credits
Prerequisites: ECE 273 and ECE 311
Introduction to digital systems and VLSI, CMOS fabrication, layout and CMOS integrated circuits, basic principles of MOSFET theory, CMOS logic circuits, subsystem design, Architecture design and HDL, CCSI chip design, advanced topics, laboratory consist of a series of design projects. Three lecture hours per week.

ECE 414 Electronic Systems Design
4.000 Credits
Prerequisites: ECE 311 and (ECE 317 * or ECE 3171 *)
Review of solid state device characteristics and circuit analysis. Design of selected electronic circuits such as operational amplifiers, power amplifiers, power supplies, oscillators, switching and digital circuits to further illustrate analysis and design of representative electronic circuits using classical and computer-aided design techniques. Four lecture/laboratory per week.

ECE 415 Power Electronics
4.000 Credits
Prerequisites: (ECE 317 or ECE 3171) and ECE 385
Introduction to power electronic circuit analysis and design. Power electronic circuits, power converters, power semiconductors. Time domain analysis emphasized. A design project is required. Four lecture/laboratory hours per week.

ECE 420 EMC Measurement and Testing
3.000 Credits
Prerequisites: ECE 319
Introduction to EMC measurements, RF measurement fundamentals, EM waves, radiation mechanisms, measurement and measurement systems, screened rooms, open field test sites, practical measurements, conducted emission measurements, radiated emission measurements, radiated immunity, conducted immunity and electrostatic discharge. Projects will be assigned.

ECE 428 Cloud Computing
3.000 Credits
Must be enrolled in one of the following Major fields of study:
Computer & Information Science
Computer Engineering
Electrical Engineering
Industrial & Systems Engineering
Mechanical Engineering
Software Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 270
Cloud computing represents the emerging Internet-based services/platforms with elastic and scalable computation powers operating at costs associated with service. Topics may include advanced web technologies (AJAX and Mashup), distributed computing models and technologies (Hadoop and Map Reduce), Infrastructure-as-a-Service (IaaS), Software as a Service (SaaS), Platform-as-a-Service (PaaS), virtualization, parallelization, security/privacy, and other issues in cloud computing. This course will also explore the current challenges facing cloud computing. Course work will include homework assignments, presentations and a term project. Students cannot take both ECE 428 and ECE 528 for degree credit. Three lecture hours per week.

ECE 431 Electrical Eng Design
4.000 Credits
Prerequisites: ECE 311 and ECE 373 and ECE 493*
The course is conducted as a guided project design course with the class divided into teams and assigned a specific design project. Periodic progress reports are submitted during the term. A final written report and an oral presentation including demonstration are required at the end of the term. Cost analysis, evaluation of design alternatives and application of engineering principles are emphasized. Two scheduled contact hours and six hours open laboratories per week.
ECE 432 Electrical Eng Design
6.000 Credits
Prerequisites: ECE 311 and ECE 372 and ECE 493 *

The course is conducted as a guided project design course over a two-semester period with the class divided into teams and assigned a specific design project. Periodic progress reports are submitted during the term. A final written report and an oral presentation including demonstration are required at the end of the term. Cost analysis, evaluation of design alternatives and application of engineering principles are emphasized. Two scheduled contact hours and six hours open laboratories per week.

ECE 433 Intr to Multimedia Technologies
4.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 311 or ECE 370

This course will introduce students to basic terminology and methods of multimedia. Basic concepts of digital audio will be reviewed, including frequency, sampling, and popular compression schemes. Concepts of digital images will be introduced, such as resolution, color theory, and compression formats. Basic concepts of digital video and animation will be introduced. Relevant web technologies will be reviewed. Four lecture hours per week.

ECE 434 Machine Learning in Engin
4.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 370

Introduce fundamental theories and basic techniques in machine learning with an emphasis on engineering applications. Topics include learning concepts, search algorithms, neural networks, fuzzy learning, paradigms for problem solving using machine learning. (F, W).

ECE 435 Intro to Mobil/Smrt Dev & Tech
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Computer Engineering
Electrical Engineering
Software Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 372

This class will introduce students to the technology used in mobile/smrt devices and mobile communication networks. Various hardware and software aspects will be introduced, with particular emphasis on the constraints intrinsic to such systems. Students will get an overview of various mobile operating systems and how to develop software for mobile devices. Four lecture hours per week.

ECE 436 Elec Machines & Hybrid Drives
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Computer Engineering
Electrical Engineering
Software Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 311

This is an introductory course on electric machines and drive systems and their application in EV, HEV, PHEV and FCV powertrains. The objectives are to familiarize the students with the basic concepts of electromechanical energy conversion and electric drive systems. Students are expected to be able to analyze and design electric drive systems for automotive powertrain applications. The topics covered in this course include DC machines, induction machines, permanent magnet synchronous machines, and switched reluctance motors and drives. Case studies in automotive applications such as electric and hybrid drivetrains will be discussed. Four lecture hours per week.

ECE 4361 Electric Machines and Drives
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Computer & Information Science
Computer Engineering
Electrical Engineering
Industrial & Systems Engin
Mechanical Engineering
Software Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 311

This is an introductory course on electric machines and drive systems and their application in HEV/PHEV powertrain and other industrial and residential systems. The objectives are to familiarize the students with the basic concepts of electromechanical energy conversion and electric drive systems. Students are expected to be able to analyze and design electric drive systems for automotive, industrial, and residential applications. The topics covered in this course include DC machines, induction machines, permanent magnet synchronous machines, and switched reluctance motors and drives. Case studies in automotive applications such as electric and hybrid drivetrains, industrial and residential electric variable speed drive systems, will be discussed. Students cannot take both ECE 436 and ECE 4361 for credit. Four lecture hours per week.

ECE 438 Web Engr: Prin & Tech
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Computer Engineering
Electrical Engineering
Software Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ECE 311 or ECE 370
Advanced concepts and techniques of web technology, focusing on interactive applications; real-world web engineering applications including data persistence, web security, hardware/software issues and asynchronous client/server communication. A term project is required. Four lectures per week.

**ECE 443 Intr to Electric Power Systems**

3.000 Credits  
Prerequisites: ECE 311 or ECE 3171

This course will introduce students to basic methods of electric power systems. Topics include AC circuits, phasors, complex power and complex impedance, transformers, per unit system, transmissions lines, power flow, economic dispatch, real and reactive power control, symmetric and unsymmetric faults, transient stability, relaying and protection. Three lecture hours per week.

**ECE 4431 Vehicular Pwr Sys & Loads**

4.000 Credits  
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci  
Must be enrolled in one of the following Classes:
Senior  
Junior  
Prerequisites: ECE 317 or ECE 3171

This is an introductory course on power systems and load analysis with focus on automotive applications. The objectives are to familiarize the students with the basic principles and concepts of vehicular power systems and loads. Students are expected to be able to analyze and design basic vehicular power systems. The topics covered in this course include an overview of power systems, vehicular power system architecture, DC and AC power grid in vehicular systems, power system stability, reliability, reactive power control, load flow analysis, short circuit analysis, and vehicular power system protection. Four lecture hours per week.

**ECE 4432 Renewable Elec Pwr Sys**

4.000 Credits  
Must be enrolled in one of the following Major fields of study:
Computer & Information Science  
Computer Engineering  
Electrical Engineering  
Industrial & Systems Engin  
Mechanical Engineering  
Software Engineering  
Must be enrolled in one of the following Classes:
Senior  
Junior  
Prerequisites: ECE 317

This course is an introduction to present and future electrical power systems, from renewable power sources, interface to the utility grid, and efficient utilization of power. The topics covered in this course include an overview of power systems, power system stability, reliability, reactive power control, load flow analysis, short circuit analysis, DC and AC power grid, photovoltaic (PV) power systems, energy efficient lighting and energy efficiency in electronic systems, wind power systems, hybrid and electric vehicles. Students cannot take both ECE 4431 and ECE 4432 for credit. Four lecture hours per week.

