The purpose of this bulletin is to provide information about CMU's academic programs available in the 2007-08 academic year and information concerning admissions, academic regulations and requirements, services available to students, and CMU staff and faculty.

Students are responsible for ensuring that all requirements for graduation have been met. It is expected that students will regularly discuss their plans of study with academic advisors. Central Michigan University reserves the right to modify curricula, rules, policies, fees, program requirements, and courses offered and other information contained in this Bulletin at any time, without notice. The provisions of this bulletin do not constitute a contract, express or implied.

CMU, an AA/EO institution, strongly and actively strives to increase diversity and provide equal opportunity within its community.

http://www.cmich.edu/aaeo/
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President’s Welcome

Welcome to Central Michigan University! CMU is committed to engaging undergraduate students in learning, research, clinical work, diversity-related opportunities, and projects designed to create relationships between what is learned in the classroom and the difference you plan to make in the world.

CMU’s vision plan, CMU 2010, along with a number of other initiatives, is motivating the university community to raise academic standards and engage students in critical thinking, problem solving, discovery, and communication. Study abroad, student volunteerism, internships, and cooperative learning experiences also are hallmarks of a CMU education.

CMU embraces the major role it plays in improving quality of life for all people. For more than 100 years, CMU’s strong student-centered commitment to learning and teaching has promoted a creative environment and focused on academic quality in the classroom, clinic, and research laboratory. CMU’s professors enhance this commitment by seeking new ways to engage students in important research, creative work and civic engagement.

CMU’s commitment to provide individual attention to students complements the impressive breadth and depth of CMU’s academic and extracurricular programs. More than 200 professionally focused programs in business administration, communication, fine arts, health professions, humanities, social and behavioral sciences, natural sciences, teacher education, engineering, and more, are available to you.

You selected your university wisely. You will experience superior learning opportunities, work closely with professors and other professionals in a creative and innovative academic environment, and prepare to compete successfully in an increasingly complex world, whether moving on to graduate education or directly into your chosen profession. On behalf of the CMU community, best wishes in your CMU experience and beyond.

Sincerely,

Michael Rao, Ph.D.
President and Professor
Central Michigan University
General Information

Board of Trustees

Mr. Jeffrey R. Caponigro, Bloomfield Hills 2008
Ms. Stephanie Comai, Ann Arbor 2010
Mr. Brian W. Fannon, Novi 2014
Ms. Jacqueline N. Garrett, Detroit 2014
Dr. Marilyn French Hubbard, Bloomfield Township 2012
Dr. Sam R. Kottamasu, Saginaw 2012
John G. Kulhavi, White Lake 2008
Gail F. Torreano, Northville 2010

Administration 2008

Michael Rao (2000)* President of the University; B.A., University of South Florida; Ph.D., University of Florida
Julia E. Wallace (2008) Executive Vice President and Provost; B.S., State University of New York College at Oswego; M.A., State University of New York at Binghamton; Ph.D., State University of New York at Binghamton; M.S., University of Iowa
Karen I. Adams (2002) Dean, College of Education and Human Services; B.A., University of Texas-Austin; M.Ed. and M.A., University of Virginia; Ed.D., University of South Carolina
David A. Burdette (2008) Vice President for Financial and Administrative Services; B.B.A., University of South Florida; M.B.A., Suny at Buffalo
Raymond L. Christie (1998) Vice Provost/Academic Administration; B.A., Saginaw Valley State University; M.B.A., Central Michigan University; Ph.D., Georgia State University
Roger L. Coles (1973) Interim Dean, College of Graduate Studies; B.A., Western Washington State College; M.A., Central Michigan University; ED.D., Columbia Pacific University
Ian Davison (2008) Dean, College of Science and Technology; B.Sc., University of London; Ph.D., University of Dundee
D. Michael Fields (2006) Dean, College of Business Administration; B.S.B.A., University of Arkansas; M.B.A., University of Arkansas; Ph.D., University of Arkansas
Denise O’Neil Green (2007) Associate Vice President for Institutional Diversity, B.A., University of Chicago; M.A., Princeton University; Ph.D., University of Michigan
Merodie A. Hancock (2007) Vice Provost for Institutional Diversity, B.A., University of Chicago; M.A., Princeton University; Ph.D., University of Michigan
Janine Janosky (2007) Vice Provost for Research, Research and Sponsored Programs; B.A., Duquesne University; M.A., Marshall University; Ph.D., University of Pittsburgh
Michael A. Leto (1998) Vice President for Development and Alumni Relations; B.A., Ball State University
Thomas J. Masterson (1999) Interim Dean, The Herbert H. and Grace A. Dow College of Health Professions; B.A., University of Wisconsin at Madison; M.A. University of Wisconsin at Madison; Ph.D., University of Wisconsin at Madison
Thomas J. Moore (1988) Dean of Libraries; A.B., Belmont Abbey College; M.A., State University of New York, Binghamton; M.S.L.S., Syracuse University
Roger Rehm (1975) Vice President/Technology/CIO; B.M., M.M., Cleveland Institute of Music
Catherine Ann Riordan (2000) Vice Provost/Academic Affairs; B.S., Eastern Michigan University; Ph.D., State University of New York at Albany
Bruce K. Roscoe (1980) Dean of Students; B.S.H.E., Ph.D., University of North Carolina at Greensboro
Vice President for Finance and Administrative Services;
E. Gary Shapiro (1978) Dean, College of Humanities and Social and Behavioral Sciences; A.B., Wayne State University; A.M., Ph.D., University of Michigan
Kathleen M. Wilbur (2002) Vice President for Government Relations and Public Affairs; B.A., Michigan State University

*The year in parentheses indicates the date first employed by the university.
### Summer Sessions

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<th>2008</th>
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<tr>
<td></td>
<td>May 5-13</td>
<td>May 11-19</td>
<td>May 10-18</td>
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#### First Session (Six Weeks)

<table>
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<tr>
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<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tbody>
<tr>
<td>Classes Begin</td>
<td>May 12</td>
<td>May 18</td>
<td>May 17</td>
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<td>Memorial Day Recess</td>
<td>May 26</td>
<td>May 25</td>
<td>May 31</td>
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<tr>
<td>Classes End</td>
<td>June 19</td>
<td>June 25</td>
<td>June 24</td>
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#### Second Session (Six Weeks)

<table>
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<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tr>
<td>Classes Begin</td>
<td>June 23</td>
<td>June 29</td>
<td>June 28</td>
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<tr>
<td>Independence Day Recess</td>
<td>July 4</td>
<td>July 3</td>
<td>July 5</td>
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<tr>
<td>Classes End</td>
<td>July 31</td>
<td>August 6</td>
<td>August 5</td>
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### Fall Semester

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<tr>
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<td>Aug. 18-29</td>
<td>Aug. 24-Sept. 4</td>
<td>Aug. 23-Sept. 3</td>
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| Classes Begin | Aug. 25 | Aug. 31 | Aug. 30 |
| Labor Day Recess | Sept. 1 | Sept. 7 | Sept. 6 |
| Thanksgiving Recess | Nov. 26-Dec. 1 | Nov. 25-30 | Nov. 24-29 |

5:00 p.m. Wed - 7:30 a.m. Mon.

| Classes End | Dec. 6 | Dec. 12 | Dec. 11 |
| Examination Week | Dec. 8-12 | Dec. 14-18 | Dec. 13-17 |
| Semester Ends | Dec. 13 | Dec. 19 | Dec. 18 |
| Commencement | Dec. 13 | Dec. 19 | Dec. 18 |

### Spring Semester

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<tr>
<th>Phase II Registration-Drop/Add</th>
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<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td></td>
<td>Jan. 5-16</td>
<td>Jan. 4-15</td>
<td>Jan. 3-14</td>
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| Classes Begin | Jan. 12 | Jan. 11 | Jan 10 |
| Martin Luther King Jr. Day (no classes) | Jan. 19 | Jan. 18 | Jan. 17 |
| Spring Recess | March 7-16 | March 6-15 | March 5-14 |

1:00 p.m. Sat -7:30 a.m. Mon.

| No Classes | April 30-May 1 | April 29-30 | April 28-29 |
| Classes End | May 2 | May 1 | April 30 |
| Examination Week | May 4-8 | May 3-7 | May 2-6 |
| Semester Ends | May 9 | May 8 | May 7 |
| Commencement | May 9 | May 8 | May 7 |

See [http://www.registrars.cmich.edu/calendars/default.htm](http://www.registrars.cmich.edu/calendars/default.htm) for updates to the calendar.
Central Michigan University is in its second century as an institution of higher learning focused on creating a caring and engaging environment for students.

Central opened its doors in 1892 as the Central Michigan Normal School and Business Institute. At that time, few of the state’s teachers received any formal training in teaching. School founders, conscious of the poorly prepared teacher applicants seeking positions in Mount Pleasant’s schools, made teacher training their mission in founding the state’s second normal school.

Thirty-one students attended classes in second-floor rooms over an office on the corner of Main and Michigan streets in downtown Mount Pleasant. Most students at the time were eighth-grade graduates, attending the “Normal” for a few weeks or months prior to beginning their careers as teachers. Within the first two years, land was acquired and a $10,000 Normal School Building was constructed where Warriner Hall now stands.

In 1895, the Michigan State Board of Education assumed control of the school, which had grown to 135 students, renaming it Central Michigan Normal School. The school assembled its first football squad of 15 men in 1896, only to be defeated by Alma High School in the season’s sole game. In the same year, Central became state supported. Within a few years, Central’s women were competing in inter-school basketball.

By 1918, the campus consisted of 25 acres with five buildings, one of which — Grawn Hall — is still in use, though substantially remodeled. Enrollment had more than tripled in 10 years to 450 students.

Central’s educational offerings also were growing more comprehensive. Students completing two years of schooling beyond high school began receiving their life teaching certificates in 1903. The school was accredited by the North Central Association for the first time in 1915. In 1918, the Bachelor of Arts degree was first awarded, followed by the Bachelor of Science in 1927. Central’s first graduate courses, supervised by the University of Michigan, were offered in 1938. A fire destroyed the school’s main building in 1925, and Warriner Hall was built to replace it. Prior to World War II, the school’s name changed again — first to Central State Teachers College, then to Central Michigan College of Education. Enrollment rose to more than 1,800 students.

In the post-war years of 1949-59, the first large student residence halls were built and Central’s first master’s degree was accredited by the North Central Association.

On June 1, 1959, with 40 buildings standing on a 235-acre campus and an enrollment of 4,500 students, Central was renamed Central Michigan University, a designation that reflected growth in the complexity of the school’s academic offerings as well as its physical growth in the post-war period.

Through the sixties, enrollment grew from 4,500 to more than 14,000 students. The enormous rate of growth caused significant change in the character of the university. Buildings were constructed on the land south of Preston Street, more than doubling the physical size of the campus.

The gift of Neithercut Woodland near Farwell and the establishment of CMU’s Biological Station on Beaver Island gave the university valuable facilities for specialized studies.

The number and variety of programs also grew. Programs in business and communications were developed and expanded. In 1971, the Institute for Personal and Career Development was established to provide academic programs for students with limited access to traditional forms of education. The Specialist in Education degree marked CMU’s entry into training beyond the master’s degree level, which now includes specialist degrees in several disciplines and eight doctoral degrees. It was during this time that the university began to recruit faculty representing diverse geographic and institutional backgrounds and areas of expertise. The standards set for teaching and research in this 15-year period continue to shape the university today.

Presidents of the University
Charles F.R. Bellows 1892-1896
Charles McKenny 1896-1900
Charles T. Grawn 1900-1918
Eugene C. Warriner 1918-1939
Charles L. Anspach 1939-1959
Judson W. Foust 1959-1968
William B. Boyd 1968-1975
Harold Abel 1975-1985
Arthur E. Ellis 1985-1988
Edward B. Jakubauskas 1988-1992
Michael Rao 2000 -
Did you know?
Central Michigan University is nationally recognized for academic excellence and dedicated faculty members who offer students personal attention in a hands-on learning environment.
• Fourth largest enrollment of Michigan’s public universities, with nearly 28,000 students, and the third largest number of applications of Michigan’s 15 public universities
• Eleven new academic and residential buildings in 10 years, including the new Education Building opening in 2009
• One of nine universities nationwide to receive the Katrina Compassion Award
• Four professors named Michigan Professor of the Year by the Carnegie Foundation for the Advancement of Teaching—more than any Michigan school
• Ranked 10th most productive research university of its size in the U.S. (2007 Academic Analytics report)
• More than 60 percent of CMU students volunteer, exceeding the national average
For more information, visit www.cmich.edu.

The CMU 2010 Vision
In 2005, the university asked students, faculty, staff, alumni, and friends to help create CMU 2010, a strategic five-year plan to fulfill the vision that CMU will be a “nationally prominent university known for integrity, academic excellence, research and creative activity, and public service.”
CMU 2010 outlines five institutional priorities and sets aside $1 million each fiscal year to support projects that strengthen:
1. Teaching and learning
2. Diversity and global perspectives
3. Research and creative activity
4. Service for the public good
5. CMU’s culture of integrity
For more information about CMU 2010, visit www.planning.cmich.edu.

The Campus
CMU’s home is Mount Pleasant, home to 26,000 people and growing. Our students come from every county in Michigan and many other states and countries. Our park-like campus is a relaxing place to study, meet up with friends over a cup of coffee, or enjoy the serene beauty of nature.
Campus life includes events like plays, concerts, Division I sporting events, lectures, art exhibits, and more.
To view upcoming events, visit http://events.cmich.edu/
Just outside campus, nature buffs enjoy the 80-mile-long Chipewa River, which runs through town, and the city’s seven parks are loved by people of all ages. Mission and nearby streets feature many popular big box stores and chain restaurants; downtown Mount Pleasant offers boutiques and intimate restaurants.

Campus Tours
Visitors to CMU and Mount Pleasant are always welcome. Tours are provided weekdays and many Saturdays, arranged through the Admissions Office at (989) 774-3076 or toll-free (888) 292-5366. Guest parking information and passes are available by contacting Admissions in advance. See www.cmich.edu/visit for more information.
**Degree Offerings**

Bachelor of Applied Arts  
Bachelor of Arts  
Bachelor of Fine Arts  
Bachelor of Individualized Studies  
Bachelor of Music  
Bachelor of Music Education  
Bachelor of Science  
Bachelor of Science in Business Administration  
Bachelor of Science in Education  
Bachelor of Science in Electrical Engineering  
Bachelor of Science in Engineering Technology  
Bachelor of Science in Mechanical Engineering  
Bachelor of Social Work

Advanced degrees detailed in the Graduate Bulletin:

Master of Arts  
Master of Arts in Teaching  
Master of Business Administration  
Master of Fine Arts  
Master of Music  
Master of Public Administration  
Master of Science  
Master of Science in Administration  
Specialist in Education  
Specialist in Psychological Services  
Doctor of Audiology  
Doctor of Education  
Doctor of Health Administration  
Doctor of Philosophy  
Doctor of Physical Therapy  
Doctor of Science of Advanced Materials

In addition, several departments offer post-baccalaureate certificates that signify satisfactory completion of certain prescribed advanced coursework.

All Bulletins may be seen at https://bulletins.cmich.edu.

**Colleges of the University**

**College of Business Administration**
- School of Accounting
- Department of Business Information Systems
- Department of Economics
- Department of Finance and Law
- Department of Management
- Department of Marketing and Hospitality Services Administration

**College of Communication and Fine Arts**
- Department of Art
- School of Broadcast and Cinematic Arts
- Department of Communication and Dramatic Arts
- Department of Journalism
- School of Music

**College of Education and Human Services**
- Department of Counseling and Special Education
- Department of Educational Leadership
- Department of Human Environmental Studies
- Department of Recreation, Parks, and Leisure Services Administration
- Department of Teacher Education and Professional Development

**The Herbert H. and Grace A. Dow College of Health Professions**
- Department of Communication Disorders
- School of Health Sciences
- School of Rehabilitation and Medical Sciences
- Department of Physical Education and Sport

**College of Humanities and Social & Behavioral Sciences**
- Department of English Languages and Literature
- Department of Foreign Languages, Literatures, and Cultures
- Department of History
- Department of Military Science
- Department of Philosophy and Religion
- Department of Political Science
- Department of Psychology
- Department of Sociology, Anthropology, and Social Work

**College of Science and Technology**
- Department of Biology
- Department of Chemistry
- Department of Computer Science
- Department of Engineering & Technology
- Department of Geography
- Department of Geology
- Department of Mathematics
- Department of Physics

**Off Campus Programs**
See the 2008 - 2009 Off Campus Programs Bulletin.

**College of Graduate Studies**
See the 2008 - 2009 Graduate Bulletin.
Off-Campus Programs

Merodie A. Hancock, Vice President and Executive Director
774-4456; E-mail: CELInfo@cmich.edu;
Website: cmuoffcampus.com

A major goal of Central Michigan University is to provide academic programs for students whose career or personal circumstances limit their access to traditional forms of higher education. Off-Campus Programs was established in 1971 as the Institute for Personal and Career Development to help meet that goal.

Off-Campus Programs uses flexible scheduling, compressed class formats and a sophisticated and comprehensive network of program centers in nearly 20 states and in Canada and Mexico to offer graduate and undergraduate degree programs to thousands of adult students each year.

Off-Campus Programs combines the university’s high academic standards with innovative teaching technologies and strategies. Off-Campus Programs is prepared to:

1. Translate career and other forms of prior learning into academic credit.
2. Provide flexible instructional, curricular and scheduling patterns.
3. Tailor programs through individualized advising.
4. Provide for wide use of internships, work-study experiences, independent study, and other forms of individualized study.
5. Utilize various distance education media.

In addition to complete degree programs, individual courses are offered off campus for credit at diverse locations in Michigan each semester. Many of the courses are designed to assist professionals in meeting certification regulations, to provide credit-bearing, in-service opportunities and to offer convenience to working adults who want to take courses toward various campus degree programs.

The course schedules for Michigan Distance/Distributed Learning have been combined for off-campus educational opportunities at various sites in Michigan and provides enrollment, registration, advising and other pertinent information for off-campus students.

Courses through Distance/Distributed Learning and Michigan coincide with campus terms.

Curricular Offerings

Academic programs available through Off-Campus Programs provide a wide range of educational experiences necessary for the attainment of undergraduate degrees, graduate degrees, certificates, and doctorate degrees.

At the undergraduate level, students may pursue a Bachelor of Science (B.S.) degree with a major in Administration, Information Technology, or Vehicle Design, or an option in Community Development; or a Bachelor of Applied Arts (B.A.A.) degree with a major in Administration. Graduate programs, which are described in the CMU Graduate Bulletin and the Off-Campus Programs Bulletin, include a Master of Arts (M.A.) in Counseling, Education, Educational Leadership, Educational Technology, Humanities, or School Principalship; a Master of Public Administration (M.P.A.); a Master of Science in Administration (M.S.A.) and graduate certificates in the M.S.A. program; a Specialist in Education (Ed. S.); a Doctor of Health Administration (D.H.A.) and a Doctor of Education (Ed.D.).

Prior Learning Assessment Program

The Prior Learning Assessment Program provides academic recognition of college-level skills and knowledge acquired outside the formal college classroom. Credit may be earned for learning acquired through career and personal experiences in job-related activities, in community participation, or from training experiences through related on-the-job instruction or special schools.

Students who apply for Prior Learning credits submit a comprehensive portfolio which describes and documents their learning experiences. Evaluation is dependent on performance criteria established by a team of university faculty members.

Students who earn credit through the Prior Learning Assessment Program must complete five (5) semester hours of credit from CMU before the prior learning credits will be recorded on their transcripts.

On-campus undergraduate students may also apply for Prior Learning Assessment Credit.

Planned Experiences

Planned experiences, available to undergraduate students, provide an individualized learning experience which synthesizes the theoretical and practical in one learning context. The planned experience is a student-formulated project on an approved topic (or topics) in the student’s area of study. The project integrates experience with principles and theories in the field. Projects are formulated with the assistance of an advisor, and both the proposal and the final form are reviewed by a Planned Experience Evaluation Committee.

Distance/Distributed Learning

CMU and the Distance/Distributed Learning Center are committed to providing educational opportunities to people whose busy lives prevent them from attending traditional, face-to-face classes. Our offerings are available through online courses and workshops (via the Internet).

It is possible to complete a degree through Central Michigan University without ever stepping foot on CMU’s main campus. Through the Distance/Distributed Learning Center, you can earn a Bachelor of Science degree with a Major in Administration or an Option in Community Development, a Master of Science in Administration with General Administration or Information Resource Management concentration, or a Doctorate in Health Administration.

Program Operation

Courses offered by Off-Campus Programs are scheduled in varied geographic areas at times convenient to students. The extent of offerings in a particular location is limited by the number of individuals with common educational interests concentrated in the area and by human and material limitations of faculty and instructional facilities and resources. Organizations including local, state and federal agencies as well as corporations and associations may sponsor cohort programs for their members and for other students in the community.

The typical procedure followed is to identify student needs, develop a schedule of courses, and counsel students into appropriate programs and time schedules. Continual liaison is maintained between Off-Campus Programs and cooperating educational institutions, governmental agencies, professional associations,
Faculty and Advisors

The distinctive character of flexible offerings and course scheduling by Off-Campus Programs attracts recognized leaders in a number of fields who serve as instructors and advisors. Instruction is provided by university faculty and by faculty drawn from universities throughout the nation. Instructors are also selected from the executive ranks of government, business and industry and are individually appointed on a contract basis for each class.