**ECE 446 Electromechanical Energy Conv**

4.000 Credits  
Prerequisites: ECE 311 and (ECE 317 * or ECE 3171 *)

Introduces fundamental concepts and specifications of electromechanical energy conversion: AC and DC machines drive, electric and magnetic storage and transfer, transformer, and performance analysis of AC and DC machines. The topics include principles of energy conversion, permanent magnet synchronous machines, induction machines, and DC machines. The lab projects for the course will focus on modeling, evaluation, and practice of AC and DC machine drives based on computer simulation and DSP based experiments; transient and dynamic analysis; linearization and small signal analysis of machines. Four lecture/laboratory hours per week.

**ECE 450 Analog and Digital Comm Sys**

4.000 Credits  
Prerequisites: (ECE 317 or ECE 3171) and IMSE 317

Topics include introduction to communication systems, baseband communications, sampling theorem, amplitude and frequency modulation system design, statistical analysis of error and performance, digital modulation of analog signals, digital communication and digital modulation schemes, random processes and applications in digital communications, and noise analysis, optimal receiver. Four lecture hours per week.

**ECE 451 Signal Detection**

3.000 Credits  
Prerequisites: ECE 450

Introduction to signal detection, parameter estimation and information extraction theory and its application to communication systems. Subject areas covered within the context of a digital environment are decision theory, detection and estimation of known and random signals in noise, adaptive recursive digital filtering, optimal linear filtering and pattern recognition. Three lecture hours.

**ECE 452 Probabilistic Meth/Signal Alys**

3.000 Credits  
Prerequisites: ECE 300

Introduction to probability, random processes, correlation functions, and spectral density. Response of linear systems to random inputs. Applications in the field of communications.

**ECE 454 Intr to Modern Wireless Comm**

3.000 Credits  
Must be enrolled in one of the following Levels:
Undergraduate  
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci  
May not be enrolled in one of the following Classes:
Sophomore  
Freshman  
Prerequisites: ECE 450 and ECE 471

This course provides an introduction to the fundamentals of modern wireless communication. The focus of this course will be on the (i) basic signal propagation issues and channel impairments, (ii) modulation schemes and bandwidth/power trade-offs, and (iii) overcoming channel impairment using equalizers, diversity and channel coding. Additionally case studies will examine current wireless LANs and cellular systems. Three Hours of lecture per week.

**ECE 456 Intro to Electro-optics**

3.000 Credits  
Prerequisites: ECE 311 and ECE 321
Laser sources, detectors, imaging systems, optical signal processing, illumination and image acquisition, triangulation, and fiber optics. Three one-hour lecture periods.

**ECE 460  Automatic Control Systems**
4.000 Credits  
Prerequisites: ECE 317 or ECE 3171  
Co-requisites: ECE 460L  
Modeling and response of dynamic systems. Transfer functions, poles and zeros and their significance to transient and steady state response of feedback systems. Analysis of stability of closed-loop systems. Steady state errors and transient performance of closed-loop systems. Design of feedback control systems by root locus techniques and by frequency domain methods. Laboratory projects include modeling, controller design, controller realization, system performance evaluation, and simulation studies. Three lecture hours and one three hour laboratory per week.

**ECE 464  Robotics**
4.000 Credits  
Prerequisites: (ECE 300 or ECE 365) and ME 265  

**ECE 465  Digital Control Design and Imp**
4.000 Credits  
Prerequisites: ECE 460  
Discrete model of a continuous-time system. Differential equations and Z-transforms. Similarities and differences between discrete-time and continuous-time models. Translation of analog designs to digital designs. State-space methods including state feedback and observers. Hardware limitations and implementation issues. Four lecture/laboratory hours per week.

**ECE 467  Digital Forensics II**
4.000 Credits  
May not be enrolled in one of the following Levels:  
Rackham  
Graduate  
May not be enrolled in one of the following Colleges:  
Coll of Ed, Health, &Human Ser  
College of Business  
May not be enrolled in one of the following Classes:  
Freshman  
Prerequisites: (ECE 387 or CIS 387) and (ECE 471 * or CIS 427 *)  
This course is a continuation of Digital Forensics I and will focus on Internet Forensics. Students will examine in-depth concepts in Internet evidence collection and preservation, as well as applications of contemporary commercial forensic investigative software.

**ECE 470  Computer Int and Data Comm**
4.000 Credits  
Prerequisites: ECE 372  
Hardware and software techniques used in interfacing between computers and other computers or devices. Analog and digital techniques. Parallel and serial communications. Popular communication protocols. Error detection and correction. Lab project involves interfacing and communicating with a microprocessor.

**ECE 471  Comp Networks/Data Comm**
4.000 Credits  
Prerequisites: IMSE 317 and (ECE 372 or ECE 373)  
Hardware and software techniques used in interfacing between computers and other computers or devices. Data transmission techniques and protocols. Introduction to popular local area network protocols. Forward Error Control Techniques and Data Compression. Introduction to wireless communications with focus on major challenges and obstacles and the cellular phone infrastructure. Term projects involve developing a data link layer protocol for interfacing and communication with microprocessors. Four lecture hours per week.

**ECE 473  Embedded System Design**
4.000 Credits  
Prerequisites: ECE 372  
This course studies the issues dealing with real-time embedded system design. Topics include: microprocessor architecture, assembly language, real-time programming, space and time limitations, relations between ANSI Compiler output and assembly language, compiler linkers and using a system development package for C programming. (F.W.S).

**ECE 474  Compiler Design**
3.000 Credits  
Prerequisites: ECE 370  
Principles of language compilation. Introduction to formal languages. Lexical analysis, top-down and bottom-up parsing, code generation and optimization. Error handling and symbol table management. Run-time storage management. Programming language design. Introduction to compiler-writing tools. A software design project is required. Three lecture hours per week.

**ECE 475  Comp Hardware Org/Design**
4.000 Credits  
Prerequisites: ECE 375  
Design methodology, performance analysis using probability and statistic methods, hardwired and microprogramming in CPU design, hardware design languages and memory design. Advanced concepts in computer architecture. A design project is required. Three lecture hours per week and one three-hour laboratory per week.

**ECE 476  Intro to Parallel Processing**
3.000 Credits  
Prerequisites: ECE 375  
Advances in computer architecture, parallel structures, performance evaluation, memory bandwidth considerations, processing bandwidth, communication and synchronization. A design project is required. Three lecture hours per week.

**ECE 478  Operating Systems**
4.000 Credits  
Prerequisites: ECE 370 and IMSE 317  
Introduction to computer operating systems. Process management, threads, CPU scheduling, memory management, process synchronization, file systems and I/O devices. Selected advanced topics, e.g., distributed systems, deadlock, I/O, job
scheduling, and performance analysis using queueing models, will be introduced. Case studies of modern operating systems. A design project is required. Four lecture hours per week.

**ECE 479  Artificial Intelligence**  
3.000 Credits  
Prerequisites: ECE 370

Basic concepts and methodology of artificial intelligence from a computer engineering perspective. Emphasis is placed on the knowledge representations, reasoning and algorithms for the design and implementation of intelligent systems. Introduction to an AI language and representative intelligence systems. A design project is required. Three lecture hours per week.

**ECE 480  Intro to Dig Signal Processing**  
4.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Prerequisites: (ECE 317 or ECE 3171) and (MATH 217 or MATH 227)


**ECE 488  Introduction to Machine Vision**  
4.000 Credits  
Must be enrolled in one of the following Classes:  
Senior  
Prerequisites: ECE 270

Applications to machine vision. Representative topics are: optics and lighting, sensor characteristics, image acquisition, image analysis, segmentation, connectivity, shape description, hardware for vision applications, software considerations, applications including automatic inspection and metrology. Open lab and project will be required.

**ECE 4881  Introduction to Robot Vision**  
3.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Must be enrolled in one of the following Major fields of study:  
Bioengineering  
Computer & Information Science  
Computer Engineering  
Electrical Engineering  
Industrial & Systems Engin  
Mechanical Engineering  
Software Engineering  
Prerequisites: ECE 270

This course introduces the theories and modern technologies in robot vision. Topics include sensors, image analysis, region and segmentation, object recognition, stereo vision, optical flow, color image, object tracking and applications. Students cannot receive credit for both ECE 4881 and ECE 588. Three lecture hours per week.

**ECE 490  Selected Topics in Elec Engin**  
1.000 TO  3.000 Credits

Advanced or applied topics in electrical engineering offered according to student's interest and availability of instructors and equipment. Lecture hours, laboratory, and/or computation period to be arranged.

**ECE 491  Directed Studies**  
1.000 TO  4.000 Credits  
Must be enrolled in one of the following Classes:  
Senior  
Graduate

Student in consultation with a faculty advisor will prepare a proposal in sufficient detail describing a subject topic to be studied. The proposal will be subject to approval by the department. A formal written and oral evaluation of the work performed are required for successful completion. Lecture hours, laboratory, and/or computation periods to be arranged.

**ECE 492  Directed Research**  
1.000 TO  4.000 Credits  
Must be enrolled in one of the following Classes:  
Senior  
Graduate

Student, in consultation with a faculty advisor will prepare a proposal in sufficient detail describing a research problem to be studied. The proposal will be subject to approval by the department. A formal written and oral evaluation of the research performed are required for successful completion. Lecture hours, laboratory, and/or computation period to be arranged.

**ECE 493  Design Factors in Eng**  
2.000 Credits  
Must be enrolled in one of the following Classes:  
Senior  
Graduate

This course is comprised of a series of lectures on the subject of design. It will promote awareness of such factors as literature review, performance specifications, design considerations, product liability, standards and ethics, professional registration codes, patents and copyrights, packaging, documentation and report preparation. Two lecture hours.

**ECE 495  Micro Systems Design**  
4.000 Credits  
Prerequisites: ECE 373 and (ECE 311 or ECE 316)

Course content includes discussion and laboratory experience on a number of interfacing topics (timing, serial and parallel communication, ADC/DAC, control loop) and the preparation of a major report on a design topic approved by the course instructor. Team design projects may involve either software or hardware, or both. Two lecture hours and two three-hour laboratories per week.

**ECE 4951  Sys Desgn and Microcontrollers**  
3.000 Credits  
Prerequisites: ECE 311 and ECE 372

Techniques for interfacing actuators and sensors to computers with emphasis on the use of a variety of microprocessors and a
broad range of sensors. Topics include introduction to small microprocessors such as PIC16, PIC18, small systems such as micro, basicx as well as using a PC as a controller. Control of motors and other actuators using opto-isolators and discrete electronics, use of H-bridges. Interfacing sensors that provide different encoding data, such as analog signals, digital communication using I2C protocol, handshake I/O, pulse width encoding. Interfacing to wireless communication using RF or IR. Includes laboratory experiments, individual midterm project and a final team project. Three lecture hours per week. (F,W)

**ECE 498  Senior Engineering Design**  
3.000 Credits  
Prerequisites: (ECE 311 or ECE 316) and ECE 373

This course is conducted as a guided project design course over a two-semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation and project demonstration are required. Cost analysis, evaluation of design alternatives and application of engineering principles will be emphasized. A series of lectures on design issues will be presented in the first semester.

**ECE 4981  Electrical Engineering Des I**  
2.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate

Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Must be enrolled in one of the following Classes:  
Senior

Prerequisites: (COMP 220 or CPAS 40 or COMP 106) and (ECE 317 or ECE 3171) and ECE 372 and (ECE 414 or ECE 415 or ECE 450 or ECE 460 or ECE 480 or ECE 4951)

This course is conducted as a guided project design course over a two semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation and project demonstration are required. Cost analysis, societal impact, safety issues, evaluation of design alternatives and application of engineering principles will be emphasized. A series of lectures on design issues will be presented in the first semester.

**ECE 4982  Computer Engineering Des I**  
2.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate

Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
Must be enrolled in one of the following Classes:  
Senior

Prerequisites: ECE 372 and ECE 375 and (ECE 471 or ECE 473 or ECE 478 or ECE 475)

This course is conducted as a guided project design course over a two-semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation and project demonstration are required. Cost analysis, societal impact, safety issues, evaluation of design alternatives and application of engineering principles will be emphasized. A series of lectures on design issues will be presented in the first semester.

**ECE 4983  Electrical Engin Design II**  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
May not be enrolled in one of the following Classes:  
Junior  
Senior  
Freshman

Prerequisites: ECE 4981

Second Semester - Electrical Engineering Design This course is conducted as a guided project design course over a two semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation and project demonstration are required. Cost analysis, societal impact, safety issues, evaluation of design alternatives and application of engineering principles will be emphasized.

**ECE 4984  Computer Engin Design II**  
2.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
May not be enrolled in one of the following Classes:  
Junior  
Senior  
Freshman

Prerequisites: ECE 4982

Second Semester Computer Engineering Design This course is conducted as a guided project design course over a two semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation and project demonstration are required. Cost analysis, societal impact, safety issues, evaluation of design alternatives and application of engineering principles will be emphasized.

**ECE 4985  Electrical Engineering Design**  
3.000 Credits  
Must be enrolled in one of the following Classes:  
Senior

Prerequisites: (COMP 270 or COMP 106 or COMP 220 or CPAS 40) and (ECE 317 or ECE 3171) and ECE 372 and (ECE 414 or ECE 415 or ECE 450 or ECE 460 or ECE 480 or ECE 4951)

This course is conducted as a guided project design course over a two-semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation and project demonstration are required. Cost analysis, societal impact, safety issues, evaluation of design alternatives, and application of engineering principles will be emphasized. A series of lectures on design issues will be presented in the first semester.

**ECE 4986  Computer Engineering Design**  
3.000 Credits  
Must be enrolled in one of the following Classes:  
Senior

Prerequisites: (COMP 270 or CPAS 40 or COMP 106 or COMP 220) and (ECE 317 or ECE 3171) and ECE 372 and ECE 375 and (ECE 471 or ECE 473 or ECE 478 or ECE 475)
This course is conducted as a guided project design course over a two-semester period, with the class divided into teams, each assigned a specific design project. Periodic progress reports, a final written report, an oral presentation, and application of demonstration are required. Cost analysis, societal impact, safety issues, evaluation of design alternatives and application of engineering principles will be emphasized. A series of lectures on design issues will be presented in the first semester.

**ECE 499 Internship/Co-op**
2.000 Credits
Must be enrolled in one of the following Classes:
- Senior

A four-month professional work experience period of the Engineering Internship Program, integrated and alternated with the classroom terms.