In addition to its full-time advising staff, Off-Campus Programs specially selects academic advisors from its pool of qualified instructors, all of whom are approved to teach based on the same rigorous standards applied to campus faculty. Academic advisors are official representatives of the university. Advisors work closely with students to create an individual program plan each student must use as a guide to attain his or her academic goals.

Library Services

Off-Campus Programs makes the extensive CMU libraries’ resources available to students and faculties through its Off-Campus Library Services (OCLS) Program.

OCLS is staffed with professional librarians, support staff and student assistants who work closely with off-campus students and faculty to meet their information needs. OCLS librarians provide reference assistance including direction to appropriate materials for course research assignments; explanation of the use of library print materials and electronic databases and answers to specific reference questions. Librarians also visit classes to explain OCLS and to provide instruction in research methods.

OCLS provides toll-free telephone and fax numbers, e-mail and fax addresses which enable students to request the loan of any circulating book in the library, photocopies of articles in journals held in the library, and reference assistance from the librarians. Requests for specific materials are processed with the goal of meeting a 24 hour turnaround time from the time the request is received until it is ready to be mailed from campus.

Servicemember’s Opportunity College

Central Michigan University recognizes the unique nature of the military life-style and is committed to ensuring the transfer of relevant credits, scheduling courses at convenient times and locations and providing credit opportunities for prior learning experiences and military education relevant to the degree. The SOC was jointly developed by educational representatives of each of the Armed Services, the Office of the Secretary of Defense and a consortium of 13 leading institutions of higher education. The SOC is sponsored by the American Association of State Colleges and Universities (AASCU) and the American Association of Community and Junior Colleges (AACJC).

Non-Degree and Non-Credit Programs

Off-Campus Programs provides an opportunity for educators and educational administrators to earn credit toward certificate renewal and provides individuals interested in personal development with a range of non-credit programs. Broad in its offerings, there is something for everyone across the lifespan.

Non-Degree Credit for the Education Market

Through the District Designed Professional Development (DDPD) program, school districts and ISDs can design a university credit component for site-based professional development programs. The DDPD program offers educators and administrators with an opportunity to earn credits toward certificate renewal. For further information about the DDPD program, please contact Off-Campus Programs at (800) 950-1144, ext. 4477.

Non-Credit Options

Corporate and Executive Development

Off-Campus Programs is able to partner with corporations to assist them with the learning and development needs within their organizations. Services include training, content collaboration, consulting services, organizational assessments and more. For further information, please contact (800) 950-1144, Ext. 7137.

Community Programs

What you are looking for may be offered through Off-Campus Programs. A variety of offerings are available for youngsters and high school students including community music school, summer music camp, and color guard/drum major camps. For further information, please contact (800) 950-1144, ext. 7137.

Life-Long Learning

If you are interested in adventures in lifelong learning, look no further than active travel programs through Elderhostel. International in scope, learners of at least 55 years of age come together as a group of travelers to share a common destination and a passion for learning. For more information about CMU offerings, please contact (800) 950-1144, ext. 7129.

Bulletin

Students participating in programs offered through Off-Campus Programs should refer to the current Off-Campus Programs Bulletin for regulations and fees.
Roger Coles, Interim Dean  
100 Foust; 989-774-GRAD; E-mail: grad@cmich.edu; Web page: http://www.grad.cmich.edu

Central Michigan University's graduate programs enroll students from around the United States as well as from countries around the world. These students have several options available for admission:

1. Those who hold a baccalaureate or equivalent degree from a college or university of recognized standing and who have met the requirements of the graduate program may be granted regular admission to a degree program;

2. Applicants who hold baccalaureate degrees but do not meet all requirements for regular admission may be granted conditional admission. Those who receive this type of admission status are granted regular admission after they meet the conditions specified on their initial admission materials;

3. Applicants who are undecided about a curriculum choice, do not wish to earn a degree or do not meet all conditions for regular or conditional admission may apply for non-degree admission. Non-degree admission enables students to enroll in graduate classes; or

4. Undergraduate students who have been admitted to an accelerated Master's degree program or who have no more than twelve undergraduate credits remaining may apply for concurrent admission, which enables the student to register for graduate credit for the semester or session in which requirements will be completed for a baccalaureate degree. Concurrent admission is granted only to those who would qualify for admission to graduate study at the end of the concurrent session.

Application deadlines for graduate programs vary. Some programs have firm deadlines; others consider applications on a rolling basis, in which case, prospective students should apply at least six weeks before the start of the semester in which they wish to enroll. Those applying for non-degree admission may apply as late as one week before the start of the new semester. Ideally, international students should apply at least six months prior to the desired time of enrollment, but the graduate admissions office will attempt to accommodate those whose applications do not make the six-month deadline. Some programs require the GRE, GMAT or Miller Analogies Test, and some require supplementary application materials. Prospective students are encouraged to contact the relevant academic department to learn more about their admissions procedures. If you wish to take a class for graduate credit, be sure that you are admitted to the College of Graduate Studies.

A variety of financial aid opportunities are available to help graduate students finance their education. Fellowships include a stipend and a 24-credit tuition scholarship and are awarded on a competitive basis to outstanding students. The university has fellowship programs for master's, specialist's and doctoral candidates. Graduate Assistantships, involving teaching, research, or administrative work, consist of a stipend plus a 20-credit tuition scholarship (prorated for part-time appointments). Individual departments award the assistantships; inquiries should be directed to department chairs. Loan and work opportunities are also available for graduate students.

For detailed information about graduate programs, prospective students should write the College of Graduate Studies, CMU, Mt. Pleasant, MI 48859, call (989-774-GRAD) or E-mail grad@cmich.edu and request the College of Graduate Studies Bulletin, which includes an application for admission. Information is also available on the Web at http://www.grad.cmich.edu.

Graduate Degrees

Master of Science in Administration
- MSA Acquisitions Administration
- MSA General Administration
- MSA Health Services Administration
- MSA Hospitality & Tourism Administration
- MSA Human Resources Administration
- MSA Information Resource Management
- MSA International Administration
- MSA Leadership
- MSA Long-Term Care Administration
- MSA Organizational Communication
- MSA Public Administration
- MSA Recreation and Park Administration
- MSA Software Engineering Administration
- MSA Sport Administration
- MSA Vehicle Design and Manufacturing Administration

Art
- MA Art
- MFA Fine Arts

Biology
- MS Biology
- MS Biology - Conservation

Broadcast and Cinematic Arts
- MA Broadcast and Cinematic Arts

Business Administration
- MBA Business Administration

Business Information Systems
- MS Information Systems

Chemistry
- MS Chemistry

Teaching Chemistry
- MA High School
- MA College

Communication Disorders
- MA Speech-Language Pathology
- AuD Audiology

Computer Science
- MS Computer Science

Counseling and Special Education
- MA School Counseling
- MA Professional Counseling
- MA Special Education: The Master Teacher

Economics
- MA Economics
### Educational Administration and Community Leadership
- **MA** Educational Leadership
- **MA** Community Leadership
- **MA** School Principalship
- **EdS** General Educational Administration
- **EdD** Educational Leadership

### English Language and Literature
- **MA** English Language & Literature
- **MA** Composition & Communication
- **MA** Creative Writing
- **MA** Teaching English to Speakers of Other Languages

### Foreign Languages, Literatures and Cultures
- **MA** Spanish

### Geography
- **MS** Geographic Information Sciences

### Health Sciences
- **MA** Health Promotion & Program Management
- **DHA** Health Administration

### History
- **MA** History
- **MA** History - Joint
- **PhD** History - Joint

### Human Environmental Studies
- **MA** Human Development & Family Studies
- **MS** Nutrition & Dietetics

### Humanities
- **MA** Humanities

### Engineering and Technology
- **MA** Industrial Education
- **MA** Industrial Management & Technology

### Mathematics
- **MA** Mathematics
- **MAT** Mathematics
- **PhD** Mathematics

### Music
- **MM** Performance
- **MM** Music Education Supervision
- **MM** Composition
- **MM** Conducting
- **MM** Piano Pedagogy

### Physical Education & Sport
- **MA** Teaching
- **MA** Athletic Administration
- **MA** Exercise Science
- **MA** Coaching
- **MA** Sport Administration

### Physics
- **MS** Physics

### Political Science
- **MA** Political Science
- **MPA** Public Administration
- **MPA** Public Management
- **MPA** State & Local Government

### Psychology
- **MS** General/Experimental Psychology
- **MA** Industrial/Organizational Psychology
- **SPsyS** School Psychology
- **PhD** Clinical Psychology
- **PhD** Applied Experimental Psychology
- **PhD** Industrial/Organizational Psychology
- **PhD** School Psychology

### Recreation, Parks and Leisure Services Administration
- **MA** Recreation & Parks Administration
- **MA** Therapeutic Recreation

### Rehabilitation and Medical Sciences
- **DPT** Physical Therapy
- **MS** Physician Assistant

### Science
- **Ph.D.** Science of Advanced Materials

### Sociology
- **MA** Sociology
- **MA** Sociology - Concentration in Social & Criminal Justice

### Communication and Dramatic Arts
- **MA** Interpersonal & Public Communication
- **MA** Oral Interpretation
- **MA** Theater

### Teacher Education & Professional Development
- **MA** Middle Level Education
- **MA** Educational Technology
- **MA** Reading and Literacy K-12

### Elementary Education
- **MA** Classroom Teaching
- **MA** Early Childhood
- **MA** Reading in the Elementary School

### Library, Media & Technology
- **MA** Library Media
- **MA** Media & Technology

### Secondary Education
- **MA** Teaching in the Senior High

### Graduate Certificates
- Acquisitions Administration (MSA)
- Autism
- Business Computing
- Data Mining
- Enterprise Systems
- European History
- General Administration (MSA)
- Health Services Administration (MSA)
- Hospitality & Tourism Administration (MSA)
- Human Resources Administration (MSA)
- Information Resource Management (MSA)
- International Administration (MSA)
- Leadership (MSA)
- Long-Term Care Administration (MSA)
- Modern History
- Professional Development in Public Administration
- Public Administration (MSA)
- Software Engineering Administration (MSA)
- United States History
- Vehicle Design and Manufacturing Administration (MSA)
Vision
CMU will be a nationally prominent university known for integrity, academic excellence, research and creative activity, and public service.  
Adopted by the Board of Trustees, 3-3-05

Mission
Central Michigan University serves Michigan and the larger community as a doctoral research university focused on excellent teaching and student-focused learning. The university is committed to providing a broad range of undergraduate and graduate programs and services to prepare its students for varied roles as responsible citizens and leaders in a democratic and diverse society. Its programs encourage intellectual and moral growth, prepare students for meaningful careers and professions, instill the values of lifelong learning, and encourage civic responsibility, public service and understanding among social groups in a global society.

The university emphasizes an undergraduate program that maintains a balance between general education and specialization. In addition to educational depth in at least one academic discipline or professional field, the university provides educational experiences in the arts, humanities, natural and social sciences, global cultures, and issues of race and diversity. The university offers selected high quality graduate programs in traditional disciplines and professional fields. Through its Off-Campus Programs, the university provides access to higher education programs and lifelong learning opportunities both nationally and internationally through a variety of innovative instructional methods and schedules designed to meet the demands of adult populations.

Central Michigan University encourages research, scholarship and creative activity and promotes the scholarly pursuit and dissemination of new knowledge, artistic production and applied research. Through its support of research, the university enhances the learning opportunities of both its undergraduate and graduate students and promotes economic, cultural and social development.

The university’s sense of community is reflected through governance structures that allow broad-based participation, opportunities for close student-faculty interaction, and a rich array of residential and campus-based cocurricular activities. Through its partnerships and outreach efforts, the university promotes learning outside of the traditional classroom and enhances the general welfare of society.

Core Values
The Central Michigan University community has identified core values that guide and motivate the institution. CMU’s mission statement reflects a commitment to these values:

Learning
• Student-focused learning, placing the strongest value on learning and teaching;
• The scholarship of discovery and creativity, recognizing that the most basic function of the university is to seek, apply and disseminate knowledge and insights;
• Liberal education as the foundation of the undergraduate curriculum, articulating this commitment in a general education program;
• Graduate education as integral to the university experience, enhancing the learning environment for all community members and providing leadership in the area of scholarship;
• Nurturing and encouraging personal growth, creating an environment that actively and deliberately supports individuals’ effort to realize their potential and achieve their goals.

Community
• Diversity and multiculturalism, embracing multiple voices, perspectives and ideas rather than the dominance of only one idea, person, faction, generation, race, culture or religion;
• A sense of community, encouraging a shared sense of belonging, the harnessing of energies and commitments to common goals, and the valuing of the contributions of all members to the whole;
• Respect and civility in the treatment of each other, creating an atmosphere of mutual free exchange and expression of thoughts and ideas, civil discourse and conscientious actions;
• Shared governance, supporting the principles of communication, consultation and participatory decision-making.

Service
• Serving the larger community, recognizing an obligation to serve the public interest and to merge theory and practice;
• Professional responsibility, taking seriously the impact of performance on each other, on the learning community, and upon society.

Quality
• Striving for quality in all that we do, encouraging excellence in all of our activities.
Goals
To achieve its mission and realize its values, Central Michigan University is committed to the following actions:

1. Provide a quality, broad undergraduate education to prepare students for a thoughtful life of service to the community and as a base for future academic and professional work and to ensure that CMU students will be knowledgeable and skilled, liberally educated persons.

2. Offer in-depth undergraduate programs in which students can begin to master an academic field and practice a profession.

3. Offer graduate programs in niche areas of faculty strength that meet regional, state, national and international needs.

4. Encourage the practice of values pertaining to professionalism, character and citizenship, including concern for the welfare of humanity, dedication to public service and awareness of the social issues confronting a diverse global society.

5. Advance and disseminate knowledge by stimulating and supporting research and creative activities by students, faculty and staff.

6. Design and develop innovative and effective learning systems to meet contemporary educational needs.

7. Use modern technologies to enhance teaching, learning, research and administrative functions.

8. Provide an environment that allows for broad-based community involvement and participation in democratic civic life.

9. Provide support services and a physical environment that foster student success.

10. Offer cocurricular activities, including Division I-A athletics, which enhance intellectual, cultural, social, ethical, physical and emotional development.

11. Create and nurture an environment that attracts and retains students, faculty and staff who embody and promote cultural, racial and global diversity.

12. Provide educational experiences and programs to enhance mutual trust, respect, understanding and sense of community with people from all backgrounds and cultures and to ensure an international and global perspective.

13. Provide service for the public good.

14. Attract and manage resources to enable faculty, staff and students to be successful in meeting these goals.

In all of its activities, Central Michigan University encourages the ongoing monitoring of quality and the achievement of excellence.

Endorsed by the Academic Senate 4/30/02
Adopted by the Board of Trustees 9/12/02

The Enduring Philosophy
In its one hundred years as an institution of higher learning, Central Michigan University has supported a liberal arts education as the common base for all degree programs. In the words of a founder, “Education in its best and truest sense is a much larger thing than any or even all of the so-called practical uses that may be made of it. Accordingly . . . the school shall stand squarely and strongly for the larger idea, that education is a rightful heritage of the human soul .... Breadth and liberality of scope will always prove the better investment in the long run.”
Student Learning Outcomes Assessment

To assure that Central Michigan University’s programs are strong and that students in them are attaining appropriate levels of knowledge, skills, and understanding, the faculty and staff of Central Michigan University have developed ongoing processes to assess the learning and academic achievement of students in academic programs. Students at CMU should expect to participate in a wide range of assessment activities designed to provide useful information about the effectiveness of academic programs and the service programs that support them. From time to time during their courses of study, CMU students may be asked to participate in tasks to demonstrate the breadth and depth of their knowledge, skill, and understanding, indicate their levels of satisfaction with services provided, and describe their learning experience. Alumni may be asked to communicate their views about programs and their careers since graduation. Employers also may be asked to indicate what qualities they need and expect in university graduates and how they assess CMU’s programs in preparing students to meet their needs.

Throughout these efforts, the concern is with program quality; assessment serves as a basis for continuous improvement and CMU’s commitment to standards of excellence.

Accreditations

CMU is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, one of six regional accrediting associations in the United States. The Higher Learning Commission is recognized by the US Department of Education and the Council on Higher Education Accreditation (CHEA).

The following organizations have issued their accreditation to appropriate CMU programs: Accrediting Council of Education in Journalism and Mass Communication (ACEJMC), Accreditation Review Commission on Education for Physician Assistant (ARC-PA), American Chemical Society (ACS), American Psychological Association (APA), Commission on Accreditation in Physical Therapy Education (CAPTE), Commission on Accreditation for Dietetics Education (CADE), Commission on Accreditation of Athletic Training Education (CAATE), Council of Academic Accreditation in Audiology and Speech-Language Pathology (CAA), Commission on Accreditation in Social Work Education (CSWE), National Recreation and Park Association and the American Association for Leisure and Recreation Council on Accreditation (NRPA/AALR), National Association of Schools of Music (NASM), National Association of Schools of Art and Design (NASAD), National Association of School Psychologists (NASP), and the Accreditation Commission for Audiology Education of the American Academy of Audiology.

The College of Business Administration is accredited by the AACSB International - The Association to Advance Collegiate Schools of Business. This accreditation covers all undergraduate and masters degree programs in business offered by the College. AACSB International is a not-for-profit organization consisting of more than 900 educational organizations and corporations. Headquartered in Tampa, FL., USA, AACSB International is the premier accrediting agency and service organization for business schools.

The Professional Education Unit, chaired by the Dean of the College of Education and Human Services, is accredited by the National Council for Accreditation of Teacher Education (NCATE). 2010 Massachusetts Ave., NW, Suite 500, Washington, DC 20036; phone (202) 466-7496. This accreditation covers initial teacher preparation and advanced educator preparation level programs. NCATE is recognized by the U.S. Department of Education and the Council for Higher Education Accreditation to accredit programs for preparation of teachers and other professional school personnel.

CMU is also on the approved list of the American Association of University Women and maintains national recognition by the Educational Leadership Constituent Council (ELCC). The National Association for the Education of Young Children (NAEYC) accredits CMU’s Human Growth and Development Pre-School lab.

Individuals who wish to review the accreditation documents should contact the Provost’s Office. Further information regarding specific program accreditation status is located at: http://academics.caffairs.cmich.edu/accreditation.shtml.

Affirmative Action

CMU, an AA/EO institution, strongly and actively strives to increase diversity and provide equal opportunity within its community. CMU does not discriminate in employment against persons based on age, color, disability, gender, familial status, height, marital status, national origin, political persuasion, race, religion, sexual orientation, veteran status, or weight (see http://www.cmich.edu/aaeo/).

Affirmative action is a set of specific and results-oriented measures taken to bring about equal opportunity. At CMU, the Affirmative Action Office coordinates and monitors the university’s affirmative action/equal opportunity efforts and programs to assure compliance with Americans with Disabilities Act, Title VII of the 1964 Civil Rights Act, Title IX, Executive Order 11246 and other relevant state and federal statutes.

The office supervises the maintenance of related reports and records, provides and develops related educational programs and materials, offers guidance and advice to all community members on the University’s nondiscrimination and affirmative action policies and procedures, assists departments with recruitment and retention activities, and receives and resolves complaints of discrimination from students, employees and others.

To view the Board of Trustees Nondiscrimination Policy, see http://www.cmich.edu/aaeo/bot-nondis.htm.

For more information, contact the Affirmative Action Office, 428 Park Library, Central Michigan University, Mt. Pleasant, MI 48859, 989-774-3253, http://www.cmich.edu/aaeo/.
The Office for Institutional Diversity serves a leading role in promoting an institutional culture that values and supports diversity. We recognize the important role diversity plays in the educational process and seek to increase understanding and appreciation for diversity in each member of the university community.

This office supports rational resolution of diversity conflicts, tracks the university’s long-term diversity goals, and coordinates efforts with the following offices to educate the university’s student body and the community.

**Minority Student Services**

Minority Student Services (MSS) provides academic, personal, social and cultural support to students. To empower and retain students, the MSS staff provides and enhances a campus environment where diversity is understood and celebrated. The office coordinates a diverse area of student activities and retention services. Students are encouraged to contact the office for assistance with academic, social and personal concerns. Minority Student Services serves as a representative voice for CMU’s students of color.

The office works closely with diverse student groups in planning and implementing academic, social, and recreational activities. Specific programs and initiatives offered through the office include cultural celebrations, Academic and Career Empowerment Program, Supplemental Instruction, Multicultural Award of Distinction, Men About Change mentoring program, and Lloyd M. Cofer and Multicultural Advancement scholarships.

Additional functions consist of establishing strong working relationships with existing university offices and departments on matters regarding educational policies and procedures, developmental program planning and evaluation, and student services relating to minorities. Contact information: Bovee University Center 121; 989-774-3945; e-mail: mss@cmich.edu; website: [http://www.diversity.cmich.edu/mss/](http://www.diversity.cmich.edu/mss/).

**Multicultural Educational Center**

The Multicultural Education Center’s (MEC) mission is to assist in building a more inclusive and respectful community on campus. The programs coordinated through MEC provide opportunities for learning about the diversity of people and cultures represented at CMU, and help students prepare for a more diverse and globalized world. MEC sponsors speakers, art exhibits and other events. In collaboration with other offices on campus, MEC staff coordinate and develop diversity training and assist faculty with making their courses more inclusive. Students are encouraged to visit the center during the week (including M-W evenings) to see an exhibit, use the resource collection and meet other students. Contact information: Bovee University Center 125; 989-774-7318; website: [http://diversity.cmich.edu/mec](http://diversity.cmich.edu/mec).

**Native American Programs**

The cultural and social programs offered by the Native American Programs office allow the campus community to come together to learn about Native American people and share in a rich culture and traditions.