**Industrial and Manufacturing Systems Engineering (IMSE) COURSE OFFERINGS**

**IMSE 150 Computer Science I**
3.000 OR 4.000 Credits
Prerequisites: MATH 115 *
Co-requisites: IMSE 150L

This course provides a foundation for further studies in computer and information science. It emphasizes a structured approach to problem solving and algorithm development. Students learn principles of program design, coding, debugging, testing, and documentation. Student are introduced to the Unified Modeling Language for requirements analysis using use-cases and activity diagrams, an object-oriented programming language (C++), and the fundamentals of computer hardware, system software, and components.

**IMSE 200 Computer Science II**
3.000 OR 4.000 Credits
Prerequisites: MATH 115 and (CIS 150 or IMSE 150 or CCM 150)
Co-requisites: CIS 275 IMSE 200L

This course presents techniques for the design, writing, testing, and debugging of medium-sized programs, and an introduction to data structures (stacks, queues, linked lists) using the C++ programming language. C++ topics covered include pointers, templates, and inheritance. The principles of UML modeling are also introduced. This course will consist of three lecture hours and one two-hour laboratory.

**IMSE 255 Computer Programming for Eng.**
3.000 Credits
Prerequisites: ENGR 100 or MATH 105 or MPLS 113

Intermediate topics in computer programming: arrays, files, structured data types, pointers, functions. Overview of digital computer hardware and system software components: machine architecture, operating systems, computer networks, data security, and performance evaluation.

**IMSE 299 Internship (Co-op)**
3.000 Credits
Must be enrolled in one of the following Classes:
- Junior
- Senior
- Graduate

This is a Cooperative Education course. Students wishing to experience a work experience before graduation may elect to participate in the Cooperative Education Program (minimum of two terms). (F,W,S).

**IMSE 3005 Intro to Operations Research**
4.000 Credits
Prerequisites: (MATH 217 or MATH 227) and IMSE 317 *

This course introduces some basic techniques or operations research used in decision making and system performance evaluation in both deterministic and probabilistic environments. Topics in linear programming, especially the simplex method with duality theory and sensitivity analysis is included. Other topics include integer programming, deterministic dynamic programming, network problems, and PERT-CPM, discrete-time and continuous-time Markov chain models of random processes, queuing theory and applications. (YR)

**IMSE 317 Eng Probability and Statistics**
3.000 Credits
Prerequisites: MATH 116 or MPLS 215 or MATH 114

Set theory, combinatorial analysis, probability and axioms, random variables, continuous and discrete distribution functions, expectations, Chebychev's inequity, weak law of large numbers, central limit theorem, sampling statistics and distributions, point and interval estimation and linear regression. Three hours lecture.

**IMSE 334 Org of Hospital Systems**
3.000 Credits
Must be enrolled in one of the following classes:
- Junior
- Senior
- Graduate

The fundamental concepts of organizational behavior are explored. The interrelationships among personnel in an organization, and the functions and responsibilities of individuals are discussed. Topics studied include decision-making theory, organizational authority and adjunct responsibility, leadership and supervision. Particular emphasis is placed upon hospitals and the health care industry. Lectures are supplemented with actual case studies from the health care industry in which the student has the opportunity to apply problem-solving techniques to true-to-life situations. Three hours lecture.

**IMSE 350 Data Structures**
4.000 Credits
Prerequisites: (MATH 217 or MATH 227) and IMSE 317 *

This course focuses on data design and algorithm designs. Data design topics include object-oriented discussions of hashing, advanced tree structures, graphs and sets. Algorithm design topics include the greedy, divide-and-conquer, dynamic programming, backtracking, and branch-and-bound techniques. A significant discussion of algorithm complexity theory, including time and space trade-off and elementary computability theory is included.

**IMSE 351 Data Struc & Algorithm Anlysis**
3.000 Credits
Prerequisites: IMSE 255 or CIS 150 or IMSE 150 or CCM 150
Object-oriented design, programming, and analysis techniques review; structured programming concepts; data structures; algorithm design and analysis; lists, stacks, and queues; heaps, sorting, trees, graphs, and algorithm development utilizing modern languages, such as C++, Java.

**IMSE 352 Intro to File Processing**  
3.000 Credits  
Prerequisites: IMSE 200 and CIS 175  
File processing environment, storage media, sequential, random and indexed sequential files, inverted lists, multilists, tree structures, file control systems. Three hours lecture.

**IMSE 356 Real Time Computing**  
3.000 Credits  
Prerequisites: IMSE 150 or IMSE 255  
Introduction to real time computing concepts applicable to discrete systems. Fundamentals of real time hardware, operating systems and C programming language. Selected coverage of instrumentation, input/output modes, data conversion, single task and multitask programming. Two hours of lecture and three hours of laboratory per week.

**IMSE 381 Industrial Robots**  
3.000 Credits  
Must be enrolled in one of the following Classes:  
Junior  
Senior  
Graduate  
Prerequisites: MATH 115  
The course introduces students in engineering, management, and computer science to modern robot technology and the application of this technology to improve productivity in manufacturing and assembly operations. The emphasis will be on applications of robot technology to production problems rather than on the extensive theory of robotics.

**IMSE 382 Manufacturing Processes**  
4.000 Credits  
Prerequisites: ENGR 250 and (ME 265 or ME 260)  
This course introduces the students to the fundamentals and principles of manufacturing processes for engineering materials. It seeks to transfer an understanding of the application of principles of engineering materials and their influence on manufacturing processes. Topics covered include structure and manufacturing properties of metals, casting, heat treatments, bulk deformation processes, sheet metal working processes, processing of polymers and composites, surfaces and coating, powder metallurgy, machining and joining. Case studies of design for manufacturing and measurement of product quality; economical aspects and cost considerations in manufacturing systems will be studied. Three lecture hours and three laboratory hours.

**IMSE 390 Selected Topics I**  
3.000 Credits  
Study of topics selected from any of the areas of Industrial and Systems Engineering. May include design or laboratory research.

**IMSE 391 Selected Topics II**  
3.000 Credits  
Study of Advanced topics selected from any of the areas of Industrial and Systems Engineering. May include design or laboratory research.

**IMSE 398 Independent Study in IMSE**  
1.000 TO 3.000 Credits  
Must be enrolled in one of the following Colleges:  
Coll of Engineering & Comp Sci  
May not be enrolled in one of the following Classes:  
Graduate  
Sophomore  
Freshman  
Individual study design or laboratory in an area of interest to the student. Contents may be chosen from any of the areas of Industrial and Manufacturing Engineering. The student will submit a report on his or her project at the end of the term. Written permission of the instructor required. (F,W,S).

**IMSE 399 Internship**  
2.000 Credits  
Must be enrolled in one of the following Classes:  
Junior  
Senior  
Graduate  
A four-month professional work experience period of the Engineering Internship Program, integrated and alternated with the classroom terms.

**IMSE 400 Programming Languages**  
4.000 Credits  
Must be enrolled in one of the following Levels:  
Undergraduate  
Prerequisites: IMSE 350 or CIS 350 or CCM 350  
Systematic study of programming languages with regard to their implementation, structures, and use. Languages are compared with regard to their various data types, data structures, operations, control structures, programming environments, and ease of use in solving various programming problems.

**IMSE 421 Eng Economy and Dec Anlys**  
3.000 Credits  
Must be enrolled in one of the following Classes:  
Junior  
Senior  
Graduate  
Study of the concepts involved in the analysis of engineering management decisions, both short and long term. Time valued investments and the effects of depreciation and taxes in comparing alternatives are discussed. Specific attention is devoted to deterministic and probabilistic replacement policies for single and chain replacements of equipment. Basic elements of utility theory are introduced. Applications of decisions under risk, uncertainty, and of game theory to capital investment, bidding, and to competitive decisions are included.