The office serves several purposes. It attracts American Indian students to CMU and helps them achieve their educational goals; it serves as a liaison to Michigan’s Indian communities to determine their educational needs; and it sponsors programs that provide opportunities for everyone to experience native cultures through activities, organizations and events.

Contact Information: Bovee University Center 125; 989-774-2508, website: [http://diversity.cmich.edu/nativ/](http://diversity.cmich.edu/nativ/).

**Gay and Lesbian Programs**

Gay and Lesbian Programs was established in 1991. Its purpose is to coordinate programs, to participate in educational forums to raise awareness of gay, lesbian, bisexual, transgender (GLBT) concerns, and to meet the needs of CMU’s gay, lesbian, bisexual, transgender (GLBT) community. Programs address issues of heterosexism, homophobia, and other issues related to the experience of sexual orientation based oppression and invidious discrimination. The office also keeps a resource file of educational, social, and political articles and brochures of interest to gays and lesbians and the university community.

Contact information: Bovee University Center 125; 989-774-3637; [http://www.diversity.cmich.edu/glp/main.htm](http://www.diversity.cmich.edu/glp/main.htm).

**GEARUP/CD Program**

GEARUP/CD (Gaining Early Awareness & Readiness for Undergraduate Programs/College Day) is a grant awarded to Central Michigan University and Flint Community Schools. It is funded by the Department of Labor and Economic Growth and the U.S. Department of Education. The program facilitates student tutoring, mentoring, and offers workshops on college preparation, and financial aid. It also assists schools and teachers to better prepare middle and high school students for college studies. The GEAR UP/CD grant serves over 1200 students in Five Flint schools with the goal of providing information and encouraging students to graduate and go on to college prepared to succeed.

GEAR UP/CD coordinates with CMU departments to provide on campus experiences for Flint students. CMU students gain valuable mentoring, volunteer and hands-on experience working with GEAR UP/CD student programs.

Contact information: 319 Warriner Hall; 989-774-1585; website: [http://www.diversity.cmich.edu/Gearup/index.htm](http://www.diversity.cmich.edu/Gearup/index.htm).

**Upward Bound**

The Central Michigan University Upward Bound is a federally funded pre-college program through the U.S. Department of Education and is designed to help economically disadvantaged and/or first generation college-bound students complete high school and prepare for college. CMU is the host institution for Upward Bound. The program intent is to motivate and encourage youth to complete high school and enter post-secondary education. Resource and assistance is offered in all aspects of the college admissions process. This includes, but is not limited, to financial aid and scholarships completion, college applications, college visits, as well as academic support workshops. It is here that students are offered free tutoring in all subjects. Weekly programs that highlight education, career, and social awareness are provided to open the eyes, hearts, and minds of the students. The Upward Bound motto is “Where Preparation Meets Opportunity!” We strive to give each student diverse opportunities to allow them to be exposed and prepared for every opportunity to assist them in their ambitions of obtaining a college education. Contact Information: 313-873-3195; website: [http://diversity.cmich.edu/upwardbound1.htm](http://diversity.cmich.edu/upwardbound1.htm).
The mission of the Office of International Education (OIE) is to
support the University’s central educational purpose of striving
for excellence in liberal arts and professional programs to train
students who will be responsible global citizens and effective
world leaders. As the focal point in the international arena at
CMU, the OIE must aggressively pursue initiatives that will
secure our students and faculty an active, productive, and rewarding
role in shaping tomorrow’s global community through providing
campus-wide leadership within the functional areas of coordinat-
ing, planning, developing, and financing international programs
and initiatives.

The breadth of international education includes areas of
internationalization of curriculum through faculty international
development and other related activities, international student
recruitment and undergraduate international student and English
language student admissions, study abroad, services to interna-
tional students and scholars, and on-campus international program
development. Part of its mission is to assist in the development
and the accomplishment of the University’s goals in international
education and exchange.

To achieve these goals, OIE would:

1. develop recruiting strategies to enlarge the international student
   application pool to attract the best, to increase the number, and
to maintain the cultural and geographical diversity of interna-
tional student body;
2. provide the best and the most comprehensive support services
to international students and scholars so that international
   students and scholars will have a smooth transition to CMU
   life and a successful stay at CMU;
3. enhance the level of international understanding among
members of the CMU community by sponsoring, organizing,
and developing international programs that are academically,
culturally, and socially rich;
4. maintain an up-to-date CMU International Education Information
   Clearinghouse; and
5. keep abreast with the development of international education
regionally, nationally, and internationally through regularly
attending conferences and meetings as well as through par-
icipation in related professional development workshops.

Within the University, OIE plays an active role in the International
Education Council under the Academic Senate that assists the
office in policy development, long-range plans, and program initia-
tives. OIE is also an active member in the International Advisory
Board that assists the Provost in major international initiatives at
the university.

Nationally, CMU is an institutional member of the Council for
International Education Exchange (CIEE), International Student
Exchange Program (ISEP), Phi Beta Delta National Honor So-
ociety, NAFSA: Association of International Educators, and AIEA:
Association of International Education Administrators.

Highlights of Services
International Students
Pre-arrival. New international students and visiting scholars
receive the OIE welcome booklet with their related admission
materials. This booklet provides information on important topics to
these individuals before they leave their home countries. Among
the subjects covered in the booklet are housing, health insurance,
expenses, F- and J non-immigrant visa status, local climate, and
airport transportation.

Airport pick-up and temporary housing. The OIE staff work
with community volunteers as well as international student or-
ganizations to coordinate airport transportation and temporary
housing needs for new students.

Orientation. New students and scholars report to the OIE soon
after their arrival to participate in an orientation program, which
is designed to meet their immediate needs in terms of housing
information and University registration procedures; introduce them
to U.S. culture and the educational system at CMU; schedule
necessary tests; and provide information on banking, health insur-
ance, safety, and F-1 and J-1 non-immigrant regulations.

Other services. In addition to its advising service, the OIE
coordinates programs designed to help students become famil-
lar with campus and community life. OIE staff members also
conduct programs and workshops covering issues such as work
authorization, cross-cultural communication, driving in the U.S.,
study skills, nutrition, etc.

Faculty and Staff Exchanges
CMU faculty and staff are encouraged to work with OIE staff
when exploring and applying for foreign exchange opportunities.
The office is able to assist in many exchange efforts, including
reciprocal department exchanges and exchanges based on agree-
ments between CMU and foreign institutions of higher learning or
collaboration agreements.

Phi Beta Delta
The aim of Phi Beta Delta, an honor society for international
scholars, is to recognize and encourage professional, intellectual,
and personal achievement in international education among CMU
students, faculty, and staff. It serves as a means of encouraging
interdisciplinary contacts and the exchange of ideas and infor-
mation among the CMU community interested in international
education.

Community Activities
The OIE works closely with community groups, individuals
and institutions interested in international understanding and activities.
It supports and/or sponsors programs that seek to respond to the
international needs and interests of the community.
CMU's Office of International Education/Study Abroad (OIE/SA) offers over 100 approved study abroad programs in more than 30 countries. Study abroad provides students with opportunities to expand their view of the world and prepare them for a career in the global workforce. International study enhances students' education in many ways; students have an opportunity to meet people with diverse cultural backgrounds, to gain global knowledge that is highly valued by modern employers, and to develop a sense of independence and self-confidence that leads to a lifetime of success.

There are a variety of programs available to suit different needs. Students can study abroad for an academic year, a semester, a summer or participate in a short-term study abroad program led by CMU faculty. Students wishing to study a foreign language have a significant number of options available that include intensive language programs, academic subjects in a foreign language, as well as an option to learn languages not taught at CMU. Knowledge of a foreign language is not a requirement for studying abroad; students may take courses taught in English in many countries around the world including The Netherlands, Austria, Italy, Czech Republic, China, Costa Rica, Finland, France, Ghana, Japan, Sweden, and South Africa. For the full list of options available, please visit the Study Abroad website at www.studyabroad.cmich.edu.

A study abroad advisor will help students choose an appropriate program to match students' budget and academic needs. All students participating in a CMU approved program will receive academic credit for their program. Students can get all their courses pre-approved by their academic department, so they will know in advance the course credits that will be awarded by CMU. With careful planning, students can study abroad for a semester or even a year and still graduate on schedule.

Studying abroad does not have to be expensive. Students looking for affordable programs can choose from a variety of tuition exchange programs offered around the world. Tuition exchange programs allow students to pay CMU tuition and enroll in courses at the foreign university at no additional charge. Some programs also include room and board exchange where students pay the CMU on-campus housing fees. There are also a number of resources available to help fund study abroad. OIE/SA offers a large number of study abroad scholarships each year. In addition, there are scholarships available through on-campus departments and from sources outside the university to help students fund their international study. Students participating in a CMU approved study abroad program may also continue to receive financial aid and may apply for additional assistance to cover the study abroad program costs.
Office of the Dean of Students
Bruce Roscoe, Dean of Students
214 Bovee University Center; 774-3346; http://www.cmich.edu/dean-of-students

The Office of the Dean of Students provides coordination of student service programs and serves as an advocate for students and their academic and non-academic concerns. The student services staff promotes a campus atmosphere that fosters intellectual and personal growth of students. The Dean encourages students to communicate their needs and interests to enhance the quality of programs, services and student life at Central Michigan University.

The Office of the Dean of Students has the responsibility to advocate, promote, and facilitate the delivery of academic and support services to students in ways that maximize meeting students' needs in a timely and courteous manner. The philosophy of the office includes the recognition that students are progressing through developmental stages and emphasizes the structuring of the campus environment to enhance student learning and personal development. Staff members seek to understand and communicate students' interests to the campus community and serve as a liaison in addressing students' concerns. The office has the responsibility to coordinate and enhance student recruitment and retention efforts. The Dean of Students promotes a campus environment that encourages diversity, community, and mutual respect for the rights and property of others.

The Office of the Dean of Students coordinates the activities of the following student service units:
- Academic Advising and Assistance
- Admissions
- Career Services
- Counseling Center
- Leadership Institute
- Registrar's Office
- Scholarships and Financial Aid
- Sexual Aggression Services
- Student Disability Services
- Student Life
- Volunteer Center

The Office of the Dean of Students enhances the interaction, cooperation and collaboration of student service units with the academic deans and departments. Staff members are responsive to students' academic and non-academic needs and seek to promote integration of students' curricular and cocurricular experiences. The office enables the university to focus on fostering students' intellectual, professional and social development.

Office of Student Life

Students connect with many aspects of university life through the Office of Student Life. Student activities are handled within this office. Students may contact the Office of Student Life for assistance with policies and procedures, such as absence from class due to illness lasting a week or more.

Student Activities and Organizations

Central Michigan University provides students with opportunities to become involved in more than 240 student organizations. Activities outside the classroom are an integral part of the total development process, and students are encouraged to take part in activities of interest to them. A wide range of interests can be pursued through organizations that focus on social issues, student governance, pre-professional development, entertainment, community service, hobbies, club sports, or religion. Involvement in student organizations is an excellent way to develop leadership skills. Many academic departments sponsor student organizations and honor societies. Fraternities and sororities exist on CMU's campus to provide opportunities for social and service experiences. Additionally, each residence hall has a hall council or association which provides social and educational programs or events for residents of a respective hall.

The Student Government Association (SGA) is recognized as the representative governing body for CMU students. By becoming active in SGA, any student can participate in the formation of policies, procedures, and programs which affect his or her education. The major function of the Student Government Association is to represent the interests and needs of all students, whether its focus is on new ideas or a concern to the university community. People who have an interest in working with an issue that relates to the student body or are interested in serving on university committees may contact SGA for information. SGA elections are held every year to select officers and representatives, however, any student may participate in committees without being an elected member.

The Student Organization Center (SOC), located on the lower level of the Bovee University Center, houses about thirty student organization offices. Among the major groups with offices in and near the SOC are: Student Government Association, International Club, Organization for Black Unity (OBU), Hispanic Student Organization (HSO), Residence Hall Assembly (RHA), Mortar Board, and the Interfraternity Council, Panhellenic Council, and National Panhellenic Council, which govern fraternities and sororities.

Students interested in participating in campus activities should contact the Office of Student Life. Assistance will be given to students who are interested in starting a new group. The office is located in the Bovee University Center. See http://www.stulife.cmich.edu/ for more information.

Program Board

Program Board is a student committee which reports to the Office of Student Life. It is a learning experience for students interested in all aspects of the entertainment field, such as contract negotiations, marketing, promotions, graphic design, and special events. Program Board plans, schedules, and conducts social and educational events that occur outside of the classroom, and complement the academic curriculum. Programming includes performing artists and speakers, as well as major concerts and films. Students have the opportunity to participate in selecting which performers come to campus, and to learn how to effectively plan and co-sponsor events with other campus organizations.

University Policy for Student Conduct

The university’s philosophy of a student’s relationship to CMU is expressed in the Code of Students Rights, Responsibilities, and Disciplinary Procedures (see Appendix 1).

Anyone wishing to use the procedures or who has questions concerning them should contact the Conduct Proceedings Officer, Office of Student Rights and Responsibilities, who administers the policies and procedures.
Sexual Aggression Services

The Sexual Aggression Services Coordinator, through the Office of the Dean of Students, coordinates services and educational programs on campus relating to sexual assault, stalking, and dating violence. The university encourages a pro-active approach to this problem through educational programs and counseling to both men and women. Concerns and reports of sexual aggression should be made to the Office of Student Life, the CMU Police Department, a counselor in the Counseling Center, or S.A.P.A. (Sexual Aggression Peer Advocate). The website address is http://www.sapa.cmich.edu.

University Policy on Sexual Harassment

University policy and the Michigan Civil Rights Act prohibit sexual harassment of any person. The university is committed to maintaining an educational and working environment free of conduct which degrades or subjugates individuals, including conduct which constitutes sexual harassment. Students who have questions or concerns about sexual harassment on the campus should contact the Office of Student Life or the Affirmative Action Office.

Student Disability Services

Central Michigan University is committed to providing equal opportunities for success to students with disabilities. Student Disability Services offers support for students with disabilities.

Services are available to assist students in their effort to learn and grow from their college experience. Students with disabilities are urged to register with Student Disability Services.

For more information about facilities and services for students with disabilities, contact Student Disability Services, 120 Park, 774-3018.

University Libraries

Thomas J. Moore, Dean
Park 407
University Library

The University Library houses a collection of over 1,025,000 volumes of books, periodicals, and documents and maintains approximately 3,570 periodical and newspaper subscriptions and offers online access to hundreds of databases. The University Library also has a significant microform collection of 1,320,000 items which include long periodical and newspaper runs, as well as large sets of education research reports, early English and American books, presidential papers, and other manuscripts. The library is a selective depository for U.S. and Michigan government documents and maps. Research materials not available in the library can be obtained from other sources around the world through the library’s Interlibrary Loan office.

More than just a collection of books and periodicals, the University Library is also the center of a large array of library services and study areas which are open nearly 100 hours/week. An extended hours study room offers additional hours of study space.

The Libraries’ integrated system is a cornerstone of library services. It consists of CENTRA, the online catalog of books, periodicals, music scores, maps, and audio-visual materials – and provides access to online selected periodical articles and documents in arts and humanities; social and behavioral sciences; health, physical, and life sciences; business; and education. The libraries have over 300 workstations with high-speed Ethernet connections that provide access to the wealth of information resources available through the Libraries’ home page at http://www.lib.cmich.edu. Wireless Internet access is also available at the library.

Reference Librarians are available every day of the week to assist students and faculty with reference questions and research projects. In addition to offering personal assistance from the reference desk, librarians also respond to inquiries via telephone, and e-mail. They also offer library instruction to classes and teach LIB 197, a one-credit course in basic library research skills. The Library has a wide variety of general and subject-specific indexes, abstracts, and other research materials, some in print and some in electronic format. Reference Librarians and staff will be glad to assist users in selecting and effectively accessing all of these resources.

Photocopy machines, including those for microforms and printers are available throughout the library for the convenience of patrons. Visually impaired patrons may use equipment and materials located in Student Disabilities Services on the first floor. Individual study rooms are also available.

Hours of service are posted in the library and at the entrances, but patrons may call 989-774-3294 for current library hours or 989-774-1100 for more information.

Clarke Historical Library

The Clarke Historical Library collects print and manuscript items regarding Michigan and the Old Northwest Territory. The Library’s holdings are extensive. Over 76,000 printed items, 3,570 manuscript collections, 11,000 reels of microfilm, 16,000 visual images, and 2,300 maps document all aspects of life in Michigan. In addition to this main area of concern, the Clarke Historical Library has also developed a variety of “special” collections. These include the Lucile Clarke Memorial Children’s Library, one of the finest collections of children’s literature in the country, the Class of 1967 Presidential Campaign Biographies collection, Native American material, the Central Michigan University archives, and the William Wright Collection of Africana and Afro-American. Because of the uniqueness of much of the material in the Clarke Historical Library, items in the Library are not available for circulation but must be consulted in the Clarke Historical Library’s reading room located in 142 Park Library. Hours of service are posted, but patrons may dial 774-3352 for Library hours or 774-3864 for reference assistance.

The Clarke Historical Library was established in 1954 with the gift of 1,575 volumes from Dr. Norman E. Clarke Sr., who received his bachelor’s degree from Central in 1920. In subsequent years Dr. Clarke Sr. supported the Library through the donation of a large number of books, the establishment of the Lucile M. Clarke Memorial Children’s Library, named in honor of his first wife, and the creation of an endowment to partially underwrite the Library’s ongoing needs. Dr. Clarke Sr. died in 1984 but his family continues to be actively engaged in the Library’s work.

Instructional Materials Center

The Instructional Materials Center serves Education and Human Services and the university and local community. It is located on the lower level of Ronan Hall. This area houses instructional materials for pre-kindergarten through twelfth grade, as well as the University Libraries’ Children’s and Young Adult Literature Collection, and other special collections. Also housed in the IMC is the Michigan Department of Education’s Textbook Collection, which provides examination copies of K-12 textbooks published for sale in Michigan. The Media Production Area is available to assist students, staff and area professionals in preparing instructional media of many kinds. Equipment is available to preview and produce audio, visual, and non-print materials. An extensive collection of Ellison dies can be utilized by IMC patrons. Lamination is available by appointment. The computer labs in the IMC are accessible for a variety of uses: the IMC lab is a small open lab available to the university community; the Dow Multimedia Lab is primarily used as a classroom with some open lab availability; and the Ameritech Lab is available for classroom reservations as well as functioning as an open lab. Further information about the IMC may be obtained by calling 774-3549 or accessing the website at http://www.ehs.cmich.edu/imc.
Information Technology

Roger Rehm, Vice President/Technology/CIO
Wariner 208
(989) 774-1474

Central Michigan University has a wide variety of technology resources and technology support available for students, faculty, and staff. The Office of Information Technology (OIT) is responsible for providing the CMU community with a diverse and technically rich learning and research environment. CMU and OIT support innovative learning and teaching and maintain a planned investment strategy to keep CMU technology resources upgraded and available to students and faculty.

**Email Services for Students.** Upon acceptance to CMU, students are assigned a CMU e-mail address. This e-mail address is the official address to which course-related correspondence and billing notices are sent. It is very important that students check their CMU e-mail address regularly, and they will be held responsible for mailings issued to that address.

**Student Portal.** Central Michigan University offers a student-centered web portal located at: [https://portal.cmich.edu](http://https://portal.cmich.edu). The portal is designed specifically with CMU students in mind, and provides students with comprehensive information in a number of different areas, such as activities, academics, employment, available services and access to a variety of individual records. The portal extends the on-line experience by allowing students to create their own personal web space to store documents, share photos, and even subscribe to their friends' sites.

**Computer Purchases.** CMU offers discounted and highly competitive purchasing opportunities with several major computer manufacturers. These opportunities are available to all CMU students, faculty, and staff. For more information, visit [www.purchasing.cmich.edu](http://www.purchasing.cmich.edu).

**The CMU Network.** CMU maintains a very comprehensive networking infrastructure to support the work of its students and faculty. In addition to the traditional wired network, wireless access is available in all of CMU's residence halls and academic buildings. Students are required to register their computers to use the network and are presented with the online registration process when they first access the CMU network.

**Public Computer Labs.** State of the art instructional and student technology labs are strategically located throughout the campus to provide easy access for students and faculty. Many of the instructional and student labs operate extended daily hours and weekends.

**IT Help Desk.** A technology help desk is housed in the first floor of Park Library, and is the first point of contact for all technology related questions. The IT Help Desk assists students, faculty, and staff with university-sponsored technology services, general computing questions, and computer repairs. Contact information for the Help Desk is provided below.

**Cellar Phone Service.** OIT offers Nextel, Sprint, Verizon, and Alltel cellular phone service and equipment through the Telecom Service Center. Competitive rates, up to 15% off rental for monthly service and up to 25% off retail for phones/equipment, are available to all students, faculty, and staff. For additional information, contact the Telecom Service Center at (989) 774-3091.

**Media Services.** A large collection of instructional videocassettes is available for use in CMU classes, and is also available for checkout by students. Media consultation and A/V equipment maintenance are also available.

**Acceptable Use Policies.** All users who operate or use any of the computing systems and networks of the university must abide by the acceptable use policies. The acceptable use policies are published on the web at [http://www.oit.cmich.edu](http://www.oit.cmich.edu). The policies are intended to supplement other existing university and external policies, regulations and laws.

For a more complete overview of IT services available, please call the IT Helpdesk at (989) 774-3862 or visit the IT Web site at [http://www.oit.cmich.edu](http://www.oit.cmich.edu).

CMU Police

Chief Stanley A. Dinius, Director of Police Services
Combined Services Building
(989) 774-3081

The Central Michigan University Police Department works in partnership with the entire university community to maintain a safe, secure and orderly living and learning environment. The CMU Police Department offers a diverse group of highly trained sworn police officers who are certified by the State of Michigan. For more information, see [http://www.police.cmich.edu](http://www.police.cmich.edu).

**University Policy for Use of Motor Vehicles**

Students must register any motor vehicle which they park on the university campus with the CMU Police Department. Parking permits must be displayed by the first day of classes. Students parking only for Saturday classes and evening classes between 4:00 p.m. and 2:00 a.m., Monday through Friday, are exempted from registering their vehicles, although they may not park at Washington Apartments at any time.

Any student who has a vehicle on campus is expected to become familiar with, and abide by, university traffic and parking regulations. Regulations and designation of parking areas for specific groups are published with the campus map in a brochure available at the CMU Police Department. Bicycles are also registered free at the CMU Police Department.

University Health Services

James Barker, Director
Foust Hall
774-3944

**Emergencies:** Dial 911 on campus for CMU police and ambulance assistance. Care for life threatening emergencies is provided by the Central Michigan Community Hospital Emergency Department.

**Mission:** The mission of University Health Services is to focus on improving the health and wellness of CMU students and the University community by providing personalized medical care, disease prevention and health promotion services tailored to the dynamic needs of our campus.

**Eligibility:** All regularly enrolled CMU students, MMCC students, CMU faculty, staff, their spouses and dependents 14 years of age or older, and other authorized users are eligible to use University Health Services.

**Location and Parking:** Conveniently located on campus in Foust Hall at the corner of Preston Street and East Campus Drive, University Health Services offers easy access to services. Free parking for UHS patients is available at designated signs in Lot 29 on the east end of Foust Hall. Additional parking is available in Lot 33 on the south side of Foust and metered parking is located in Lot 28 at the west end of Foust. There are automatic doors at the north and west entrances.

**Clinic Hours:** University Health Services hours are 8:00 a.m.-5:00 p.m., Monday-Friday. A same day/future date appointment system minimizes waiting time. To schedule an appointment, call 989-774-5693. Walk-in service is available for urgent problems in Foust 202. A registered nurse is available at 989-774-6591 to answer questions about health-related concerns, including the quickest and most appropriate way to obtain care.
Clinical Services Available: Board certified family practice physicians work in teams with a nurse practitioner or physician assistant to provide care such as that available in a family physician’s practice, urgent care center, or community health department. Emphasis is on educating the student to become an informed health care consumer as well as an active partner in their treatment plan, and on supporting healthy decision making. Services include the diagnosis and treatment of illnesses and injuries, physical examinations, women’s health care, immunizations and travel health care, TB skin testing, and allergy injections with serum from the patient’s allergist. There is a laboratory and pharmacy on site. Both accept orders from outside providers. X-rays and other diagnostic imaging services are available through an agreement with a local radiology clinic.

Clinical Services Not Available: University Health Services does not provide major or elective surgery; hospital inpatient care; emergency room care for life-threatening injuries and illnesses; obstetrical care; physical therapy; fitting of glasses or vision care; or dental care. Referrals to area specialists and other health care providers are arranged as needed.

Payment: There are fees for the care provided, but payment is not required on the date of service. The charges may be paid by cash, check, money order, credit or debit card in the Business Office, Foust 108 within three business days or be placed on the student’s personal CMU account and paid by the statement due date. If the student provides proof of current health insurance coverage (a health insurance card or photocopy of it) and signs an authorization permitting Health Services to bill the health plan for the services, insurance billing is provided. The student remains responsible for payment of any co-pays and/or deductibles.

Health Services participates with a number of health insurance and prescription drug plans. For additional information, contact the Business Office at (989) 774-3058.

Student Health Insurance: It is highly recommended that all students obtain health insurance coverage to protect them from potentially devastating unanticipated medical expenses while they attend CMU. The student should carry their health insurance card or a photocopy of it and have at least a basic understanding of how the plan works, e.g., benefits, exclusions, pre-authorization requirements, co-pays and deductibles. A national health insurance provider offers and administers a health insurance plan for CMU students, their spouses and dependents. Plan benefits, premium costs, enrollment deadlines and application form are available through a link online at www.healthservices.cmich.edu and from the Health Services Business Office, Foust 108.

Medical Records: Medical records are maintained for students and other authorized users of University Health Services. At age eighteen, students are legally adults. The information in their medical record is confidential and will not be released to anyone without the student’s knowledge and written authorization, except as required or permitted by law. Students are asked to complete a pre-entrance health history report and pre-matriculation immunization record to provide a baseline of important health information to help assure safe, effective, and appropriate care when the student is seen at Health Services or in the event of a medical emergency.

Concerns, Comments, Suggestions: University Health Services seeks to continually improve services. Feedback from CMU students is valuable in that process. Concerns, comments and suggestions regarding the services can be shared by completing a Patient Satisfaction Survey at the time of the visit, speaking with a staff member or unit manager, or contacting the Director by calling (989) 774-3944 or sending an email to healthservices@cmich.edu.

Additional Information: For additional information about University Health Services visit the UHS website at www.healthservices.cmich.edu.

Residences & Auxiliary Services

John S. Fisher, Associate Vice President/Residences & Auxiliary Services
Bovee UC 203
(989) 774-7472

Campus Residency Policy
Central Michigan University’s campus residency policy requires that freshman and sophomore students live in a residence hall. The sophomore requirement may be waived in years when space is not available on campus. The sophomore requirement will be waived for the 2008-2009 academic year.

Students who have completed four full-time undergraduate semesters may live in housing of their choice with the exception of those on merit and talent based scholarships of $1500 or greater, who are required to live on campus their sophomore year. Those who reach the four-semester requirement at midyear are still required to complete the full term of the agreement for the academic year (fall and spring semester).

Exceptions to the policy will usually be granted if special circumstances are outlined prior to the signing of the residence hall agreement. Exceptions include:
1. Living at home with parents and commuting within a 60-mile radius.
2. Married and living with your spouse.
3. Veteran with one or more years of active service.
4. Enrolled for six semester hours of credit or less.
5. Special or guest student.
6. 21 years of age or older.

All on-campus residence hall contracts are for one academic year. If a student does not qualify for an exception to the policy at the beginning of the year, the student must fulfill the contract even though he or she may become eligible for an exception during the year. Requests for exception must be submitted in writing to the Office of Residence Life.

Each student is expected to abide by the on-campus residency policy. Those who fail to do so will not be considered officially registered and will be dematriculated.

Residence Halls
Almost 6,000 students live in residence halls on campus. Several lifestyle options are offered in the residence halls and students may choose the one most comfortable for them, whether coeducational, all women or all men. Alcohol free options are available. Also available are residential colleges and theme halls, which may enhance a student’s area of study or connection to campus.

There are currently four student success centers located in the residence halls. A Success Center is just that, a center where student services professionals work together to help residents become successful. An academic advisor and a counselor in residence are available in each Success Center.

(continued)
All Residence Hall Directors are also trained academic advisors to further help the residents of their halls succeed.

Our residence halls do far more than house and feed students. Residents have the opportunity to attend educational, social, recreational and community building programs.

The physical arrangements of the 22 residence halls vary, but all suites in all but one hall contain a private bath, one, two or four bedrooms and a study room. Study areas are also provided on each residence hall floor.

Professional and paraprofessional residence hall staff members are selected, trained, and supervised by the Office of Residence Life. The ability to understand and communicate with students as well as the capability of providing positive leadership is an important criteria in the selection of staff. Staff training is geared toward further development of these qualities.

Questions concerning the residence halls should be addressed to the Office of Residence Life, Bovee University Center, Room 201, Central Michigan University, Mount Pleasant, MI 48859. (989) 774-3111, fax (989) 774-6410 or e-mail at Reslife@cmich.edu

Residential Colleges
As a joint venture with faculty members in several departments, the Office of Residence Life will offer the following residential colleges for the 2008-2009 academic year:

- College of Business Administration in Carey Hall
- College of Education and Human Services in Calkins Hall
- College of Health Professions in Emmons Hall
- College of Science and Technology in Woldt Hall
- School of Music in Herrig Hall

Theme Halls
In addition to Residential Colleges, several halls are also home to students who have a common interest or are recipients of a specific scholarship. These include:

- Faith Focused Community in Larzelere
- Greek Leadership Residential Community in Troutman Hall (for sophomores)
- Honors Program in Larzelere and Trout Halls
- Leader Advancement Scholars in Barnes Hall
- Multicultural Advancement and Lloyd Cofe Scholars in Troutman Hall
- Public Service Residential Community in Barnes Hall

Campus Dining
Campus is conveniently covered with 14 dining locations that open as early as 7:00 a.m. and close as late as 1:00 a.m. From residential restaurants, to the food court, convenience stores, and coffee houses...the dining program at CMU affords you quality, variety, and convenience-all at a great value-no matter where you’re located on campus. We offer a satisfying mix of products, facilities, and menus that are state of the art, trend topping, and often nationally recognized.

Four residential restaurants on campus provide sit-down, all-you-care-to-eat meal service to both on- and off-campus students, faculty, and staff through the use of flexible dining memberships. Numerous retail stores on campus, including the food court, coffee houses, and convenience stores, offer the flexibility of paying with FLEX Dollars, among other forms of payment, for quick snacks or complete meals. Off-campus students, faculty, and staff can log on to www.cmucampusdining.com to enroll in the convenience of a dining membership that offers the right mix of meals and FLEX Dollars to fit your busy campus schedule. Load additional FLEX Dollars onto your dining membership online at any time to ensure you’re set for the semester.

For health conscience students, CMU Campus Dining serves up online nutritional analysis for on-campus residential restaurants at www.cmucampusdining.com. Computer kiosks at the entrance to each residential restaurant allow guests to make educated dining decisions by reviewing the nutritional content for the foods they plan to eat. The Campus Dining website also offers current hours of operation, daily menus for on-campus restaurants, voluntary dining membership sign-up, Campus Dining contact information, email special subscriber offers, employment information, catering guides, and much more.

On campus restaurants include: Real Food on Campus (RFoC), Fresh Food Company (FFCo.), Robinson Residential Restaurant, Merrill Residential Restaurant, the Down Under Food Court, Goodies To Go, Java City Coffee House - Park Library & Health Professions Building, C3 Convenience Store, C3 Express, the Market, Trackside at the SAC, and the Muncherie and Tidbits snack stores. Visit www.cmucampusdining.com for a campus map with all dining locations.

Questions regarding dining on campus should be directed to the CMU Campus Dining office, located in the Bovee University Center room 201, at (989) 774-6406. To enroll in a dining membership or compliment your current dining membership with additional FLEX Dollars, visit www.cmucampusdining.com.

University Apartments
There are 424 university apartments available on campus. One, two, and three bedroom apartments are assigned according to date of application. Application forms are available at any time and application should be made well in advance of desired occupancy. The majority of family housing units are furnished. Rates include utilities, cable hook-up, internet hook-up, and local telephone service.

There are also a limited number of single student apartments available on campus. One bedroom units typically house one student and two bedroom units house two students. Single student apartments are reserved for juniors, seniors, and graduate students, with graduate students receiving first priority. Applications are available at the beginning of each semester for the next semester.

Questions concerning the University Apartments should be addressed to the University Apartments Office, Bovee University Center, Room 201, Central Michigan University, Mt. Pleasant, MI 48859 (989) 774-3284, fax (989) 774-6410, or e-mail at apts@cmich.edu.

Bovee University Center
The Bovee University Center is the home of many student services, student organizations and retail operations. It is located in the center of campus which makes it a popular gathering place for students, faculty and staff. The Center provides the University community opportunities for involvement in group discussions, meetings, conferences, informal conversations, and social activities.

A variety of entertainment and special events are sponsored in the University Center throughout the year, making it an exciting place to be. Some of the programs held are Welcome Back to campus, dance lessons, and Holiday Festival.

Services that are located at the Bovee University Center include the Student Services Court, Career Services, Minority Student Services, Multicultural Center, Native American Programming, and International Education. Also housed there are the Student Government Association, Program Board and thirty-six student organizations. Several retail operations are provided such as the Bookstore, which carries a full line of required class materials, student supplies, CMU clothing, and gift items; Independent Bank, a full-service bank; Central Box Office; Campus Information; the Chip Card ID office, and a copy center.

Complete food service operations are offered, including the Down Under Food Court (open Monday-Friday) and Quiznos Subs/Freshens Yogurt.
University Recreation
(UREC)
Stan Shingles, Director
SAC 200
(989) 774-3686

Student Activity Center
University Recreation (UREC) conducts recreational programs for the campus community largely occurring in the Student Activity Center (SAC). The SAC is a 175,000 square foot facility, which is fully accessible to those with disabilities. The SAC is a state of the art, holistic activity center focusing on fitness, wellness, and leisure pursuits for all members of the university community.

Facilities are provided for aquatics, weight training, fitness, jogging, bowling, billiards, aerobics, racquetball, archery, golf ball driving, table tennis, basketball, volleyball, badminton, tennis, floor hockey, indoor soccer, dances, movies, and other various kinds of leisure activities. These activities are directed by a highly qualified campus recreation staff in conjunction with a large student staff. Programs are designed to help students, faculty, and staff maintain a high-quality lifestyle and to provide choices for active use of leisure time. Activities are offered within the program areas of open recreation, intramurals, fitness, social activities, and special events. The department also advises sport clubs.

Open recreation is a “self-service” program, available on a drop-in basis to persons who show a current CMU ID card validated for building use. Swimming, jogging, golf ball driving, table tennis, pick-up basketball, weight training, and other activities, plus reservations for racquetball, tennis, wall ball, and volleyball fall within this program.

The Intramural Sports Program consists of meets and leagues in more than 30 sports. The program includes a wide range of individual, dual, team, outdoor, combative, and racquet sports. With few exceptions, all activities are offered in three divisions: men, women, and co-recreational.

Fitness activities revolve around student staff who are trained to lead others in aerobics, weight fitness circuits and exercises, aqua-aerobics, jogging, and other activities. A fitness assessment center is staffed with qualified and supervised students who conduct fitness profiles, counsel on exercise and nutrition, and assist users in developing personal fitness programs.

Special events include road races, sports tournaments, and functions associated with Homecoming, Alumni Weekend, Collegiate Alcohol Awareness Week, Collegiate Drug Awareness Week, and charitable projects.

Social events include dances, bowling, billiards, pool parties, card tournaments, TV viewing, movies, and other programs.

Sport clubs are special interest units which require memberships, normally for a fee. Groups participate among themselves; some compete against other colleges; and most provide trips, movies, and other services to members.

For more information about URec programs and facilities, contact the URec office at (989) 774-3686.

Varsity Athletics
David Heeke, Director
Rose Center 100A
(989) 774-1711

Many students participate in the men’s and women’s athletic programs under the guidance of experienced coaches. It is our intention to field teams composed of student athletes who compete with excellence, integrity, intensity, and teamwork. The ultimate justification and aim of the programs is to affect human growth in the participant. Athletics at Central Michigan is regarded as an integral part of the educational offering of the university. Two of the primary purposes of the athletics program are to provide a variety of intercollegiate sports to meet the participation needs of both men and women, while at the same time meeting the desires of the general student to view athletic events, and to provide common, unifying college activities which contribute to the morale and spirit of the university community.

The Athletic Committee of the CMU Academic Senate makes recommendations regarding athletics standards, programs, and facilities, and has important responsibilities in their review.

The men’s and women’s programs have Division IA classification in the NCAA and the University complies with the code of that association. All CMU teams are affiliated with the Mid-American Conference.

The men’s program sponsors baseball, basketball, cross country, football, indoor and outdoor track, and wrestling.

The women’s athletic program includes basketball, field hockey, gymnastics, softball, volleyball, cross country, soccer, and indoor and outdoor track.

Students must be enrolled full time and be in good standing with the university to participate in intercollegiate athletics for CMU. Contact the head coach for additional information on any particular sport.
Student Ombuds Officer

Susan Rademacher  
Warriner Hall 114  
(989) 774-3010

The Student Ombuds Officer works to resolve issues between students and university offices, departments or individuals. Students with concerns that they have not been able to resolve through normal procedures are encouraged to contact the Student Ombuds Officer. Office hours are Monday through Friday from 9 a.m. to 12 p.m. and 1 to 3 p.m.

If, in the course of the investigation, the Ombuds Officer determines that a university policy is the source of the problem between the student and the university, the Ombuds Officer may recommend changes to the policy. Online: [http://www.cmich.edu/ombuds/](http://www.cmich.edu/ombuds/).

Public Relations and Marketing

Steve Smith, Interim Associate Vice President  
West 108  
989-774-3197

Public Relations and Marketing provides communication and marketing services that reinforce CMU’s goals, mission, key messages, and identity. PRM units include broadcast media relations, print media relations and news services, publications, marketing, photography and videography, licensing and advertising, and sports information.

Public Relations and Marketing staff members advise university employees on methods to identify and communicate with CMU’s primary audiences, including prospective students, alumni, and donors.

Public Relations and Marketing news and broadcast professionals also serve as university liaisons with print, broadcast, and electronic media. They plan effective publicity and news coverage of CMU events and meetings and provide media professionals with a variety of CMU resources and services.

Public Relations and Marketing produces the university’s alumni publications, Centralight and Maroon & Gold Review; the weekly online faculty/staff newsletter, Inside CMU; the monthly television show, “Inside Central”; the daily CMUTODAY faculty/staff e-mail list, and many other University publications.

Development and Alumni Relations

Michael A. Leto, Vice President  
Carlin Alumni House  
989-774-2382

Alumni Relations

The Alumni Relations Office exists to perpetuate and enhance the lifelong relationship between the university and its graduates. Avenues to involve graduates and current students with CMU in a productive and positive manner are continually developed. Alumni are encouraged to return to campus and participate in traditional campus activities such as Homecoming and Alumni Reunion Weekend. Additionally, we encourage CMU alumni to get involved in their local Alumni Association chapters and clubs.

The Alumni Office helps foster a sense of spirit and pride in Central Michigan University students through the Student Alumni Association. The association was established to create opportunities for both alumni and students to build relationships and assist with the growth and development of CMU.

The Alumni Relations Office publishes Centralight and the Maroon and Gold Review, sources of campus and alumni news to communicate with graduates of CMU.

CMU encourages alumni to enjoy an ongoing relationship with the university and to remain active with their alma mater. In recognition of this lifelong relationship, Central Michigan University has dedicated the Carlin Alumni House on campus to welcome its 172,000 graduates.

For further information, please contact the Executive Director of Alumni Relations, located in the Carlin Alumni House; telephone (989) 774-3312 or toll free (800)358-6903.

Development

Development and Alumni Relations, in addition to serving as the administrative home of the CMU Alumni Association, generates private gift revenues from individuals, corporations, and foundations in order to accomplish the purposes and objectives of Central Michigan University. In pursuit of its mission, Development and Alumni Relations provides fund-raising leadership to complement, encourage, and support university-wide efforts to achieve comprehensive objectives for resource acquisition. At the same time, Development and Alumni Relations seeks to ensure the continuity of the fund-raising effort and to achieve a continual and substantial growth in gift revenues throughout the university.

For assistance or additional information, contact the Vice President of Development and Alumni Relations at (989) 774-2382.
Biological Station on Beaver Island

Central Michigan University Biological Station (CMUBS) is located on Beaver Island in northern Lake Michigan about 32 miles northwest of Charlevoix, Michigan. These facilities, nestled amongst 48 acres of pristine habitat, are located on the sandy eastern shore of Beaver Island, and are about six miles south of the island’s only village, St. James. CMUBS offers a diversity of academic courses during the spring and summer months and provides research facilities throughout the year. A new, spacious Academic Center with state-of-the-art teaching laboratories, computer laboratory, library, and full-mediated lecture room is available and equipped to accommodate courses that rely on both laboratory and field experiences. A bookstore, natural history museum and research buildings are also provided as classroom support. Additionally, CMU owns 310 acres elsewhere on the island that serve a variety of field courses offered at the station by providing a highly diverse sites for field trips, research and other activities. A deep water access boathouse, also owned by CMU, is located on Whiskey Point in St. James at the north end of the island.

Students reside in either dormitories or rustic cabins in the modern CMU campground, eat in the large cafeteria and relax and study in the spacious Matt and Ellie Hohn main lodge. Its location amongst such a variety of untouched natural habitat makes CMUBS an ideal location for a biological station. For more information call Dr. James Gillingham at (989) 774-3173 or visit our website at www.cst.cmich.edu/centers/cmubs.

Brooks Observatory

The Brooks Astronomical Observatory, located atop Brooks Hall, is administered by the Department of Physics. The dome contains a modern 16-inch telescope and there is an open air observation platform for naked eye or small telescope observing. The observation platform also offers an excellent view of the campus.

The observatory facilities are open to the student body and the public one evening each month during the academic year. Weather permitting, visitors can view celestial objects with the telescope. Contact the Department of Physics for open night schedules or to arrange special tours and viewing sessions for groups. Further information about the observatory and the open nights can be found at: http://www.phy.cmich.edu/people/astnews/brks_ast.html.

The Museum of Cultural & Natural History

The Museum of Cultural & Natural History, located in Rowe Hall at the northeast corner of the campus, is devoted to informal as well as formal learning through the study of real objects. The museum’s foundation rests on its extensive collections of anthropology and archaeology, geology, Michigan history, and zoology. Collection items are available for use by university faculty, staff and students to enhance classroom learning and are loaned to school groups within the region.