**IMSE 437 Health Care Management**  
3.000 Credits  
Must be enrolled in one of the following Classes:  
Junior  
Senior  
Graduate  
This course is intended for those who have to deal with the administrative aspects of health care systems and not only the technical. The goal of the course is to provide the hospital staff
Role of information systems in organizations. Economic factors and social impact of information systems. Phases to design an information system: systems objectives and criteria establishment, fact investigation and analysis, feasibility study, output-input design, processing design, file and database design, safety and reliability considerations, detailed systems description, programming specifications, testing analysis and design skills will be assigned. A series of cases will be used in developing an information system. SQL will be used to develop data tables and access information. Three lecture hours and one three-hour laboratory. (W)

IMSE 456 Intro to Data Base Systems
4.000 Credits
Prerequisites: CIS 350 or CIS 350A or IMSE 351 or (ECE 370 and MATH 276)

An introduction to database system concepts and techniques. Topics covered include database environments, ER modeling, relational data model, object-oriented database, object-relational database, database design theory and methodologies, database languages, query processing and optimization, concurrency control, database recovery, and database security.

IMSE 457 Compiler Design
3.000 Credits
Prerequisites: IMSE 350 or CIS 350 or CCM 350

The design and construction of compilers and programming systems. Lexical scan; parsing techniques; code generation and optimization. Run-time organization; storage allocation. Applications of formal language theory in compiler design. Translator writing systems; XPL. Three one-hour lectures.

IMSE 458 Simulation in Systems Design
4.000 Credits
Prerequisites: (IMSE 300 or IMSE 3005) and IMSE 317

This course introduces digital simulation as a design and modeling tool. The fundamental techniques of constructing a simulation model and evaluating the results are studied. A computer simulation software is used (such as ARENA, ProModel, Witness, Simul8). Topics include random number and random variate generation, input and output data analysis, design of experiments and optimization of simulated systems, verification and validation, discrete and continuous simulation models, comparison of simulation modeling software, and applications of simulation in different industries. Students are asked to select problems of interest and present final project reports. Four lecture hours. (YR)

IMSE 4675 Six Sigma & Stat Proc Improv
4.000 Credits
Prerequisites: IMSE 317

Review of graphical methods, probability theory and statistics (stem-and-leaf plots, histograms, scatter diagrams, counting methods, axioms of probability, common discrete and continuous probability models, expectation, linear combinations, estimation, sampling distributions, confidence intervals, hypothesis testing, and A vs. B type of experimentation for both unpaired and paired data); introduce quality terminology in manufacturing and service industry contexts, study the theory, design and application of common statistical process control
models for variables and attributes; study process capability and
gauge and measurement capability methods; study the design
and analysis, both graphical and analytic, of statistically
designed experiments (one-way completely randomized designs,
and randomized, complete block designs); study the application
and analysis of two-level, factorial and fractional factorial
designs. Learn to apply and interpret analysis of variance to
above situations. Extensive analytic homework and applications
used throughout course to motivate material. Each student
completes an individual project of his/her own design, subject to
instructor approval, entailing a modeling application or
controlled experiment where the student collects the data. Four
hours lecture. (YR)

IMSE 4745  Facilities Design
4.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: Undergraduate level (COMP 270 or COMP
106 or COMP 220 or CPAS40) Minimum Grade of D and
Undergraduate level IMSE 3005 Minimum Grade of D and
   Undergraduate level IMSE 317 Minimum Grade of D and
Undergraduate level IMSE 421 Minimum Grade of D
   Analysis, planning and design of physical facilities utilizing
research, engineering and economic principles. Synthesis of
physical equipment and workers into an integrated system for
either service or manufacturing activities. Design of material
handling and storage systems. Layout of lean manufacturing
facilities. Design of atmospheric, electrical, lighting, and life
safety systems for a facility. Students are required to select
problems of interest and present design project reports. (F)

IMSE 4795  Prod, Inven Control & Lean Mfg
4.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: Undergraduate level (COMP 270 of COMP
106 or COMP 220 or CPAS40) Minimum Grade of D and
Undergraduate level IMSE 3005 Minimum Grade of D and
   Study of concepts involved in forecasting demand, inventory
control, MRP, JIT production, lean manufacturing, aggregate
scheduling, and project management. The application of
mathematical programming techniques, bottleneck analysis, and
lean techniques such as value stream mapping, error proofing,
cellular manufacturing, etc. are used in design and analysis of
production systems. Use of the computer programs in the design
and analysis of such systems. Students are asked to select
problems of interest and present final project reports. (OC)

IMSE 4815  Manufacturing Process II
4.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: (COMP 270 or COMP 220 or COMP 106 or
CPAS 40) and IMSE 382
   Co-requisites: IMSE 4675
   This course introduces the students to machining processes,
metal forming processes and molding and forming of plastics.
Metal cutting theory is emphasized including the mechanics of
metal cutting, cutting tools, measurement of tool life, selection
of cutting conditions, and chip control; theory and applications
of non-traditional manufacturing processes. Metal forming
theory is emphasized including formability of metals; analysis of
bulk and sheet metal forming processes as applied to practical
cases such as automobile manufacturing. Basic principles of
    plastic molding and forming processes of plastics, ceramics and
composites. (W)

IMSE 4825  Industrial Controls
4.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: Undergraduate level ME 265 Minimum
Grade of D
   Corequisites: Undergraduate level ECE 305 Minimum
Grade of D
   This course introduces the basics of calibration, error analysis,
and dynamic response characteristics of instrumentation.
Fundamentals of metrology include linear and angular
measurements, standards, gauges, machine tool accuracy, and
automation of inspection processes. The course also introduces
the principle aspects of computers and their applications in
system control, as well as principles of automation with
emphasis on manufacturing industries. Discussion of the
hardware and software associated with this task and other topics
such as integrated systems modeling, sensor technologies,
digital and analog signal processing and control, and
information communication are also included. Laboratory
exercises and projects are required. (F)

IMSE 4835  Comp.-Aided Pres Desgn & Mfg
4.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: IMSE 382
   This course focuses on the fundamentals of component and
system designs through the use of Computer-Aided Design
(CAD) tools. Issues related to the manufacture of molds, jigs
and fixtures are also introduced and Computer-Aided
Manufacturing (CAM) tools are used as means for the
production of these machine components. The principles of
design for manufacture and assembly as applied to tool and
machine design are also discussed. Computer-Aided Process
Planning (CAPP) tools, flexible manufacturing systems, and
information flow in manufacturing systems are also presented.
Hands-on experiments and course projects are required. (W)

IMSE 4845  CA Machine and Tool Design
3.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: IMSE 382 or ME 381
   Study of the fundamentals of machine tool design, cutting tools,
metal forming dies, and jig fixtures for practical applications in
machining and assembly. Principles of design for manufacture
and assembly as applied to tool and machine design. Laboratory
exercises and projects are required using computer-aided design
software. Two lecture hours and three laboratory hours.

IMSE 4865  Design for Assembly & Mfg
3.000 Credits
Must be enrolled in one of the following Levels:
   Undergraduate
   Prerequisites: IMSE 382
This course will cover topics in manufacturing with emphasis on the parallel product design and selection of specifications for processes. Topics included are the principles of concurrent engineering, geometric dimensioning and tolerancing (GD&T), process engineering, process planning, cost estimating, and design for manufacturing. Projects using computer tools are required on a team-oriented basis.