Faculty in anthropology, art, biology, education, geology and history regularly make use of collections, exhibits and learning laboratories. In addition, the museum schedules programs for university and community groups in the Gerald L. Poor School Museum, a one-room schoolhouse located at the corner of Preston and West Campus Drive. Museum exhibits and visual collections storage are located in Brooks Hall, Beaver Island Biological Station, and Neithercut Woodland as well as the main exhibit hall and temporary exhibit gallery in Rowe Hall.

The museum also serves as the home for the undergraduate minor program in Museum Studies. For information about the museum or museum studies program, visit the museum offices in 103 Rowe Hall or website, www.museum.cmich.edu, or call 989-774-3829.

Neithercut Woodland

Neithercut Woodland, an area of approximately 252 acres, is located about four and a half miles northwest of the village of Farwell on Michigan Route 115. This natural woodland area was a gift to CMU by William A. Neithercut, class of '09.

The McNeel Nature Center on the tract, and the surrounding environs are used by students and the public for conservation education and environmental interpretation.

The Woodland contains three separate hiking trails. Exhibits, demonstrations, and experimental facilities for developing innovative approaches to environmental education are also available at Neithercut Woodland. The McNeel Center building is constructed of cedar logs and its 1,900 square feet of floor space provides a central meeting room, kitchenette, laboratory, storage area and rest rooms. Up to 50 people can be comfortably accommodated at a meeting in the center. Neithercut Woodland is available for students and the public on a year-round basis. For further information call (989)774-3227.
Office of Research and Sponsored Programs

The Office of Research and Sponsored Programs (ORSP) supports research and creative activities by faculty, staff, and students. Faculty and staff research is supported through the Faculty Insight Teams program, Grant Development Reimbursement Awards, President's Research Investment Fund, Research Excellence Funds, and grants through the Faculty Research and Creative Endeavors program. Programs to assist student research are the Research and Creative Endeavors Grants, Publication and Presentation Grants, and Summer Scholars Program for undergraduates and the Dissertation Support Program, Research and Creative Endeavors Grants, and Publication and Presentation Grants for graduate students, which are administered by the College of Graduate Studies. ORSP organizes the annual Student Research and Creative Endeavors Exhibition held near the end of each academic year and the Faculty Excellence Exhibition held each March. In addition, the office provides a number of workshops regarding internal and external research funding and research conduct issues, and provides oversight and function for all phases of the research process.

For additional information on the programs or services, contact the Office of Research and Sponsored Programs at (989) 774-ORSP or visit http://www.orsp.cmich.edu.

Public Broadcasting

Television. Central Michigan University owns and operates public television station WCMU-TV/DT, channel 14, Mt. Pleasant; WCML-TV/DT, channel 6, Alpena; WCMW-TV/DT, channel 21, Manistee/ Ludington; and WCMV-TV/DT, Channel 27, Cadillac; channel 46, Traverse City; and channel 69, Leland.

CMU Public Television is on the air 125 hours each week, seven days a week, the year around, servicing a potential audience of nearly 2.5 million people. The stations are also on cable systems throughout the state.

CMU Public Television is staffed by professional production personnel, as well as by students seeking a practical background in broadcasting. The stations are affiliated with the Public Broadcasting Service. CMU Public Television is located in the Public Broadcasting Center on the corner of Mission and Broomfield.

Radio. CMU Public Radio operates seven transmitters serving central and northern Michigan, and Sault Ste. Marie, Ontario. These include: WCMU-FM (89.5 MHz) from Mt. Pleasant; WCML-FM (91.7 MHz) from Alpena; WCMW-FM (95.7 MHz) from Oscoda; WWCM (96.9) from Standish; WUCX-FM (90.1 MHz) from Bay City; WCMZ-FM (98.3 MHz) from Sault Ste. Marie; and WCMW-FM (103.9 MHz) from Harbor Springs.

The stations broadcast 24 hours a day, 365 days a year, providing programming of an informational and cultural nature. The broadcast schedule includes NPR news, and classical music, traditional music, jazz, opera, and radio drama.

The CMU Public Radio stations are staffed by full time professionals and provide valuable experience for a staff of student employees. The stations are affiliated with National Public Radio, and members of the Michigan Public Radio Network.

Special Olympics Michigan

Since 1972, Special Olympics Michigan has been headquartered on the campus of CMU. Special Olympics Michigan provides year-round sports training and athletic competition in 23 sports for children and adults with intellectual disabilities. Over the years, thousands of students, faculty and staff have served as volunteers for Special Olympics Michigan. CMU student volunteers assist at the State Summer Games, held on campus the first week of June; at the State Winter Games, held in early February; and as general office assistants at the Special Olympics Michigan headquarters. CMU volunteers can become involved in the local Special Olympics program either in Mount Pleasant or in their home communities. For more information about Special Olympics Michigan or to become a volunteer, call 774-3911 or visit the website at http://www.somi.org.

Student Media

Student Media Board of Directors. The Student Media Board of Directors, composed of students and professional journalists, appoints editors, formulates policies and provides direction for the two publications, Central Michigan Life and The Central Review. For additional information write or visit Room 436, Moore Hall, or call 774-3493.

Central Michigan Life. This is the official university student newspaper published three times a week while the university is in session. It is student-written and provides practical experience for journalism students. It covers campus events and major city, state, and national news. The online version is on www.cm-life.com.

The Central Review. This student publication is the official university literary magazine. It is published once each semester.

Cocurricular Electronic Media. The Broadcast & Cinematic Arts Department operates the following facilities to provide professional training experiences:

Moore Hall Television. Operating locally over cable channel 34, Moore Hall Television offers broadcasting students practical experience in all phases of television programming including News Central, Mid-Michigan’s only daily television news program. Other series include game shows, movie reviews, and dramatic features.

WMHW-FM. Operating at 91.5 mHz, WMHW-FM is the laboratory radio station for the School of BCA. It transmits its stereo signal to Isabella County throughout the year to offer applied experience in every aspect of radio operations and management.

University Art Gallery

The mission of the University Art Gallery is to integrate an awareness of contemporary art into the cultural landscape of mid-Michigan. An integral part of the Department of Art, UAG generates, travels, and provides educational access to exhibitions featuring both emerging and established regional, national, and international artists whose work has received little exposure in Michigan. The gallery also hosts exhibitions of CMU faculty, student, and alumni work. UAG works to promote the discussion of contemporary art through artist lectures, residencies, and workshops. In addition, the UAG provides exhibition tours and works with area schools to develop appropriate educational outreach programs for grade and high school students.

University Art Gallery is located on the campus of CMU at the corner of Franklin and Preston streets. The gallery is open Monday through Saturday. For current hours and exhibitions, call 989-774-3800 or visit http://www.uag.cmich.edu.

Musical Events

The School of Music offers a wide variety of musical events, most of which are available at no charge to students and the general public. For a listing of upcoming events, phone the School of Music office or visit the School of Music website at www.mus.cmich.edu.
Admissions

Admissions Office
102 Warriner Hall
(989) 774-3076
1-888-292-5366 (toll free)
FAX: 989-774-7267
e-mail: cmuadmit@cmich.edu
www.cmich.edu (click on Admissions)

We are Centered on Your Success!

We are pleased at your interest in Central Michigan University. Some of the best students from Michigan and beyond have earned their degrees at Central. Students tell us they select Central because of...

• Our size. CMU's highly qualified faculty and staff provide personalized attention for our students.

• Our fine academic reputation and variety of degree programs. We have over 150 fields of study available.

• Students at Central are able to obtain a high quality education at a reasonable price.

• Central's beautiful campus. Stately traditional buildings are blended with high-tech facilities and modern equipment.

If you attend Central Michigan University, one of your first contacts will be with the Admissions Office. Please let us know if we can be of any service. You may contact the Admissions Office at 1-888-292-5366 or through e-mail at cmuadmit@cmich.edu.

Tours. One hour walking tours are offered Monday through Friday beginning hourly from 10:00 a.m. to 2:00 p.m. from mid September to mid April and beginning at 11:00 a.m. and 1:00 p.m. from mid April through mid September. Weekday campus visits, tours, and advising appointments may be arranged with the Admissions Office, as well as information on weekend and special visit events.

The Admissions Office receives all applications and supporting information used to determine undergraduate admission to Central Michigan University. Each application receives individual attention. The admissions process takes into account the following: grades, ACT or SAT test scores, caliber of high school program, school official recommendations, exceptional talents, involvement beyond the classroom, leadership potential, and record of good citizenship.

Applicants who have strong high school records supported by comparable test scores will be given priority. The Dean of Students has authority to grant waivers of entrance requirements.

Academic Background

Your academic success at Central Michigan University is greatly enhanced when your preparation includes a solid academic foundation. To prepare for university admission and academic challenge, you will want to strive for high achievement in rigorous subjects.

Recommended high school background:

• English 4 years
• Fine and Performing Arts 2 years or more
• Foreign Language 2 years or more
• Mathematics 4 years
• Biological and Physical Science 4 years
• History and Social Science 4 years
• Computer Literacy 1 year

A student may enter Central Michigan University at the beginning of any one of the following annual sessions:

• Fall Semester (August - December, 16 weeks)
• Spring Semester (January - May, 16 weeks)
• Summer Session I (May - June, 6 weeks)
• Summer Session II (June - August, 6 weeks)

Your admission and matriculation at this university are privileges with certain responsibilities. The university reserves to itself, and the student concedes to the university, the right to cancel admission and matriculation and to require withdrawal whenever it becomes evident that the student is not conforming to the standards of scholarship or conduct established by the university.

You may be admitted in one of the following ways:

Freshman Admission

Admission Requirements. If you are a graduate of a high school, academy, or equivalent, you may be admitted provided a prediction of success at CMU can be determined from your high school performance, ACT scores and all other facts included in the application.

When to Apply. We encourage you to file your application at the beginning of your senior year in high school. If you have completed high school, we encourage you to apply at least six months in advance of your anticipated semester or session.

How to Apply. You may obtain an application form from your high school counselor, the CMU Admissions Office, or apply online at https://apply.cmich.edu. An application will automatically be sent to you if you have taken the American College Test (ACT), scored well and have also indicated CMU as one of your top three choices.

To apply:

• Complete the paper application and give it to your high school counselor or use the online application.

• Be sure to include the $35.00 application fee.

• Your counselor will fill out the appropriate portion and forward it to our Admissions Office with your official school records.

• Entering freshmen are required to take the American College Test (ACT). Contact your high school counselor for information about the testing procedure. Send the test results to CMU.

Transfer Admission

Admission Requirements. If you are transferring from a community college, or other college or university, you will be considered for admission to CMU provided your official records to date demonstrate your ability to successfully complete academic coursework.

A student who is dismissed from another collegiate institution is ineligible for consideration at CMU for at least one semester following dismissal.

When to Apply. Plan to file your application at least one month in advance of the date of anticipated enrollment. Students should note that financial aid applicants must apply by February 15 for fall and summer and by October 1 for spring.

How to Apply. Complete an application for admission obtained from your college counseling office, from the Admissions Office at CMU, or online at https://apply.cmich.edu. Be sure to include the $35.00 application fee.
Have an official transcript from each college you have attended sent directly from each college to the CMU Admissions Office.

If you have earned less than 30 semester hours of academic credit at the time of application, have your high school send a copy of your record to our Admissions Office.

Transfer of Credit. Your courses from other regionally accredited colleges will be considered for transfer credit if they are relevant to a program at Central. We encourage you to review the transfer credit policy found in the Undergraduate Bulletin (see index for page number). At least sixty academic hours of your bachelor degree requirements must be earned at a fully accredited four-year, degree-granting institution like Central Michigan University.

Transfer Credit Evaluation. Transfer students are required to submit official transcripts directly from all previous colleges attended, at least one month in advance of their scheduled orientation. Courses and credits from institutions not declared on the application for admission will not be allowed on a Central Michigan University degree program. Willful failure to list all colleges or universities you have attended or are attending at time of application may result in dismissal from CMU.

Your Transfer Credit Evaluation showing transfer of credit and Central Michigan course numbers and equivalencies will be provided prior to registration at the required orientation and advisement program.

If transcripts are not submitted early, delays in processing Transfer Credit Evaluations may be unavoidable. Students may also access the website (http://www.cmich.edu/pro_transfer.htm) to review how courses transfer from a Michigan community college.

MACRAO Articulation Agreement

If you transfer from a community college in Michigan with a transcript documented as having satisfied the MACRAO Agreement, you will also have satisfied the University Program portion of the general education requirements at CMU. All other students may refer to the General Education Requirements section of the Undergraduate Bulletin for guidelines on the applicability of their transfer credit toward University Program requirements.

Advisement and Registration for Freshmen and Transfer Students

If you are a new freshman or transfer student, you are required to attend an on-campus orientation and advisement program prior to your first registration. Complete information is mailed to newly admitted students. Academic orientation takes place during the summer for the fall semester and in early January for the spring semester.

You will have an opportunity during orientation to meet individually with academic advisors, faculty members, classmates, and current CMU students. You will be extremely busy as you explore career options, outline your program of study, and register for your first class schedule.

If you are undecided on a program of study, do not worry. You will not be alone. Our experienced staff will assist you as much as possible. There will be career information, tours of campus, and special activities to acquaint you with our university.

Returning Undergraduate Students

If you have previously completed coursework through Central Michigan University, discontinued your enrollment, and are now returning for additional classes, you should request registration information from the Registrar’s Office.

Rematriculation

A student whose eligibility to enroll (matriculation) has been canceled for academic reasons may apply for rematriculation to the Committee on Rematriculation. Students who have been suspended (applies only to first semester freshmen or transfers) may apply for immediate rematriculation. Normally, petitions for rematriculation for students who have been dismissed will not be considered until 12 months after the student has been dismissed.

A student who has been dismissed twice will be rematriculated only under extraordinary circumstances and then not until 24 months after the student’s second dismissal.

Students should plan to return for Fall or Summer sessions as readmittance into the University for Spring semester creates course scheduling difficulties for the student.

Permission to return is not automatic, but is based upon the merits of each case. Students may be expected to show academic improvement at the community college level. Students will be expected to show solutions to the difficulties that prevented them from achieving academic competence.

A written application, payment of the rematriculation application fee, and a personal interview are required. Supporting documents may also be requested. Applications may be obtained from the Academic Advising and Assistance Office. Completed applications and the receipt for payment of the rematriculation application fee should be submitted at the time of the personal interview. The fee may be paid at the Student Service Court in the Bovee University Center. Interviews for students seeking to return for the Fall semester will be held in May and June; interviews for students seeking to return for Summer semester will be held in April. Last minute interviews are not conducted.

Non-Degree Guest Admission

Admission Requirements. If you are a student who is regularly matriculated at an accredited college or university and in good academic standing, you may be admitted as a guest. A guest student is urged to have the courses that he or she plans to take approved in advance by the home institution to which the student plans to transfer the CMU credits. A guest student must have at least a C average at the home institution in college-level courses. Your guest admission is valid for only one university semester or session at a time. Guest applicants who have completed fewer than 30 semester hours to date may be requested to provide additional evidence of academic readiness.

When to Apply. You should apply well in advance and at least one month prior to the start of classes.

How to Apply. Guest applications are available at all Michigan colleges or by request from the CMU Admissions Office, or at https://apply.cmich.edu/. If you wish to register as a guest in more than one semester or session, you must submit a new guest application for each session in which you wish to take courses.

Non-Degree Special Admission

Admission Requirements. If you hold a bachelor degree or a higher degree from an accredited college or university, you may be admitted to the university as a non-degree special student upon presentation of credentials showing that you hold such a degree or degrees. If you are 21 years of age or older and you are unable to furnish the usual admission credentials, you may be admitted as a non-degree special student with the permission of the Director of Admissions. Before a non-degree special student can qualify for a degree or certificate from this university, you must have met the requirements for regular admission.

When to Apply. If you are considering non-degree special admission, you should apply well in advance and at least two weeks prior to the start of classes.
How to Apply. The regular application form available in each Michigan high school or the CMU Admissions Office may be used for non-degree special admission. Students should check non-degree status on the application.

Dual High School Enrollment

Prior to your graduation from high school, you may be admitted as a non-degree high school concurrent student. This admission allows selected students to extend, enrich, and broaden their educational experiences, while completing high school requirements.

Admission Requirements. Interested students should have at least junior standing. Occasionally special exceptions are made by the Director of Admissions. Your high school record to date must satisfy the requirements for new Central Michigan University freshman admission. A recommendation is required from a high school counselor.

When to Apply. We encourage concurrent students to complete their application well in advance and at least one month preceding the start of classes.

How to Apply. You will need to complete all the application steps for regular freshman admission described in this section.

Senior Citizen Program

CMU offers a program for Senior Citizens who are 60 years of age, prior to the start of the semester in which they are enrolling, to register for on-campus undergraduate classes on an audit basis. There will be no charge for tuition or other course fees. Enrollment is based on space availability in the course(s) and with the approval of the instructor. Contact the Registrar’s Office, Warriner 212, (989)774-3261 for further information.

International Student Admission

For information on CMU international programs, contact the Office of International Education, Bovee University Center 106, (989) 774-4308 (http://www.oie.cmich.edu/prostudents/default.asp); or the English Language Institute, Anspach Hall 212, (989) 774-2567 (http://www.eli.cmich.edu/default.asp).

Central Michigan University welcomes applications from international students. Students interested in admission for undergraduate study should complete the International Student Application for Admission. Applications can be completed online at http://apply.cmich.edu/ and all other required documents should be sent to the Office of International Education for processing at least 3 months prior to the intended semester of enrollment. Students interested in admission to the English Language Institute should complete the English Language Institute application. Additional information regarding admission requirements for undergraduate and English Language Institute study is listed below.

University Admission for Undergraduate Study

1. Complete and submit an International Student Application for Admission with the $35 application fee (credit card, check or money order written from a U.S. bank).
2. Submit official transcripts from all secondary and post-secondary institutions attended with English translations, if necessary.
3. There are three ways to demonstrate competency of English in order to be admitted to undergraduate study at the University:
   a) Regular admission: Applicants with scores of 550 PBT, 213 CBT, or 79 iBT and above on the Test of English as a Foreign Language (TOEFL) or scores of 6.5 and above on the International English Language Testing System (IELTS) may be granted regular admission.
   b) Conditional admission: Applicants with TOEFL scores from 500 to 549 PBT, 173 to 212 CBT, or 61 to 78 iBT or IELTS scores from 5.5 to 6 may be granted conditional admission. Upon arrival at the University, students will be required to take an English language placement test administered by the University’s English Language Institute (ELI). The results of the test will be used to determine the number and type of English language courses they need to take through the ELI. Conditional admission students will be allowed to take a certain number of degree courses and can only take a full load of undergraduate degree courses after they satisfactorily complete all required ELI courses.
   c) Bridge admission: Applicants with no TOEFL or IELTS scores or whose TOEFL or IELTS scores are below the minimum requirements for regular or conditional admission can be admitted as undergraduate students through the University’s International Bridge Program. Students admitted to the Bridge Program must take the ELI Placement Test upon arrival at the University. If a student’s ELI Placement Test Results show that he or she must take Intensive English Program courses, the student must satisfactorily complete all required Intensive English Program courses before beginning his or her undergraduate degree coursework. If a student’s ELI Placement Test Results show that he or she is under the Dual Program category, the student can take a certain number of academic courses. If a student’s ELI Placement Test Results show that he or she does not need to take any ELI courses, the student must take a full load of academic undergraduate courses.

4. International students must demonstrate adequate financial support as determined by the United States Department of Homeland Security regulations. A certified bank statement must accompany the application documenting the ability to cover one full academic year of residency at CMU Office of International Education. Upon admission to CMU and when proof of financial support has been received, a Form I-20 or Form DS 2019 will be sent to the student to assist them in acquiring a student visa. Foreign Student Advisors at the Office of International Education provide assistance before the student’s arrival and throughout their CMU experience. Students will receive assistance with university housing, transportation from the airport, academic advising, information on health care, and orientation to the American lifestyle. International students are required to carry university approved health insurance. The Office of International Education provides extensive services for all international students (see index for page number).

English Language Institute Admission

1. Complete and submit an English Language Institute (ELI) Application for Admission with the $35 application fee (credit card, check or money order written from a US bank).
2. International students must demonstrate they have adequate financial support as determined by the United States Department of Homeland Security regulations. A certified bank statement must accompany the application documenting the ability to cover one full academic year of residency at CMU.

English Language Institute students will take an English placement test upon arrival at the university to determine which English courses must be taken. After demonstrating English proficiency, as determined by the ELI policies, and if department and university admission requirements are satisfied, these students may be granted admission to the program of their choice.

Graduate Admission

Prospective students interested in graduate education should obtain a College of Graduate Studies Bulletin by contacting the College of Graduate Studies, 100 Foust Hall (989) 774-GRAD; http://www.grad.cmich.edu/
New Student Orientation

Central Michigan University’s orientation program provides you and your family with a comprehensive introduction to the university prior to your first registration for classes. Whether you are a new freshman or a transfer student from another college, you will get answers to your questions and more at an orientation session. New undergraduate students are required to attend orientation to finalize admission.

Orientation occurs in two phases:

- **Academic Orientation**
  Academic Orientation is designed to provide specific information about CMU academic programs, academic planning and first semester registration. All new freshmen, transfer students, and family members are offered several choices of session dates and times prior to the start of first semester classes.

- **Campus and Community Life Orientation**
  Your first university welcome meetings occur during Campus and Community Life Orientation. Immediately prior to start of the fall semester, new students are invited to an extensive offering of programs, special events, and informational meetings focused on you and your success in the Central Michigan University community.

What will new freshmen learn at orientation?