**IMSE 488 Metal Forming Processes**

3.000 Credits

- Must be enrolled in one of the following Levels: Undergraduate
- Prerequisites: IMSE 382

This course focuses on fundamentals of metal forming processes; mechanics of metal forming; formability of materials; tool and die design; design for manufacture; and economic aspects of the process. Emphasis is placed on analysis of bulk and sheet metal forming processes as applied to practical cases such as automobile manufacturing. Laboratory and course project are required.

**IMSE 489 Robotics Systems Simulation**

3.000 Credits

- Must be enrolled in one of the following Classes: Senior Graduate

The course emphasizes the fundamentals of the design of robotics systems with the aid of robot simulation technology; structure and basic components of robots and robotics manufacturing workcells; control, kinematics, and dynamics of robots and manufacturing devices; robot accuracy and calibration of robot motion; applications of robots in manufacturing such as spot welding, arc welding, machining, assembly and CMM; robot simulation software such as ROBCAD or IGRIP. Course project is required. Available for graduate credit. (YR)

**IMSE 490 Selected Topics**

3.000 Credits

Individual or group study, design or laboratory research in a field of interest to the student. Topics may be chosen from any of the areas of industrial and systems engineering including management, work measurement, methods, organization, industrial sciences, industrial mathematics, systems and procedures. If preliminary arrangements are made, the work internship periods can be used to formulate the problem and gather data. Completion of the analysis and submission of a report shall be done during the academic periods under the supervision of a faculty member or members. The student should be prepared for both a written and oral presentation of the report. This course is highly recommended as a technical elective. Permission of department.

**IMSE 491 Directed Studies in IMSE**

1.000 TO 3.000 Credits

Group study of contemporary topics in industrial and systems engineering and general systems design. Course may be elected for credit more than once under different instructors. Permission of department.

**IMSE 4951 Design Project I**

2.000 Credits

- Must be enrolled in one of the following Levels: Undergraduate
- Must be enrolled in one of the following Colleges: Coll of Engineering & Comp Sci

Must be enrolled in one of the following Major fields of study:

- Industrial & Systems Engin
- Manufacturing Engineering

Must be enrolled in one of the following Classes: Senior

- Prerequisites: ENGR 400 *

Design of a system to produce or service using knowledge gained in previous courses in the program. Two two-hour lecture/lab periods. (F,W,S)

**IMSE 4952 Design Project II**

2.000 Credits

- Must be enrolled in one of the following Levels: Undergraduate
- Must be enrolled in one of the following Colleges: Coll of Engineering & Comp Sci

Must be enrolled in one of the following Major fields of study:

- Industrial & Systems Engin
- Manufacturing Engineering

Must be enrolled in one of the following Classes: Senior

- Prerequisites: IMSE 4951

Design of a system to produce or service using the knowledge gained in previous courses in the program. It is the continuation of the project started in Design Project I course. (F,W,S)

**IMSE 498 Guided Study in IMSE**

1.000 TO 3.000 Credits

- Must be enrolled in one of the following Levels: Undergraduate
- Must be enrolled in one of the following Colleges: Coll of Engineering & Comp Sci

May not be enrolled in one of the following Classes: Sophomore Freshman

- Prerequisites: ENGR 400 *

Individual study, design, or laboratory research in a field of interest to the student. Content may be chosen from any of the areas on industrial and manufacturing engineering. The student will submit a report on his or her project at the close of the term. Permission of department. (F,W,S).

**IMSE 499 Internship**

2.000 Credits

- Must be enrolled in one of the following Levels: Undergraduate
- Must be enrolled in one of the following Classes: Senior

A four-month professional work experience period of the Engineering Internship Program, integrated and alternated with classroom terms.

**IMSE 500 Models of Oper Research**

3.000 Credits

- Must be enrolled in one of the following Classes: Graduate

The method of mathematical modeling and its application to decision-making problems in organizations. Some widely used models and techniques: linear programming, queuing, inventory, and simulation.

**IMSE 514 Multivariate Statistics**
Linear statistical models used in simple and multiple regression, and analysis of variation. Principles and techniques of principle component analysis are studied and applied to business and engineering problems using statistical computer software. (YR)

**IMSE 521 Mfg Cost Estimation & Control**
3.000 Credits
Must be enrolled in one of the following classes:
Graduate

In this course, concepts of strategic costing in product development and manufacturing are introduced. Engineering economy techniques are used in the study of life cycle cost elements. Equipment acquisition and replacement justification methods under risk and uncertainty are presented.

**IMSE 533 Manufacturing Systems**
3.000 Credits
Must be enrolled in one of the following Classes:
Graduate

This course introduces methodologies and tools for modeling, design and operations planning of manufacturing systems. Topics include introduction to integrated manufacturing systems, manufacturing system and data modeling methodologies, process planning, group technology, manufacturing system layout, scheduling, push and pull production systems. Industrial case studies are presented and discussed.

**Mechanical Engineering (ME)**

**COURSE OFFERINGS**

**ME 230 Thermodynamics**
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Bioengineering
Electrical Engineering
Engineering
Industrial & Systems Engin
Manufacturing Engineering
Mechanical Engineering
Prerequisites: PHYS 150 and (MATH 116 or MPLS 215) and (CHEM 134 or CHEM 144)

The course is a general introduction to thermodynamics with emphasis on engineering applications. Properties of pure substances. Work and heat. The first and second laws of thermodynamics. Entropy and efficiency. Applications to systems and control volumes. Mixtures of gases and vapors, air conditioning. Introduction to cycles. This course will become the first in a two-course series for mechanical engineering students, and will also be elected as a terminal course by IMSE students. Four hours lecture.

**ME 260 Design Stress Analyses**
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Prerequisites: PHYS 150 and (ENGR 216 or ME 215) and ME 230 and ME 260

An introduction to statics and stress analyses with emphasis on both mechanics fundamentals and design applications. (F,W,S).

**ME 265 Applied Mechanics**
4.000 Credits
Prerequisites: PHYS 150 and (MATH 205 * or MPLS 215 or MATH 215 *)

A comprehensive introduction to the science of applied mechanics, encompassing a study of forces and the stresses, deflections, and motions which they produce. Topics include the concept of equilibrium and static force analysis; the mechanics of deformable bodies (internal stresses, constitutive relationships, strains, deflections, flow, failure); statics of indeterminate systems; kinematics; kinetics of particles, systems of particles, and rigid bodies. Four hours lecture. (F,W,S).

**ME 290 Spec Topics in Mech Engin**
1.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
Junior
Senior
Graduate

Special topics in mechanical engineering selected according to students' interest and availability of instructors and equipment.

**ME 299 Internship (Co-op)**
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: (ENGR 216 or ME 215) and ME 230 and ME 260

This is a Cooperative Education course. Students wishing to experience a work experience before graduation may elect to participate in the Cooperative Education Program (minimum of two terms). (F,W,S).

**ME 325 Thermal Fluid Sciences I**
4.000 Credits
Prerequisites: (ENGR 216 or ME 215) and ME 230 and ME 260


**ME 3251 Applied Thermodynamics**
2.000 Credits
Prerequisites: ME 230 and ENGR 216

Power and refrigeration cycles. Thermodynamic relations. Ideal gas mixtures and psychrometrics. Reacting ideal gas mixtures. (F,W,S)
ME 3252 Fluid Mechanics
2.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Major fields of study:
Mechanical Engineering
Prerequisites: ME 230 and ENGR 216

Fluid properties. Fluid statics. Fluid flow kinematics. Integral fluid flow analyses; the conservation laws - mass, energy, momentum. Introduction to differential analysis of fluid flow. Diversional analysis. (F,W,S)

ME 345 Engineering Dynamics
4.000 Credits
Prerequisites: ME 215 or ENGR 216 and ME 260

A comprehensive treatment of statics and the kinematics and kinetics of particles, systems of particles, and rigid bodies from a Newtonian view point utilizing rigorous vector techniques. The time-dependent description of kinematical quantities and of dynamic forces and moments. Matrix methods and digital computer techniques.

ME 349 Instrument & Measurement Systems
3.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: (ME 265 or ME 345) and ECE 305*
Co-requisites: ME 349L

Modern instrumentation systems are considered beginning with generic issues such as calibration, error analysis, and dynamic response characteristics of instrumentation. Specific transducer systems (temperature, force and pressure, etc.) are presented, as well as interfacing techniques and elementary signal processing. Microprocessors are introduced for use in measurement and control applications. (F,W,S).

ME 3601 Des and Analy of Mach Elem
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Mechanical Engineering
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: (ENGR 216 or ME 215) and ME 260

Application of fundamental mechanics to analysis and design of elementary mechanical components and systems. Topics include: stress and strain analysis; experimental measurement; stress concentration; failure theories; safety factor; fatigue; fracture; combined loading; impact; buckling; energy methods. Components considered: fasteners; springs; bearings; gears; beams; shafts and other power transmission components. Numerical techniques. (F,W,S).

ME 364 Prob, Stats, and Rel in Mach D
3.000 Credits
Prerequisites: (MATH 217 or MATH 227) and ME 260 and ENGR 216 and ENGR 216

Introduction to planned experiments in machine design and mechanical metallurgy with emphasis on orthogonal test programs with small blocks. Classical statistical analyses (e.g., analysis of variance for randomized complete block and split-plot designs) as well as computer intensive analyses (e.g., permutation and randomization tests). Maximum likelihood analysis for censored and uncensored life data and for strength (quantal response) data. Systems reliability in machine design.

ME 371 Heat Transfer
3.000 Credits
Prerequisites: ME 320 and ECE 305 *


ME 375 Thermal Fluid Sciences II
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Sophomore
Senior
Junior
Prerequisites: (ME 325 or ME 320) and ECE 305 *


ME 379 Thermal-Fluids Laboratory
3.000 Credits
Prerequisites: (ME 3251 or ME 3252 or ME 325 or ME 320) and (ME 349 or ME 348) and (ME 371 * or ME 375 *) and (COMP 270 or COMP 106 or CPAS 40 or COMP 220)

An experimental investigation of thermodynamic, fluid mechanic, and heat transfer principles. Students will learn about thermal-fluids instrumentation and conduct experiments. In addition, they will design their own experiments to demonstrate their understanding of the principles. (F,W,S).

ME 381 Manufacturing Processes I
4.000 Credits
Prerequisites: ENGR 250 and (ME 260 or ME 265)

This course introduces the students to the fundamentals and principles of manufacturing processes for engineering materials. It seeks to transfer an understanding of the application of principles of engineering materials and their influence on manufacturing processes. Topics covered include structure and manufacturing properties of metals, casting, heat treatments, bulk deformation processes, sheet metal working processes, processing of polymers and composites, surfaces and coating, powder metallurgy, machining and joining. Case studies of
design for manufacturing and measurement of product quality; economical aspects and cost considerations in manufacturing systems will be studied. Three lecture hours and three laboratory hours.

**ME 399 Internship (Co-op)**
2.000 Credits
Must be enrolled in one of the following Classes:
- Junior
- Senior
- Graduate

A four-month professional work experience period of the Engineering Internship Program, integrated and alternated with the classroom terms.

**ME 410 Finite Element Method wth Appl**
3.000 Credits
Prerequisites: ME 345 and (ME 360 or ME 3601) and ME 375

A presentation of the basic concepts and fundamentals of the Finite Element Method of Analysis in general, followed by applications to both continuum and field problems. Selected areas of application: dynamics and vibration including wave propagation; acoustics; fluid mechanics including film lubrication and ground water flow; heat transfer; elasticity and stress/strain analysis including structures; electrical field problems including electrostatics and electromagnetics. Two lectures and a comp/rec. period. (F,W,S).

**ME 4191 Structural Mech & Design**
4.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate
- Coll of Engineering & Comp Sci

Must be enrolled in one of the following Classes:
- Senior
- Junior
Prerequisites: ME 345 and (ME 3601 or ME 360)

A presentation of the methods of plane elasticity to solve a variety of problems arising in the analysis and design of structures. Review of the concepts of plane stress and strain, basic equations of plane elasticity and problems, energy methods approximate/numerical techniques, elastic-plastic bending and torsion, instability of columns and frames. (F,W,S).

**ME 4201 Design of Turbomachinery**
4.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate
- Coll of Engineering & Comp Sci

Must be enrolled in one of the following Classes:
- Senior
- Junior
Prerequisites: ME 325 or ME 320

Principles of turbomachinery design and practices. Euler's equation for energy transfer calculations. Two- and three-dimensional velocity diagrams. Aerodynamics of wind turbines. Wind turbine design and control. Power generation of wind turbines, wind energy system economics and environmental impacts. Design procedures and characteristics of compressors, fans and blowers. Basic design calculations and selection of pumps. A turbomachinery design project by using the theory learned from the course may be required.

**ME 4202 Design Turbo. and Wind Gen.**
4.000 Credits
Must be enrolled in one of the following Colleges:
- Coll of Engineering & Comp Sci

May not be enrolled in one of the following Classes:
- Freshman
Prerequisites: ME 375

Principles of turbomachinery design and practices with emphasis on wind power generation. Euler's equation for energy transfer calculations. Two- and three-dimensional velocity diagrams. Aerodynamics of wind turbines. Wind turbine design and control. Power generation of wind turbines, wind energy system economics and environmental impacts. Design procedures and characteristics of compressors, fans and blowers. Basic design calculations and selection of pumps. A turbomachinery design project by using the theory learned from the course may be required.

**ME 4301 Computational Thermo-Fluids**
3.000 Credits
Must be enrolled in one of the following Colleges:
- Coll of Engineering & Comp Sci

Must be enrolled in one of the following Classes:
- Senior
Prerequisites: ME 325 and ME 375


**ME 4361 Design of HVAC Systems**
4.000 Credits
Must be enrolled in one of the following Levels:
- Undergraduate

Must be enrolled in one of the following Colleges:
- Coll of Engineering & Comp Sci

Must be enrolled in one of the following Classes:
- Senior
- Junior
Prerequisites: (ME 325 or ME 320 or ME 3251 or ME 3252) and (ME 375 *) or (ME 371 *)

A comprehensive treatment of the design principles and practices in the heating, ventilating, and air conditioning. Psychrometrics, design loads, distribution systems, equipment selection.

**ME 442 Control Syst Anly and Design**
4.000 Credits
Prerequisites: ECE 305 and ME 345
Co-requisites: ME 442L

ME 4461 Mech Vibration & Noise Control
4.000 Credits
Must be enrolled in one of the following Levels:
Undergraduate
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ME 345 and (ME 349 or ME 348 *)
Fundamentals of mechanical vibration and principles of noise control. Use of transducers and instruments to conduct sound and vibration measurements. Free and forced vibration in single and multiple degrees-of-freedom systems, damping, eigenvalues, eigenvectors, frequency response function, modal analysis, description of sound fields, acoustical materials and material testing, acoustics of rooms and enclosures, sound quality, and principles of noise control. Students will be required to conduct either a vibration or a noise control project. Two one-and-one-half hour lectures and one three-hour laboratory. (F).