When you enter Central Michigan University, you will have to find your way around campus and live with a new set of roommates. You will have to find the library and enroll in classes. These topics, and many more, will be discussed in an orientation session. For example, you will:

- Meet classmates, student leaders, professors and academic advisors to learn about the university experience;
- Select and register for your first semester’s classes;
- Explore career, major and/or minor interests;
- Meet with representatives from university support offices, such as Scholarships and Financial Aid, Student Employment Services, and Residence Life.

What will transfer students do at orientation?

We recognize that the needs of new Central Michigan University transfer students are very specific. At orientation, you will have an opportunity to have general as well as detailed university questions answered. Students attending transfer orientation will:

- Register for first semester classes with the assistance of academic advisors and faculty advisors;
- Explore major, minor, and degree requirements;
- Visit with representatives from university support offices such as Scholarships and Financial Aid, Student Employment, and Residence Life.

Family Member Orientation

Parents, guardians, and spouses of new students often appreciate the opportunity to accompany their students to campus for academic orientation. This unique opportunity to experience life at Central Michigan University is highly recommended. Family members who wish to attend orientation will be scheduled for the same orientation date as their student. To provide the most specific information, parent and student meetings are held separately.

Orientation for family members of new students will include:

- Discussion with staff from CMU student service offices such as Career Services, Scholarships and Financial Aid, Academic Advising, and Health Services;
- Tour of CMU campus.

Scheduling an Orientation Session

Scheduling an orientation session is easy. Upon admission to Central Michigan University, detailed orientation scheduling information is mailed to you. You will be required to submit the $175.00 new student orientation fee and request an orientation date that fits your schedule.
Planning Your Academic Career

Beginning Your Studies

Making Choices as a Student

You have many academic decisions to make. You will choose a major and possibly a minor, and enroll for courses which lead toward a desired degree or certificate. Students enrolled on the Mt. Pleasant campus will be required to complete an authorization for a major or sign a statement of intent to major by the time they earn 56 hours of credit. Some students have already made these choices when they begin their university studies, but most appreciate the opportunity that CMU offers to sample many areas of study through the University Program portion of the General Education Requirements. The University Program is required of all students and is explained later in this Bulletin. While taking University Program classes, you prepare yourself to make career and life choices from a broadened perspective, while fulfilling needed General Education requirements for graduation.

Your Advisors

As a freshman or a transfer student, you will receive individualized advisement on course selection during academic orientation. The registration process is computer assisted to help you obtain preferred courses. The Academic Advising and Assistance Office (Bovee University Center 215) offers general advising in the areas of the University Program, Competencies, and Degree Requirements. When you are ready to consider a major, arrange an appointment with a faculty advisor in the department teaching courses of interest to you. You may want to visit with faculty in several departments, but once you have selected a major, you will be assigned a faculty advisor in that department.

There are additional offices to help you:

- The Counseling Center (102 Foust, 774-3381), the Career Services (Bovee University Center 215, 774-3068), the Center for Student Services (204 Ronan, 774-3309), and Business Student Services Office (105 Grawn, 774-3124) offer professional assistance in career decision making.
- The Undergraduate Academic Services area of the Registrar’s Office (Warniner 123, 774-3504) provides a number of services. Personnel evaluate academic credits earned at other schools, provide academic counseling for degree and graduation requirements, and audit students’ records for graduation.

Your Schedule

Academic programs and course offerings of the university are in a constant process of change and revision in response to advancements in knowledge, and to changing student needs and societal demands. In accordance with this process, academic programs and courses may be changed, deleted, or rescheduled. The time you will need to complete a degree depends on your decisions concerning such variables as the academic load you will carry, whether or not you will attend summer sessions, and how well you use academic advisement services. You may complete a bachelor’s degree in less than four years or it may take you longer. Conditions producing high demand for certain courses and programs where resources are limited may require some students to take more than the estimated minimum amount of time to complete their programs. There may also be special requirements for certain degrees as well as major and minor programs. These requirements may include a particular grade point average, specific demonstrated competencies, or other prerequisite experience as specified in the Bulletin. You should be aware that students who have entered academic programs may be dropped or suspended from these programs for unsatisfactory academic performance or for other program-related problems.

You are urged to discuss your progress toward a degree periodically with your academic advisor as you continue your program of study at CMU.

Progress Toward Your Degree

The rate at which you move toward completion of your degree and how economically you progress depend largely on the decisions you make. Making use of the academic advisement services available on campus is strongly recommended. The advisors can help you clarify your plans, as well as help you plan the most efficient route toward your degree.

Academic Load

The following is a typical academic load for a CMU undergraduate:

<table>
<thead>
<tr>
<th>Semester/Session</th>
<th>Typical Academic Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Fall Semester</td>
<td>14 -18</td>
</tr>
<tr>
<td>• Spring Semester</td>
<td>14 -18</td>
</tr>
<tr>
<td>• 3 weeks of Summer Session</td>
<td>3</td>
</tr>
<tr>
<td>• 6 weeks of Summer Session</td>
<td>5-7</td>
</tr>
<tr>
<td>• 12 weeks of Summer Session</td>
<td>12-14</td>
</tr>
</tbody>
</table>

A degree requires a minimum of 124 hours of credit. Some degrees and majors have minimums above 124. In order to graduate within four years with a degree, a student must average at least 31 hours of credit each year.

Abilities and circumstances of students vary greatly. Each student should carefully weigh these factors when deciding the number of hours to carry during a semester or session as well as the length of time to be expended in fulfilling requirements for a degree. Some students will carry lighter loads and take longer to fulfill the requirements. As a guideline, freshmen are advised to take no more than 15 hours of credit during the first semester on campus.

No undergraduate student will be permitted to be enrolled in more than 21 credits per semester. Exceptions may be granted with approval of the dean or his/her designee.
First Year (Freshman):  
(0-25 cr. hrs.)
• Meet with your General Academic Advisor during your first semester to clarify requirements on the University Program, competency, or any other questions you have encountered since academic orientation. Review your Bulletin carefully.
• At CMU, several advising services, classes, and self assessment instruments are available to assist you in your academic and career decision making. Some suggestions include:
  • Talk to CMU advisors in academic departments, Academic Advising and Assistance, Career Services, or the Counseling Center regarding academic programs that interest you.
  • Consider taking CED 101 (1) Careers and Self Exploration.
• Complete the requirements for admission to the College of Business Administration outlined in the Undergraduate Bulletin.
• Meet with your academic advisor. Schedule an appointment with your academic advisor.

Second Year (Sophomore):  
(26-55 cr. hrs.)
• Continue your search for a major and/or minor.
• If you have decided on your major and/or minor, consult with the appropriate departmental advisor(s) to authorize the major/minor and define requirements for graduation.
• Continue coursework on the University Program, competencies, and major/minor. Competency requirements must be completed by 56 credit hours. Review your progress on completion of the University Program and competency requirements with your general academic advisor. Search for a study abroad or an internship opportunity by contacting CMU’s Office of International Education or an internship coordinator in the Career Services office. Your academic department of choice may also have advice for you.

Third Year (Junior):  
(56-85 cr. hrs.)
• Authorize your major and/or minor in the appropriate department(s) if you have not done so.
• Once you have your major and/or minor authorized, schedule a pre-graduation audit appointment in Undergraduate Academic Services, Warriner 123, 774-3504. An Assistant Director will review your individual course of study and determine remaining graduation requirements. Register with Career Services.

Teaching:
• If you have completed Cycle I, and if you plan to student teach during the following fall semester, apply for student teaching in January (see Standards Leading to Teacher Certification in the Index for page number).
• Follow the procedures for admission to the Teacher Education Program.
• Schedule an appointment with your academic advisor.
• Visit the Center for Student Services website at www.ehs.cmich.edu/css for admission information.

Fourth Year (Senior):  
(86-124 cr. hrs.)
• Once you have earned 86 credit hours, apply for graduation at the Undergraduate Academic Services Office, Warriner 123, 774-3504 (see Requirements for Graduation in the Index for page number). Questions about graduation requirements should be referred to this office.
• Complete graduation requirements as indicated on your Graduation Audit. Develop skills for your job search at Career Services. Skill development workshops and information are available regarding job search techniques, interviewing skills, and portfolio development.
• If you are interested in attending graduate school, you should talk to faculty members in the field you would like to pursue. They will have information on how to go about selecting, applying to, and preparing for graduate school.

Special Notes for Transfer Students:
• During your first semester, check with the Registrar’s Office to be sure that a final transcript from each of your previous colleges is on file.
• If you have questions following orientation, meet with a general academic advisor, and attend a Transfer Transitions meeting to review your transfer credit evaluation, University Program and competency requirements.
• Review the above steps to verify your progress toward completion of all CMU degree requirements.
Advisement & Counseling Services

Central Michigan University’s comprehensive advising and counseling services offer an important resource for all undergraduate students. Academic advisors make every effort to familiarize students with university requirements, career, and academic information. Students with emotional or personal concerns have opportunities to work with professional counselors. Using these support services is easy, convenient and critical to success.

All new freshmen and transfer students register for first semester classes at Academic Orientation. After that, students are urged to regularly discuss academic progress with any or all of the following academic support services.

Academic Advising and Assistance

The Academic Advising and Assistance office provides academic guidance, assistance and support to undergraduate students through advising, tutoring and academic support classes. The university academic probation, suspension and dismissal policies are monitored by this office. Staff members are also responsible for the planning and delivery of the undergraduate orientation program. The website is http://advising.cmich.edu/.

General Academic Advisors. In 1994, CMU’s advising program received national recognition as an Outstanding Institutional Advising Program by the National Academic Advising Association. All entering undergraduate students are assigned a general academic advisor. Advisors assist entering and returning students with course selections, fulfilling General Education and other degree requirements. General Academic Advisors also offer advice on career and academic decision making, transfer credit, study skills and referrals to specific on-campus services.

Student Success Centers. One of the features of the Academic Advising and Assistance office is the convenient access students have to the office services. Four Student Success Centers are conveniently located in residence hall quads, enabling new students to meet with advisors where they live. Since General Academic Advisors also assist off-campus and undecided upper-class students, appointments are scheduled in Student Success Centers. A centralized advising and assistance office is located on the main floor of the Bovee University Center, room 215, to offer comprehensive services to students in the area of tutoring or on-campus referrals.

Academic Assistance. Assistance is available to provide help to students who, in the process of earning a degree, find that they need to know more about study skills and reading techniques. Staff members provide assistance for students who are experiencing academic difficulty with course content by providing tutorial help.

Tutoring. Many students find that they need some assistance in one or more subject areas. Tutoring is available for 100 and 200 level courses and those courses which are part of the University Program. Some subjects are considered to be traditionally difficult, and walk-in tutoring is provided in these subject areas. Mathematics and physics have walk-in tutorials. Other subjects are tutored in small groups or one-on-one. Tutoring is free, and to obtain a tutor, students must visit Academic Advising and Assistance, Bovee University Center 215.

Academic Skills Courses. Courses in study skills are offered to help students gain a wide range of study techniques. Skills covered include time management issues, motivation, note-taking skills, test taking techniques, stress management and problem solving methods. A course in reading improvement is offered to assist students in comprehension and critical reading skills.

These classes are: EHS 102 (2) Academic Learning Skills; EHS 103 (3) Reading Improvement; EHS 104 (2) Study Skills for Non-Traditional Students.

Academic Departmental Advising

When students are ready to consider a major or minor program, it is recommended that an appointment be made with a faculty advisor in the department teaching courses of interest. Students may want to visit with faculty in several departments before making a decision. Once a major/minor is selected, a faculty advisor is assigned by the academic department.

Undergraduate Academic Services

Undergraduate Academic Services, a branch of the Registrar’s Office, is designed to assist and advise students regarding academic concerns. Personnel in this office are prepared to assist students with concerns regarding interpretation of policies and procedures in the university bulletin, degree and graduation requirements, and the transfer of credit to CMU.

Pregraduation Audit. Students may schedule an appointment for a pregraduation audit after their major and minor are authorized. An appointment will be made with an Assistant Director who will review their individual courses of study and determine remaining graduation requirements. This appointment is ideally scheduled during the student’s junior year (56 credits) when an advisor can best help with planning the completion of remaining requirements and clarify any additional policies or procedures.

Transfer Credit Evaluation. This area of Undergraduate Academic Services receives and reviews transcripts for evaluation of undergraduate transfer credit. Students may schedule an appointment with the Coordinator of Transfer Credit if they have questions regarding transfer credit.

Transferability of coursework from Michigan community colleges as well as partial listings from other colleges and universities can be viewed at http://www.registrars.cmich.edu/transfercredit/. Students planning to complete coursework at colleges not listed should check with this office in advance.

Graduation Audit. During the semester or session in which students will complete 86 credit hours, an application for graduation audit should be submitted. You may obtain an application for graduation at the Student Service Court or Undergraduate Academic Services. An official graduation audit indicating remaining requirements for your degree will be e-mailed to you. Appointments may be made to confer with the Graduation Coordinator regarding remaining questions, concerns or clarifications.

Applications are processed in the order they are received for each graduation. Submission should be based on the following timeline: September 15 for May graduation, January 15 for August graduation, and April 15 for December graduation. For further information, refer to “Requirements for Graduation” in this Bulletin.

In the process of earning a degree, many students find it helpful and necessary to seek assistance with specific questions.

Contact the Undergraduate Academic Services Office, 123 Warriner Hall, 989-774-3504.
Counseling Center

The Counseling Center is located in 102 Foust Hall; to make an appointment call 989-774-3381. Hours are 8:00 a.m. to noon and 1:00 p.m. to 5:00 p.m. Monday through Friday when the university is open. The Counseling Center’s website (www.counsel.cmich.edu) provides information on center services and counselors, current groups, community resources, confidential on-line mental health screening, emergency services and links to a wide variety of information. Counseling Center faculty includes professional counselors, psychologists, and social workers. On occasion, trainees who are advanced graduate students in various counseling related graduate programs may also provide counseling services. Students may meet individually with a counselor by making an appointment. Daily urgent and emergency appointment times are available. Please tell our receptionist if you need to see a counselor the same day you call for an appointment. In these situations contact the center as early in the day as possible.

The Counseling Center provides free and confidential services for currently enrolled CMU students for various issues and concerns that may negatively impact one’s academic success, interpersonal relationships, health or safety. Services include short-term / time-limited individual and group counseling, consultation and referral for: 1) dealing with personal issues such as an urgent situation or crisis, anxiety, depression, loneliness, transition to college concerns, identity, alcohol/drug abuse, eating concerns, stress management, relationship concerns, couples concerns, family stress, loss, relapse prevention, sexual orientation, strengthening coping skills, and personal growth and development; 2) exploring career options, particularly to assist undecided students and students who are questioning choices they already have made; 3) improving academic success by reducing stress and focused anxiety (e.g., test, math, speech), and learning time management skills; and 4) assisting primary and secondary survivors of sexual and domestic violence, stalking, and harassment. Group services are designed to address many topics and vary depending upon student needs from semester to semester.

Other Counseling Center services include providing consultation and referral information for students, parents, faculty and staff; growth groups and workshops; in-service training; outreach programs; referral to on and off-campus agencies and services; providing a supervised practicum or internship site for psychology, counselor education and social work students; and selected mental health screening and interest testing. During the academic year counselors are on-call after hours to assist students and CMU faculty and staff when there are urgent / emergency student mental health concerns. Call CMU Police at 989-774-3081 to contact the on-call counselor. There is no charge for counseling, consultation and related services; however there may be a modest fee to cover the costs associated with test administration.

Residence Life Counselors in Residence

Counseling assistance may also be obtained through Counselors in Residence who work in offices at various residence hall locations. Counselors in Residence may be contacted in the:

- East Area Student Success Center (989-774-1879)
- North Area Student Success Center (989-774-4928)
- South Area Student Success Center (989-774-3089)
- Towers Student Success Center (989-774-1480)

Sponsored by the Office of Residence Life, the Counselors in Residence program places licensed professional counselors directly in the residence halls. Their mission is to provide staff consultation, support, crisis intervention, and proactive prevention efforts addressing mental health issues, and to act as a bridge to partner offices supporting the personal growth and academic progress of students. Services are free, but there may be a modest fee to cover costs associated with assessment and testing, which are used as needed.

Testing & Diagnostic Services

Human Development Clinic. The Human Development Clinic provides counseling and assessment services for community residents, area schools, and Central Michigan University students. Advanced graduate students in counseling ordinarily perform these services under the supervision of the counselor education faculty members. Among the services provided are: individual counseling for children, adolescents and adults; family and couples counseling; play therapy for children; general counseling for emotional problems and life adjustment concerns; career and employment counseling; referral help in finding appropriate services for identified problems; and consultation with community agencies and schools. In addition to serving the needs of referrals during the school year, the Human Development Clinic provides counseling and consultative services during the summer months. The Human Development Clinic is administered by the Department of Counseling and Special Education and may be reached at 774-3532; 210 Rowe Hall.

Psychological Training & Consultation Center. The Psychological Training and Consultation Center (PTCC) is a CMU training clinic which offers low cost psychological services, including psychotherapy and psychological assessment, to CMU students and community residents. Services are provided by CMU Psychological graduate students who are training at PTCC, and they are supervised by Psychology Department faculty. In addition, specialty services are offered through PTCC, including the Violence Reduction Treatment Program, Parent-Child Interaction Therapy, Trauma and Anxiety Disorders Clinic, Neuropsychological Assessment Clinic, the Childhood ADHD Clinic, and the Learning Acceleration Program. For further information about any PTCC program, or to request services, main telephone number is 989-774-3904.

Speech, Language, and Hearing Clinics. The Speech, Language and Hearing Clinics are operated by the Department of Communication Disorders at CMU and at various ancillary facilities in the Central Michigan University. The Clinics are part of the Carls Center for Clinical Care and Education. The clinics emphasize complete programs in evaluation, diagnosis, and rehabilitation of children and adults with communication disorders. The academic and clinical service programs in Audiology and Speech-Language Pathology are nationally recognized by full accreditation from the Council of Academic Accreditation of the American Speech-Language-Hearing Association. In addition, the Audiology program is the first in the USA to be nationally recognized by full accreditation from the Accreditation Commission for Audiology Education of the American Academy of Audiology.

Each summer, the Department of Communication Disorders operates a five-week coeducational specialty program on campus for children and adolescents up to the age of 18 years, with speech, language, voice, fluency and hearing disorders. Participants receive approximately 60 hours of therapy at the Carls Center for Clinical Care and Education. Since its inception in 1946, this specialty clinic has served thousands of children with a wide range of communication disorders. Enrollment in this clinic is approximately 75 children each summer. The staff is comprised of university faculty; practicing speech, language, and hearing professionals; graduate students; and selected undergraduates.

The Department of Communication Disorders offers students in Audiology and Speech-Language Pathology diverse clinical opportunities. Practicum experience may include medical care facilities, educational settings, preschool language programs, hospital clinics, voice clinics, otolaryngologists’ offices, and adult work activity centers. Students completing the master’s degree program in Speech-Language Pathology or the professional doctoral degree (Au.D.) in Audiology fulfill the academic and clinical requirements for the Certificate of Clinical Competence issued by the American Speech-Language-Hearing Association.

The Carls Center for Clinical Care and Education, Health Professions Building, 989-774-3904.
The primary goals of Career Services are to assist individuals in recognizing career development as a lifelong process and to develop decision-making and job search skills that are useful throughout life. Career development is an important element of an individual's sense of identity and personal happiness. Successful career development is dependent on two factors: self-knowledge and knowledge of the world of work. The likelihood of career success is increased dramatically when individuals invest incremental effort over a significant period of time. We believe you should continue the process of career exploration and selection during your first semester and throughout your CMU experience. By utilizing Career Success, you will enhance your ability to make an informed career decision. All of us at CMU are committed to providing you with quality experiences and helping you prepare for your career.

Support Services

Advising. A professional staff member in Career Services is available to advise students in all fields of study. You may call to make an appointment with an advisor to discuss industry trends, salary trends, available resources, time frames for conducting a job search, preparations for your job search, and information about internships. You are encouraged to communicate with a career advisor throughout your CMU career beginning with your first semester. Frequent contacts with an advisor will enhance the quality of your career development and increase your knowledge of resources and job market trends. Visit http://www.careers.cmich.edu/decision_successsteps.pdf for steps on Planning for Career Success

Resume Critiques. Career Services offers individual assistance in the development of your most critical tool.

Mock Interview Program. This program is designed to provide an opportunity to practice your interviewing skills prior to actual scheduled interviews with employers. This practice interview is a video taped session with an intern who is trained to provide feedback about verbal and nonverbal techniques.

Registering for Internships, Employer Referrals, and On-Campus Interviewing. Individuals who are actively pursuing professional employment or internship opportunities register with Career Services by using eRecruiting. This system is available to undergraduates, graduating seniors, graduate students, and alumni. Registering allows you access to the on-campus interviewing program, internships, the employer referral program, and a subscription to the employment vacancy bulletin up to 6 months after graduation.

Assessments (Career “Tests”). Try the free FOCUS assessment tool to help clarify your interests, values, skills, personality, education preferences and leisure time interests. Use this information as a basis for further discussions about your choice of major and future with a career counselor, friends, and family members. Additionally, this tool can be used to research job titles that fit your personal profile. Also available through Career Services, for a nominal charge, are the Myer's-Briggs Type Indicator (MBTI) and the Strong Interest Inventory (SII). You must make an appointment with a career counselor to receive and discuss your results.

What Can I do with a Major in...? Program. These hour-long sessions are usually held in the Bovee University Center, on Wednesdays, and are intended to give participants a better understanding of the highlighted major and career possibilities. Programs are open to any CMU student; no pre-registration is required.

On-Campus Interviewing Program

This program is designed to give students access to a well-established base of employers who schedule and conduct interviews on campus for a variety of entry-level positions. A list of employers and their interview dates is available on our website (www.careers.cmich.edu), in our Grawn Satellite office and in Career Services.

For more information, contact Career Services, 215 Bovee University Center, 774-3068, or visit us online at www.careers.cmich.edu.
Information regarding dates and procedures for on-campus advance registration for a particular semester or session is published by the Registrar’s Office in the Class Schedules.

Registration information and the Class Schedule will be available in the Bovee University Center Bookstore, the Registrar’s Office, Student Service Court and the Registrar’s web page (http://www.registrar.cmich.edu) in February for Summer Sessions, in March for Fall Semester, and in October for Spring Semester.

The academic year at CMU is divided into the following sessions: two semesters of sixteen weeks each, and two summer sessions of six-weeks each with concurrent three-week and twelve-week sessions. For opening dates see the university calendar at the front of this Bulletin.

Some Saturday and evening classes are offered on campus each semester for students who cannot attend at other times. If you wish to take a class for graduate credit, be sure that you are admitted to the College of Graduate Studies. Information regarding the types of graduate admission are given in this Bulletin. For additional information, contact the College of Graduate Studies, 100 Foust, 774-GRAD.

### Fees and Deadlines

**New Freshmen and Undergraduate Transfer Students.** New freshmen and undergraduate transfer students are expected to follow directions in the admissions letter concerning the enrollment deposit. The deadline for payment of the New Student Orientation Fee and refund is stated in the letter.

**Extended Credit Courses.** Course fees will be collected at the organization meeting of the class.

### Change of Registration (Drop/Add)

Students are allowed to add or drop courses, using the CMU Portal, through the fifth day of classes. This is for Fall and Spring Semesters. Check the Summer Class Schedule for Summer deadlines. Information regarding dates and procedures may be found in the appropriate Class Schedule.

### Withdrawing from a Class After Drop/Add Period

1. Students should obtain a “Withdrawal Request Card” from the Registrar’s Office or Student Service Court, ask the instructor to sign it and return the card to the Registrar’s Office. A student has officially withdrawn from a class when the Registrar’s Office or Student Service Court receives a properly completed card before the published deadline.

2. Students will receive W’s as an indicator of withdrawal through the tenth week of the Fall or Spring semester or through the midpoint of all courses shorter than one semester. No course may be withdrawn after this time.

3. In cases involving academic dishonesty, withdrawal is not an option and the determination of the grade shall be left to the discretion of the instructor.

4. If an instructor refuses to sign the card, or is not available, the student may appeal informally to the department chairperson. This policy does not supersede the Policy on Academic Dishonesty.

5. Under unusual circumstances, a student may appeal to the Registrar for exceptions to this policy. If a waiver is made, the Registrar’s actions may be appealed to the Dean of Students.

### Semester Withdrawals

Information on completely withdrawing from the university for a semester appears in the Academic Policy and Procedures section of this Bulletin.

### Internships, Practica, Independent Studies, Study Abroad, Theses

Students registering for internships, practica, independent studies, study abroad, or theses should be aware that these courses ordinarily require permission of the instructor and/or department chairperson prior to registration. Specific registration requirements for each course will appear in its Bulletin description; these requirements must be observed.
Tuition and Fees

Tuition and fees are established by the Board of Trustees and are subject to possible change. At the time of this printing of the Bulletin, tuition and fees had not been established for the 2008-09 academic year. Contact the Receivable Accounting office at 989-774-3618 for updated information, or see http://www.cmich.edu/tuitionguarantee/terms_and_conditions.htm for updates.

<table>
<thead>
<tr>
<th>Level of Courses</th>
<th>07-08 Rates Per Credit Hour*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Michigan Residents</td>
</tr>
<tr>
<td>• New Undergraduate students:</td>
<td>304.00</td>
</tr>
<tr>
<td>• Students admitted to the</td>
<td>388.00</td>
</tr>
<tr>
<td>College of Graduate Studies:</td>
<td>388.00</td>
</tr>
<tr>
<td>• Courses Level 600-999:</td>
<td>441.00</td>
</tr>
</tbody>
</table>

*2008-09 tuition rates for incoming freshmen and transfer students will be set prior to the start of the academic year.

Tuition and fees for Registration are to be paid in full when billed. Tuition and fees for Phase II Registration as well as fee adjustments made necessary by changes during the Drop and Add period will result in refunds or billings within a short period of time after the Phase II registration period. Any past due financial obligations must be paid prior to the time of registration. Registration will not be accepted until such obligations are met.

Late Registration Fee

An additional fee of $100.00 will be charged to all students registering on or after the first day of classes for the semester or session.

Additional Fees

Auditing Courses. Students who attend classes but do not desire credit pay the same fees and are governed by the same regulations as students desiring credit.

Non-Payment Tuition Charge

Payment for tuition must be received by the stated date or the student will be assessed a $100.00 Non-Payment Tuition Charge.

Delinquent Account Policy

Central Michigan University sends monthly billing statements electronically to the CMU global e-mail addresses. Students are responsible for accessing these monthly e-mail statements for their account balances and payment due dates. Students may incur late fees if the monthly balance is not paid by the scheduled due date. Past due accounts may be referred to a collection agency and, if referred, the fees assessed to the University by the collection agency will be added to the student's account. Once the account is referred to a collection agency, the past due account will be reported to the Credit Bureau.

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 was established to protect the privacy of student records. CMU is, therefore, not allowed to release details of a student’s financial account without prior written consent from the student. Authorization to Release Information forms, which will allow release of information to specific individuals, are available on the Web on the Student Portal - Receivable Accounting at http://www.controller.cmich.edu/downloads/Receivables/authform.doc or in the Student Service Court, Bovee University Center, UC 119.

New Student Orientation Fee

A $175.00 New Student Orientation Fee is assessed to all newly-admitted undergraduate students for new student advisement and orientation.

Approximate Expenses for Two Semesters

The following fees are presented below for planning purposes only, and are subject to possible changes. For graduate expenses consult the current Graduate Bulletin. Note: Financial aid does not cover the new student orientation fee.

<table>
<thead>
<tr>
<th>Expenses</th>
<th>Michigan Residents</th>
<th>Non-Michigan Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition¹</td>
<td>$9,120.00</td>
<td>$21,210.00</td>
</tr>
<tr>
<td>Room and Board</td>
<td>7,236.00</td>
<td>7,236.00</td>
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<tr>
<td>Books and Supplies</td>
<td>1,000.00</td>
<td>1,000.00</td>
</tr>
<tr>
<td>Personal/Travel</td>
<td>1,665.00</td>
<td>1,534.00</td>
</tr>
<tr>
<td>Total</td>
<td>$19,021.00</td>
<td>$30,980.00</td>
</tr>
</tbody>
</table>

¹Based on 30 credits.
Resident Status Policy

I. Introduction

Central Michigan University has a commitment to the resident taxpayers of the State of Michigan to provide educational opportunity at lower tuition rates than those charged to non-residents. Therefore, there are two general tuition rates, one for Michigan residents and a higher one for non-residents. For the purposes of determining resident status by CMU, “domicile” is defined as the place where an individual intends his/her true, fixed and permanent home and principal establishment to be, and to which the individual intends to return whenever he or she is absent. This policy is designed to explain how a student may demonstrate the required intent and establishment of a domicile in Michigan. An individual whose activities and circumstances, as documented to the University, demonstrate that he or she has established a domicile in Michigan and intends to be domiciled in Michigan will be eligible for classification as a resident. An individual whose presence in the state is based on activities and circumstances that are indeterminate or temporary, such as (but not limited to) educational pursuits, will be presumed not to be domiciled in Michigan. The burden of proof is on the applicant to demonstrate with clear and convincing evidence that he or she is eligible for resident classification under this policy. To overcome a presumption of non-resident status, a student must file a properly completed Application for Resident Status and document with clear and convincing evidence that a Michigan domicile has been established. Furthermore, the University reserves the right to audit enrolled or prospective students at any time with regard to eligibility for resident classification and to reclassify students who are registered under an improper resident status.

II. Determining Resident Status

A student’s status as a resident or non-resident is established based upon the domicile of the student. The circumstances and activities to be considered in determining a student’s domicile are set forth below:

A. Resident Status:
   1. A student who is a dependent of parents who have established Michigan as their domicile will be classified as a resident for tuition purposes.
   2. A student 18 years or older who has attained independent status may be classified as a resident for tuition purposes if the student:
      a. documents one year of continual physical presence in the state as one of the criteria for determining eligibility for resident status, as described in II.C., below, and,
      b. demonstrates by clear and convincing evidence that the student has established Michigan as his or her domicile and intends to make Michigan the student’s permanent home, each independent of the student’s attendance at CMU.

B. Non-Resident Status:
   1. Any student under the age of 18 whose parents have not established Michigan as their domicile is presumed to be a non-resident student.
   2. Any student over the age of 18 who is financially dependent on parents who have not established Michigan as their domicile is presumed to be a non-resident student.

C. Physical Presence in Michigan:
   1. Generally, an individual must document one year of continual physical presence in the state as one of the criteria for determining eligibility for resident status. The year to be documented will be one year immediately preceding the first day of classes of the term in question. The year of continuous presence is never the only criterion used for determining resident eligibility and, in itself, will not qualify a student for resident status.

2. If the one year resident requirement is fulfilled while a student is enrolled in this University or another institution of higher education, it is presumed that this student has not established domicile in the State of Michigan. However, if substantial information exists (see below for other factors) which clearly demonstrates the establishment of a Michigan domicile, the individual may be immediately eligible for resident status prior to the passage of one year.

D. Circumstances and Activities Which Lend Support to Claim of Michigan Resident Status:

The following circumstances and activities, though not conclusive or exhaustive, may lend support to a claim that a student has established Michigan as the student’s domicile and intends to make Michigan the student’s permanent domicile.

1. A person appointed to a regular full-time position at the University (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be classified as a Michigan resident for tuition purposes.

2. A non-resident transferred to Michigan for employment purposes (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be classified as a Michigan resident for tuition purposes.

3. A student who has no previous history of living in the state but enrolls at CMU while on military assignment in Michigan, or who enrolls immediately upon discharge from military service, may be classified as a Michigan resident for tuition purposes.

4. A student who is married (or a same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office) to a person who is classified as a Michigan resident will be classified as a Michigan resident for tuition purposes.

5. A student who has a parent or grandparent who graduated from CMU will be classified as a Michigan resident for tuition purposes.

6. A student who graduated from CMU will be classified as a Michigan resident for tuition purposes.

7. Additional Circumstances and Activities:
   a. Continuous presence in Michigan during periods when not enrolled as a student.
   b. Reliance upon only Michigan sources for financial support.
   c. Domicile in Michigan of family, guardian, or other relatives or persons legally responsible for the student.
   d. Former domicile in the State of Michigan and maintenance of significant connections therein while absent.
   e. Ownership of a home in Michigan if purchased without support from non-Michigan sources.
   f. Admission to and full-time practice of a licensed profession in Michigan.
   g. Long-term military commitments in Michigan.
   h. Permanent full-time employment in Michigan, provided that the applicant’s employment is the primary purpose for the applicant’s presence in Michigan.
   i. Spouse’s full-time, permanent employment in the state, provided that the spouse’s employment is
the primary purpose for the student’s presence in Michigan.

In classifying an individual as a resident the University will consider other circumstances and activities which indicate an intent by the individual to make Michigan the individual’s domicile or which indicate that the individual has made Michigan his or her domicile.

E. Circumstances and Activities which Generally Lend No Support to a Claim of Michigan Resident Status:
The following circumstances and activities are temporary and indeterminate and, in and of themselves, do not demonstrate a permanent domicile in Michigan:
1. Voting or registration for voting in Michigan.
2. Possession of a Michigan driver’s license.
3. Employment that is temporary or short-term.
4. Employment in a position normally held by a student.
5. Ownership of a Michigan home if purchased with support from non-Michigan sources.
6. The lease of living quarters.
7. Payment of Michigan income or property taxes.
8. Financial hardship of the student caused by having to pay a higher tuition rate, or by any other reason.
9. The applicant’s statement of intent to be domiciled in Michigan.
10. Presence in Michigan while in attendance at CMU or another institution of higher education.

F. Non-Citizens Lawfully Admitted to the United States:
(Lawful admission status is determined by the Director of the Office of International Education, or designee.)
1. A non-citizen of the United States (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be eligible for classification as a Michigan resident for tuition purposes, if such person has an appropriate, current visa, and meets the requirements for Michigan resident status specified in this policy.
2. A non-citizen transferred to Michigan for employment purposes (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be classified as a Michigan resident for tuition purposes, if such person has an appropriate, current visa, and meets the requirements for Michigan resident status specified in this policy.
3. A non-citizen appointed to a regular full-time position at CMU (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be classified as a Michigan resident for tuition purposes, as long as such person meets the requirements for Michigan resident status specified in this policy.
4. A non-citizen student who has a parent or grandparent who graduated from CMU will be classified as a Michigan resident for tuition purposes, if such person has an appropriate, current visa.

III. Procedure to Determine Resident Status
The procedure for determining resident status for an individual is as follows:
A. Undergraduate Students at Time of Admission:
1. The Director of Admissions, or designee, shall determine the initial resident status of new undergraduate students.
2. If an individual disagrees with the initial decision of the Admissions Office, that individual must file a properly completed Application for Resident Status with the Registrar’s Office. The Application for Resident Status must be received before the seventh day after the first day of classes during the semester or term in which the individual is first enrolled at CMU. The Registrar’s Office shall consider the Application for Resident Status and provide the individual with a written decision. If the individual continues to disagree with that decision, the individual may file an appeal following the procedures set forth in IV, below.
B. Graduate Students at Time of Admission:
1. The Dean of the College of Graduate Studies, or designee, shall determine the initial resident status of new graduate students prior to the first registration.
2. If an individual disagrees with the decision of the College of Graduate Studies, that individual must file a properly completed Application for Resident Status with the Registrar’s Office. The Application for Resident Status must be received before the seventh day after the first day of classes during the semester or term in which the individual is first enrolled at CMU. The Registrar’s Office shall consider the Application for Resident Status and provide the individual with a written decision. If the individual disagrees with that decision, the individual may file an appeal following the procedures set forth in IV, below.
C. All Students Requesting a Change in Resident Status:
The procedure for determining whether a non-resident student has acquired Michigan resident status is as follows: An individual must file a properly completed Application for Resident Status with the Registrar, or designee. The Application for Resident Status must be received before the seventh day after the first day of classes during the semester or term in which the individual is first enrolled at CMU. The Registrar, or designee, shall consider the Application for Resident Status and provide the individual with a written decision. If the individual disagrees with that decision, the individual may file an appeal following the procedures set forth in IV, below.

IV. Appeal Process
If an Application for Resident Status is denied, the individual may request that his or her Application for Resident Status be reviewed by the Resident Status Appeal Committee. The following procedures shall apply:
A. The Resident Status Appeal Committee shall be composed of the Director of Admissions, the Registrar, the Director of International Education, the Dean of Students, and the Dean of the College of Graduate Studies, or their respective designees. At least three of these individuals must participate in an appeal. The decision of the majority of those participating in the appeal shall be conclusive.
B. The appeal must be made in writing and must be received by the Student Ombuds Officer within fourteen (14) calendar days of the date of the denial letter. If the deadline falls on a weekend or a University holiday, it will be extended to the next business day.
C. All contact with the Resident Status Appeal Committee must be in writing, unless otherwise requested by the Committee. An individual who wishes the Committee to consider information in addition to that provided with the Application for Resident Status must submit that additional information to the Resident Status Appeal Committee, in writing, with the appeal request. (continued)
Tuition Status for Graduate Fellows and Assistants

For the purposes of determining tuition rates, doctoral level fellows and assistants are given in-state tuition for the duration of their program of study. Master's and specialist's level fellows and assistants are classified as Michigan residents only during the academic year of the award (including subsequent summer).

Residency Status for Migrants

Migrant status is one factor considered when determining if a student is domiciled in Michigan for tuition purposes. Michigan migrants are defined as individuals who have made their livelihood in seasonal work in the State of Michigan and have traveled interstate for this purpose. Migrant students will meet the residency requirement if they, or their parents, or legal guardians, were employed in Michigan for at least two months during each of three of the preceding five years. Verification of employment as migrant workers should be secured from the Michigan Farm Labor and Rural Manpower Services Office. Other appropriate evidence may also be used by migrant workers to prove their residency.

Housing Fees

Residence Halls. Various contracts are available depending on individual meal plans. Information regarding the different plans, payment due dates, etc., can be found at www.reslife.cmich.edu. The cost of the room and unlimited meal plan for the academic year 2007-2008 ranged from $7,236 to $8,322.

Apartments. Various contracts are available depending on the individual unit and number of bedrooms. The approximate monthly rate for students in 2007-2008 ranged from $591 to $674.

Housing Application and Penalty Fees

- Meal Plan Changes (Assessed to cover costs): $15.00
- Housing Contract Breakage - Contract breakage fees for cancellation of Housing Agreement will be assessed according to the Housing section of this Bulletin. (See Refunds section.)
- Lost Key Fee and Lock Change Fee
- University Apartments: $33.00
- Residence Halls: $40.00

Special Fees

Application Fees

A. Undergraduate
   $35.00 to be submitted with the application form.

B. Graduate
   - $35.00 for U.S. citizens and resident aliens to be submitted with the application form.
   - $45.00 for international students to be submitted with the application form.

C. Rematriculation
   $35 to be submitted with the application form.

Student Photo Identification Card

Students receive their photo identification card from the Campus ID Office in the Bovee University Center Room 205. The first card is issued to the student at no charge. There will be a fee assessed for a replacement ID card due to loss or damage. Banking Services using the ID card are also available. For additional information, contact the Campus ID Office at 989-774-3484 or by visit the website at www.cmucampusid.com.

Transfer of Campus ID Card

For your protection, the only person authorized to use your card is you. There is a $25 misuse fee if someone else is caught using your identification card.

Graduation Fee

A. Undergraduate - No application fee.

B. Graduate - Application for graduation fee is $35.00 (per degree).

Health Services Fees

University Health Services charges fees for the services provided. Payment is not required on the date of the visit. Charges may be placed on the student’s CMU account. Courtesy insurance billing is provided if the student presents proof of current coverage (insurance card or photocopy of it) and authorizes us to do so. University Health Services participates with a number of health insurance and prescription drug plans. Some fees are subject to change without notice. For current charges for specific services contact the Health Services Business Office, Foust 108, (989) 774-3059.

Library Fees

A. Overdue reserve material:
   1. Two-hour reserve materials: $1.00 first hour, 25 cents each successive hour.
   2. Other reserve materials: $1.00 first day, 50 cents each successive day.

B. All Other Overdue Books:
   $5.00 charge for each overdue item. Replacement cost of the purchase price of the item or $60.00 if the purchase price is not available plus $15.00 processing fee for lost items.

Special Course Fees

Many courses are approved for special course fees that must be paid in addition to tuition to cover costs of materials and services supplied to students. All courses with special fees will have the amount identified next to the course in the special fees column of each Class Schedule.
Other Course Fees

Off-Campus Classes
For information regarding fees for Off-Campus Programs and Educational and Professional Development, please contact the Off-Campus Programs Office at 989-774-3865.

Field Trips
Expenses involving field trips in a class may be prorated among members of the class.

Excess Materials
Students using materials in excess of those furnished by the departments of Chemistry, Human Environmental Studies, Engineering Technology, and Journalism will be charged for the cost of those materials.

Flight Training
Students enrolled in flight training courses will be charged for aircraft and instructor time at rates established by the flight school.

Competency Test Fee - General Education Program
A schedule showing the fee for each test which may be used to meet the competency requirements for the General Education Program is maintained in the Center for Learning Assessment Services at [http://www.cmich.edu/cbpt/default.htm](http://www.cmich.edu/cbpt/default.htm).

Credit by Examination Fee
The credit by examination fee is calculated according to the tuition rates in effect, based on resident/non-resident and undergraduate/graduate status of the student.

Study Abroad Administrative Fee
CMU students enrolling in a study or internship program abroad pay a $150 administrative fee to the Office of International Education. Students not currently enrolled at CMU pay a $300 administrative fee.

Vehicle Registration Fee
<table>
<thead>
<tr>
<th></th>
<th>Commuter</th>
<th>Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee</td>
<td>175.00/yr</td>
<td>150.00/yr</td>
</tr>
</tbody>
</table>

For Spring Semester, the charge is one-half the annual fee. For Summer Semester, the charge is one-fifth the annual fee.

Bicycle Registration
Bicycles must be registered permanently at the University Police Department. There is no charge for this service. (Fees subject to change. See [www.police.cmich.edu](http://www.police.cmich.edu))

Transcript Fees
Official transcripts are free, however there is a $10.00 charge for priority (same day) service. Transcripts are available upon written, hand-signed request of the student. Official transcripts of students with financial obligations to the university are not released until the obligation is paid.

Diploma Replacement Charge
$20.00

Returned Check Fee
A $25.00 handling fee is charged for checks returned by the bank (i.e., insufficient funds, account closed) which were presented to the university. An additional $25.00 will be assessed to all tuition checks returned from the bank. Students may be involuntarily withdrawn from all classes if returned checks intended to cover tuition and/or past-due balances are not repaid as directed in the Notice of Returned Check letter. This letter will be mailed from the university upon receipt of a returned check.