ME 4471 Solar Energy Sys Analy&Design
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Mechanical Engineering
Must be enrolled in one of the following Classes:
Senior
Prerequisites: ME 325 and ME 375 *
The course introduces students to the fundamentals of solar energy conversion and solar energy systems. Principles in thermodynamics and heat transfer required to understand the solar energy use is reviewed. Design of different types of solar energy systems are explored and assessed. Issues relating to the practical implementation of solar energy will also be considered.

ME 452 Sustainable Energy & Environ
4.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Classes:
Senior
Prerequisites: ME 325 and ME 375 *
This course introduces students to the fundamentals of energy sources and their environmental impacts. It covers a wide range of conventional and alternative energy sources, which includes renewable and presents the tools for assessing their sustainability and environmental impacts. It also reviews issues related to energy storage, transportation and distribution, and challenges and future opportunities.

ME 4521 Intro Sust Energy Systems
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci
Must be enrolled in one of the following Major fields of study:
Mechanical Engineering
Must be enrolled in one of the following Classes:
Senior
Junior
Prerequisites: ME 375
The course provides an overview of energy technology from a broad perspective that encompasses technical and environmental aspects. It covers a wide range of traditional and alternative energy sources and presents assessments of their availability, sustainability, and environmental impacts as well as evaluation of their potential role in solving the global energy problem.

ME 460 Design for Manufacturing
3.000 Credits
Prerequisites: (ME 360 or ME 3601) and ME 381
Design decisions based on manufacturability and process-property relationships. Design for assembly. Manufacturing tolerances and quality control methods including NDT. Design methodology used for product development.

ME 467 Senior Design I
3.000 Credits
Prerequisites: ME 330 and ME 345 and ME 360 and ME 371
A guided design project course with emphasis on decision-making process associated with establishing alternatives and evaluation procedures to synthesize designs. Students will propose design projects and work in teams. Written and oral presentations will be required at the close of the term.

ME 4671 Senior Design I
4.000 Credits
Prerequisites: ME 330 and ME 345 and ME 360 and ME 371 *
A guided design project course with emphasis on the decision-making process associated with establishing alternatives and evaluation procedures to synthesize designs. Students propose design projects and work in teams to produce analytical designs, conduct evaluative experiments, and construct a physical design prototype. Engineering ethics and responsibility. Written and oral presentations are required at the close of the term. (F,W,S).

ME 469 Senior Design II
1.000 TO 4.000 Credits
Prerequisites: ME 4671
Student teams develop mechanical or interdisciplinary design projects, or continue projects begun in ME 4671. Work includes mechanical engineering design, and could possibly include fabrication and testing. Projects can involve efforts by interdisciplinary teams. Written and oral presentations are required.

ME 472 Prin & Appl of Mechatronic Sys
4.000 Credits
Prerequisites: ME 442 or (ECE 460 and ME 265) or (ME 345 and ECE 460)
This course provides the student with hands-on interdisciplinary experience of mechatronic systems, which integrate mechanical, electrical/electronic components with computer and microprocessors to design a high performance system. Subjects will be covered including Mechanical and Electrical Actuator
Systems, Digital Transducers and Modulators, Microcomputers and Microcontrollers Interfacing Actuators using graphic programming techniques, Programmer Logic Controllers (PLC), and Modeling of Fluid Systems. Laboratories form the core of the course. They cover microprocessor controlled mechanical actuator system for motion controls, materials handling, PLC programming and fluid power systems. The labs make extensive use of Simulink, a MATLAB toolbox, Mikro - C and/or Arduino. Each student builds control circuits on a breadboard kit to simulate a real operation. Student will be required to perform a course design project with mechatronic application in nature.

ME 481 Manufacturing Processes II
3.000 Credits
Prerequisites: ME 381

A study of casting, welding, plastic forming, and machining of materials; analysis of forces, energy requirements, and temperature effects; design specifications economically obtainable in terms of dimensional accuracy, surface finish, and material properties, functional characteristics of equipment. Two lectures and a laboratory.

ME 483 Dsgn Cons in Poly and Comp Mat
3.000 Credits
Prerequisites: ME 360 or ME 3601

Physical and mechanical behavior of unreinforced and reinforced (composite) polymeric materials in relation to their applications in modern technology. Emphasis is given to the design considerations with these materials in contrast to those with metallic materials. Time-dependent properties, such as creep and stress relaxation, are considered. Manufacturing methods are covered. Three lectures/recitation.

ME 484 Manufacturing Poly Comp Mat
3.000 Credits
Prerequisites: ME 381 or IMSE 382

This course will consider the manufacturing processes for production of plastics and composite parts. The emphasis will be on manufacturing principles that are based on rheology, polymer flow and transport phenomena. Design considerations and quality control techniques for manufacturing plastic and composite parts will also be covered.

ME 490 Directed Design Project
1.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
Senior Graduate
Prerequisites: ME 360 or ME 381 or ME 425 or ME 464

Design project involving not only design but also analysis, fabrication and/or testing. Topics may be chosen from any of the areas of mechanical engineering. Students who have taken ME 425 and ME 464 will be encouraged to take this course. The student will submit a report on his or her project and give an oral presentation at the close of the term. (F,W,S).

ME 491 Directed Research Problems
1.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
Senior Graduate

Special problems selected for laboratory or library investigation with intent of developing initiative and resourcefulness. (F,W,S).

ME 492 Guided Study in Mech Eng
1.000 TO 3.000 Credits
Must be enrolled in one of the following Classes:
Senior Graduate

Individual study, design or laboratory research in a field of interest to the student. Topics may be chosen from any of the areas of mechanical engineering. The student will submit a report on his or her project at the close of the term. (F,W,S).

ME 493 Advanced Vehicle Energy Sys
3.000 Credits
Must be enrolled in one of the following Colleges:
Coll of Engineering & Comp Sci

Must be enrolled in one of the following Classes:
Senior Graduate
Prerequisites: ME 325 * and ECE 305 *

This course will introduce the advanced energy conversion systems in automotive vehicles and cover the fundamentals, characteristics, and design consideration of the energy systems. The topic includes using alternative fuels in internal combustion engines, advanced power train systems in hybrid, electric, and fuel cell vehicle, and exhaust energy recovery systems.

ME 496 Internal Combustion Engines I
2.000 TO 3.000 Credits
Prerequisites: ME 320 and (ME 330 or ME 325)

Comparison of characteristics and performance of several forms of internal combustion engines including the Otto and diesel types of piston engines and the several types of gas turbines; thermodynamics of cycles, combustion, ignition, fuel metering and injection, pollution from engines and modeling techniques. Lectures, theory demonstrations, and experiments.

ME 4981 Automotive Engineering
4.000 Credits
Must be enrolled in one of the following Major fields of study:
Mechanical Engineering
Must be enrolled in one of the following Classes:
Senior Junior
Prerequisites: ME 345 and (ME 360 or ME 3601)

Analysis of vehicle performance in terms of acceleration, gradability, speed, fuel economy, ride comfort, stability and safety. Engine-transmission compatibility and matching. Fundamental vehicle dynamics. Computer modeling and simulation of vehicle systems by numerical techniques. Transmission ratio and torque analysis. Design of vehicle systems such as brakes, suspensions, drive line components, steering mechanisms and other subsystems. Four hours lecture. (F,W).

ME 499 Internship
2.000 Credits
Must be enrolled in one of the following Classes:
Senior Graduate

A four-month professional work experience period of the Engineering Internship Program, integrated and alternated with the classroom terms.
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