Financial Debt and Involuntary Withdrawal
Any amount owed to the university should be paid when due. A late charge of $30.00 per month will be assessed to past due accounts if the balance is $60.00 or larger. The maximum late charges assessed to an account is $180.00 or up to one half of the balance remaining outstanding. Any student who withdraws from the university or who has a financial debt is responsible for paying any outstanding financial obligations, and will have a hold placed on official transcripts and future registrations. Graduating students with financial obligations may also have a hold placed on their diplomas.

Students living in residence halls with a past due balance may have their meals and phone privileges discontinued until their accounts are brought to a current status. Any delinquencies from the Family Housing Apartments may result in the initiation of eviction procedures.

Refunds
All potential refunds are applied to university obligations before a refund is made to an individual. Refunds of less than $2.00 will not be made unless the student requests it from the Receivable Accounting Office, but will be carried forward to offset future university charges. Where applicable, all refunds will be mailed directly to the student.

Refunds for Student-Initiated Complete Withdrawals
Students withdrawing from the university must complete a withdrawal form in the Registrar’s Office, 212 Warriner Hall, to initiate the refund process. Further information regarding the complete withdrawal policy appears in the section on Academic Policies and Procedures. Students who have credit balances in excess of $2.00 on their student accounts after all university obligations have been met will receive a refund unless the student received financial aid.

Refunds for Students Receiving Financial Aid
Financial aid received by students awarded financial assistance through the Central Michigan University Office of Scholarships and Financial Aid is applied to student accounts to pay for university and other university charges due because a student withdraws from the university are used to repay the financial aid sources in full prior to refunding the student. Refunds for the unused portion of tuition, special course fees, housing and other university charges due because a student withdraws from the university are used to repay the financial aid sources in full prior to refunding the student. Withdrawing students who have received financial aid cash payments to cover non institutional, educational costs may be required to repay financial aid sources.

Refunds for students who receive Title IV financial aid are allocated to the financial aid source in the following order:
- to outstanding balances on Federal Direct Loans (Unsubsidized and Subsidized)
- to outstanding balances on Federal Perkins Loans
- to outstanding balance on Federal Plus Loans
- to Federal Pell Grant awards
- to Federal SEOG awards
- to Academic Competitive Grants
- to National Smart Grants
- to other Title IV student assistance
- To other federal, state, private or institutional student assistance to the student.

(continued)
Financial Information

Drop and Add Refunds
The Receivable Accounting Office will automatically process refunds/charges as a result of a change in class registration. Any refund due will be applied to any outstanding university obligations before a refund check is issued. No refunds are made for class withdrawals after the Phase II registration period (except for some special fees) unless the student is completely withdrawing from the university.

New Student Orientation Fee Refunds
The $175.00 New Student Orientation Fee is refundable by submitting a written request to the Admissions Office for students who cancel their admission prior to the established deadline dates as indicated in admission correspondence for the specific semester or session, and who have not attended an orientation session.

Tuition Refunds
A percentage of the tuition listed below plus the corresponding percentage of all fees excluding the enrollment fee will be refunded to a student who withdraws from the university.

<table>
<thead>
<tr>
<th>Percentage of Tuition and Fee Refund for Fall/Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Session</td>
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<tr>
<td>-------------------</td>
</tr>
<tr>
<td>5 WK</td>
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<td>8 WK</td>
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<td>10 WK</td>
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<tr>
<td>16 WK</td>
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Off-Campus Programs Refunds
Application fees, off-campus enrollment fees, Prior Learning Assessment credit fees, and Graduation fees are not refundable.

Tuition refunds requested prior to the beginning of the course shall be made in full. Tuition refunds requested after the beginning of the first class session and before the second class session for all courses dropped will receive a full refund.

For more information and a schedule of refund percentages, consult the most current Off-Campus Bulletin (http://www.cel.cmich.edu/cebulletin/)

There is a drop course fee of $50. Refunds requested after the midpoint of the course shall not be made except as follows: Full refunds shall be made when requested any time prior to the last class session, if the reason for withdrawal is that the student is being set out of the area by his or her employer and if a copy of TDY (Temporary Duty) orders or a letter from the employer confirming the assignment accompanies the request. In unusual circumstances, such as illness or death in the family, full refunds may also be made at the discretion of the administrator at the student’s learning center. A major consideration in such cases will be the timeliness of the request.

Students withdrawing from an online course will be expected to submit a request for withdrawal in writing via e-mail (help-ddl@cmich.edu), fax (989-774-1822), or online (www.cel.cmich.edu/ecampus/courses/withdraw.asp).

Vehicle Registration Refunds
Students not returning for the Spring Semester will be entitled to a fifty percent motor vehicle registration refund. Applications must be made prior to the end of the first week of classes of the second semester. Students withdrawing within two weeks of the first day of classes are entitled to a full refund of the motor vehicle registration fee for that semester. Applications for refunds should be made to the University Police and accompanied by identifiable portions of the parking decals.

Cancellation of Housing Agreement
The residence hall agreement is for the entire academic year, or remainder of the year, provided the student is enrolled at the university. The residency and financial conditions of the agreement shall not be terminated to move to a private home, fraternity or sorority house, or other housing or to commute during the period covered by the agreement. Students who break the residence hall agreement without approval from Residence Life officials will owe full room and board charges for the entire academic year.

Students who are approved for release from the residence hall agreement for any reason are subject to the following schedule of cancellation charges:

**New Applicants Only:**
- Cancellation of this agreement after May 1 but by August 1 will result in a $300 cancellation fee.
- Cancellation of this agreement after August 1, but prior to the first day the halls open in the fall shall result in a $500 cancellation fee.

**Returning Students Only (Prior to the halls opening):**
- Students signing an agreement by May 20 (December 1 for spring semester) have a seven-day cancellation period without penalty.
- Students cancelling after the seven-day cancellation period and by August 1 (December 1 for spring semester) will be charged a $300 cancellation fee.
- Students cancelling after August 1 (December 1 for spring semester) but before the first day the halls open will be charged a $500 cancellation fee.

**New Applicants and Returning Students (during the Academic Year):**
- Cancellation of this agreement from the first day halls open in the fall but prior to November 1 shall result in a $900 cancellation fee.
- Cancellation of this agreement after November 1, but prior to the end of the fall semester shall result in a $600 cancellation fee.
- Cancellation of this agreement from the end of the fall semester but before April 1 shall result in a $300 cancellation fee.
- Cancellation of this agreement after April 1 shall result in a $100 cancellation fee.

**All Cancellation Requests must be in writing.**

Other charges and damages may apply under the provision of the agreement such as damage to room. If a student is **not approved** for release from their residence hall agreement and they choose to move anyway, they are still financially responsible for the **entire contract**.

**Apartments.** Residents are charged for actual days up to the termination of their Housing Agreement. Family housing residents may terminate by giving the University Apartments Office 45 days written advance notice. Single student resident contracts are for the entire academic year.
Scholarships and Financial Aid

General Requirements

To be eligible for CMU and federal undergraduate assistance you must:

1. Be a U.S. citizen or eligible non-citizen for federal, state, and most CMU programs.
2. Demonstrate financial need (for need-based programs) as determined by the CMU OSFA and by federal regulations.
3. Be enrolled full time (12 credits per semester except for Federal Pell Grants and/or Federal Direct Loans) in a degree program.

NOTE: In order to graduate within four years on a degree program which requires a minimum of 124 hours of credit, a student must average at least 31 hours of credit each year. Several degrees may require a minimum greater than 124 hours.

4. Federal aid recipients may not owe a refund from any federal grant or loan or be in default on any federal loan.
5. Students must be enrolled on campus to receive financial aid, except under special circumstances. Students whose program of study requires a course(s) not available at CMU may apply for a Consortium Agreement to receive financial aid while enrolled at another institution.
6. Students can only receive a Federal Pell Grant at one institution. Students may receive a Federal Stafford Direct Loan while enrolled at least half-time simultaneously at two institutions up to the annual maximum grade-level limit.
7. Guest students attending CMU are not eligible to receive financial assistance through CMU. Students should check with their home institution to determine eligibility for financial assistance.

Financial Aid Eligibility:

Eligibility:

General Requirements

To be eligible for CMU and federal undergraduate assistance you must:

1. Be a U.S. citizen or eligible non-citizen for federal, state, and most CMU programs.
2. Demonstrate financial need (for need-based programs) as determined by the CMU OSFA and by federal regulations.
3. Be enrolled full time (12 credits per semester except for Federal Pell Grants and/or Federal Direct Loans) in a degree program.

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7. Guest students attending CMU are not eligible to receive financial assistance through CMU. Students should check with their home institution to determine eligibility for financial assistance.

Satisfactory progress toward your degree:

CMU students are required to make progress toward their degree to be eligible for federal and most state and university aid sources. Progress is measured in three ways:

1. Length of time to complete your degree. Students must complete all degree requirements within 150% of the minimum number of credit hours required to complete their program of study.
2. Required GPA level. Students must maintain the required cumulative GPA level as defined by their program of study to maintain matriculation at CMU.
3. Required percentage of attempted credits completed. All students must complete 75% of all CMU credits attempted each academic year.

Satisfactory Progress

Federal regulations (HEA Sec. 484(c)) require that Central Michigan University monitor the satisfactory progress of all students regardless if they have received financial aid in previous semesters. These financial aid requirements are separate from students’ academic requirements. To maintain eligibility for federal student aid, as well as most state and institutional student aid programs, there are three distinct criteria that must be monitored and met.

1. Qualitative standard: Students must maintain GPA requirements as set by the Registrar and the department or college of their major. Undergraduate requirements are found at http://advising.cmich.edu/aap/academic_probation.htm. Graduate academic requirements vary depending on your program.
2. Quantitative standard: All students must complete 75 percent of the courses they attempt in an academic year. CMU’s academic year begins with the fall semester and concludes with the summer semester. Attempted hours are based on the number of credits for which the student is registered at the conclusion of the Registrar’s posted “Deadline for Dropping a Class with a Full Cancellation of Tuition.”
3. Maximum time frame standard: The number of attempted credits in which a student is expected to finish a program cannot exceed 150 percent of the published length of the program. Total credit hour limits apply whether or not the student has actually received financial aid for the entire time at CMU. Transfer credits from previous schools count toward credit hour limits.

Undergraduate students cannot receive financial aid after completing 186 credit hours. The 186-credit-hour limit for completion of a baccalaureate degree is intended to be long enough to allow for changes in a major, loss of credit due to transfer, withdrawn coursework, minors, double majors, etc.; therefore, no extensions of the maximum time frame will be granted for the above mentioned reasons.

Students in graduate programs may not receive financial aid if they have exceeded the published time limits as outlined in the CMU Graduate Bulletin for master, doctoral, or professional programs as found in the section on Special Admission Considerations.
Graduate students working on second baccalaureate degree or post-baccalaureate students working on teacher certification

Students pursuing a second undergraduate degree or post-baccalaureate students working on teacher certification are limited to 90 credit hours of work between the receipt of the first degree and the completion of the second. Students may not receive financial aid beyond 6 semesters (or the part-time equivalent of 6 semesters) of enrollment in the second undergraduate degree program or teacher certification program.

Satisfactory Progress review is performed annually

Satisfactory Progress is measured at the end of the spring semester (May) to determine a student’s financial aid eligibility for the following academic year. If a student is not making satisfactory progress at the close of the spring semester and subsequently earns additional CMU hours during the summer of that same academic year, the additional earned hours may be considered in a re-evaluation for aid eligibility. The request for a re-evaluation must be initiated by the student and submitted in writing to the OSFA.

As a courtesy, the OSFA will attempt to provide students with specific notification regarding their Satisfactory Progress status. If for any reason the OSFA fails to provide an intended notification, this does not relieve the student from the obligation of continuing to maintain satisfactory progress or from any other requirements of the financial aid program.

Consequences of unsatisfactory progress

Students who fail to complete 75 percent of their attempted courses in an academic year will be placed in a warning status. Failure to bring their completion rate to 75 percent in the next academic year of enrollment will result in financial aid suspension beginning with the next academic year. A student will remain on financial aid suspension and be denied federal and most state and institutional aid until he/she completes 75 percent of attempted courses within an academic year at CMU. Only credit hours completed are counted as credits earned. Grades of NC (no credit), I (Incomplete), W (withdrawal), X (audit), and Z (deferred) are not counted as earned credit. For example, a student who attended CMU in the fall and spring semesters and attempts 12 credits each semester (24 total) but withdraws from a 3-credit fall semester course and a 4-credit spring semester course (total of 7 credits), will have completed 17 of 24 credits for a completion rate of 71 percent. This student will be warned. A second year of less than 75 percent completion results in the student being denied further aid until he or she completes 75 percent of attempted courses within an academic year.

Students who reach their time limit without completing their degree will be denied further federal and most state and institutional financial aid as a student at that level. As students near their credit limits they will be placed in a warning status. For example, if an undergraduate you reach 150 attempted credits you will be placed in a warning status. Once you reach the 186-earned-credit limit, you will be denied further aid until the degree is conferred. You then would regain eligibility for a second undergraduate or a graduate degree. If you are attempting a master’s degree and reach the eligibility limit, you would be denied further aid until the master’s degree is conferred, at which time you would regain eligibility for a second master’s, doctoral, or professional degree.

Appeal process

Students who have faced extraordinary circumstances may appeal a financial aid suspension but, students are cautioned that appeals are not routinely approved. All appeals must be typed and must include third party supporting documentation on professional letterhead. For example, if your mitigating circumstance is that you were severely ill during the given time period.

All appeals should be submitted to the Office of Scholarships and Financial Aid. In most cases a decision will be made within 15 business days of receiving an appeal letter and the appropriate documentation. Students are notified of appeal decisions in writing or through their CMU e-mail account.

Continuing at CMU after aid is denied

Students denied financial aid generally may continue attending Central Michigan University using private aid sources such as alternative student loans (http://financialaid.cmich.edu/loans.shtml#altl), or by funding their education themselves. Please note that on the linked Alternative loan list, some loans listed are NOT available to students while on Financial Aid Suspension.

Applying For Financial Aid

To apply for financial assistance at Central Michigan University, prospective students must complete the Free Application for Federal Student Aid (FAFSA). The need analysis form must be received by the Federal Processor by March 1. In order to meet the university’s priority deadline. Applications are available online at www.fafsa.ed.gov, or from high school counselors, financial aid offices at other institutions of higher learning, and the CMU OSFA. Online applications are strongly encouraged.

All CMU awards are made for a period of one academic year only. Reapplication must be made for each year.

Financial aid awards for the prospective student are not offered before the student has attained regular admission status through the Admissions Office.

Because need-based financial aid is limited, it is awarded to the earliest applicants who demonstrate the greatest financial need until funds are exhausted.

Verification

Students may be selected for verification through an institutional edit process and/or through a random selection for the U.S. Department of Education’s Quality Assurance Program. The OSFA is required to collect documents to verify the information on the FAFSA. These documents include, but are not limited to, federal tax returns and documentation of assets and family size.

A timely response to a documentation request is important. Your financial aid application cannot be processed without the requested documentation.

Fraud

Falsification of income information submitted for the purpose of receiving financial assistance will result in cancellation of all future assistance and repayment of all prior assistance received falsely. If federal and/or state funds are involved, notification of the false information will be provided to the proper agencies (U.S. Department of Education and/or Michigan Department of Treasury) for their further disposition.

Determination of Financial Need

Need is determined by subtracting a student’s total family contribution, as determined by the federal needs analysis, from the estimated cost of attendance.

Independent Status

The expected family contribution for education expenses for students who meet the criteria for financial independence is evaluated exclusive of parental support. To be independent for 2007-2008, students must answer yes to at least one of the following questions:

Students who have faced extraordinary circumstances may appeal a financial aid suspension but, students are cautioned that appeals are not routinely approved. All appeals must be typed and must include third party supporting documentation on professional letterhead. For example, if your mitigating circumstance is that you were severely ill during the given time period.
1. Was the student born before January 1, 1985?
2. At the beginning of the 2007-08 school year, will the student be working on a master’s or doctorate program (such as an M.A., M.B.A., M.D., J.D., Ph.D., Ed.D., or graduate certificate, etc.)?
3. As of the date the FAFSA is completed, is the student married?
4. Does the student have children who receive more than half of their support from the student?
5. Does the student have dependents (other than his/her child or spouse) who live with and receive more than half of their support from the student, from 7/1/08 to 6/30/09?
6. Are (a) the student’s parents both deceased, or (b) is the student (or was until age 18) a ward/dependent of the court?
7. Is the student a veteran of the U.S. armed forces?
8. Is the student currently serving on active duty in the U.S. Armed Forces for purposes other than training?

Students may be required to document their status with the OSFA. Students with unusual or extenuating circumstances relating to independent status should contact the OSFA.

Parental Contribution
For dependent students, the OSFA uses the Federal needs analysis to determine the contribution from each family, taking into account the family’s income and assets, taxes paid, the household size, and the number of college students in the home.

Student Contribution
The federal needs analysis is utilized to determine the student’s contribution and the student’s spousal contribution, if applicable. Students and their spouses are expected to assist in meeting educational costs. The expected contribution is calculated from previous year earnings and untaxed income, and a percentage of personal savings and assets.

The Student’s Financial Aid Package
A financial aid award is packaged for each student applicant based on the student’s demonstrated financial need, date of application, availability of funding and eligibility. If applicable, a combination of gift (scholarships and grant) and self-help (job and loan) is offered to the student.

Talent scholarships or grants-in-aid, i.e., Athletic, Music, Communication and Dramatic Arts, or Broadcast and Cinematic Arts are awarded by the respective departments for which the awards are named. Academic Honors and Outstanding High School Students Scholarships are awarded at the time of admission, based on admission criteria, not financial need. If an award recipient is also receiving university need-based financial assistance or aid from the Michigan Competitive Scholarship Program, or from an external agency, it may be necessary to include the talent scholarship or grant-in-aid in the financial aid package. This could result in a reduction in the talent scholarship or grant-in-aid.

The student is responsible for following the procedures included in the award notice to secure the aid offered.

Changes in the Award
The OSFA anticipates that students will receive the aid package offered in their award statement. It may, however, be necessary for the university to increase or decrease the award if changes occur in the student’s enrollment status, family financial status, or the student’s own financial resources or expenses.

Changes in enrollment status include changing undergraduate majors, taking fewer than 12 credit hours per semester, registering for study away from the university, or withdrawal before the end of the semester. Reductions in credit hours below 12 credits in a semester may result in a cancellation of CMU assistance for that semester. Students should consult a financial aid advisor before making a change in enrollment status.

Changes in family financial strength include significant discrepancies between the resources described in the FAFSA and those reported in the federal income tax return or unanticipated family financial reverses lasting longer than three months. Students should consult a financial aid advisor if there is an unusual circumstance that impacts the family’s financial strength.

Changes in student resources include receipt of educational benefits such as veteran’s benefits, and receipt of awards in amounts that differ from the estimates on the award statement, or that were not included in the statement. Students must report receipt of additional resources not considered in the original aid package. Students who receive scholarships from private donors may receive a reduction in some awards to ensure that the total aid resources do not exceed a student’s financial need.

Award Revision
CMU reserves the right to revise a student’s award package if government regulations, university policy, or sources of funding change prior to or during the academic year. This also applies if overpayments or overcommitments occur, or if acceptance of the award occurs after the deadline.

The award may be reduced or withdrawn after a student has received a direct payment of the financial aid. The reduction in aid will be charged to the student’s account and the student will be required to pay that amount to CMU.

Award Disbursement
All financial aid is typically divided in half and credited directly to the student account. When possible, awards are applied to the first bill in each semester; however, late awards or award revisions will be applied throughout each semester. Financial aid funds will be applied against the student’s tuition, university housing cost for the semester, and any other charges on the student’s account at the time of disbursement. NOTE: First-time borrowers of the federal direct student loan must complete an entrance interview and a Master Promissory Note prior to disbursement of loan funds.

If there are more credits than charges, a refund check will be issued for the balance. It is the student’s responsibility to verify the accuracy of billing charges, financial aid credits, and refund checks.

Refund checks are usually available to on-time filers by the first day of classes. Late filers should plan to have sufficient funds for meeting expenses until refund checks are available.

Note: Tax Status of Financial Aid
The Tax Reform Act of 1986 amended the Internal Revenue Code section pertaining to the taxability of scholarship and fellowship grants. Effective January 1, 1987, only the amount of a scholarship or fellowship grant which is used for qualified tuition and related expenses (i.e., tuition, fees, books, supplies, and equipment) is excluded from gross income. Any amount of a scholarship or fellowship grant which is used for non-course related expenses (such as room and board) is taxable and must be included in the student’s gross income. Students should keep accurate records of all tuition paid and related expenses, and financial aid received.
Statement of Student Financial Aid

Rights and Responsibilities
1. Students have the right to be informed of and to apply for all financial aid programs for which they are eligible and the responsibility to apply by program deadlines and to acquaint themselves with the application procedure.
2. Students have the right to know how financial need and award packages are determined and to request a review of the financial aid package should circumstances change to negatively affect the family’s ability to meet costs of attendance, and the responsibility to notify the university should new resources become available to the student which were not originally considered.
3. Students who borrow have a right to full disclosure of the terms and provisions of loan programs, including typical repayment schedules and the responsibility to attend exit interviews before leaving the university. They must repay loans on a timely basis and keep the university informed of their current address.
4. Students have the right to be informed of financial aid policies and have the responsibility to be aware of and comply with all published financial aid policies and to comply with these policies.
5. Students have the responsibility to submit accurate information on all university documents relating to the financial aid application process.

Sources of Aid
The student’s financial aid package might include a scholarship or grant from CMU or from a federal or state program. To be eligible for the following CMU scholarships and grants, students must be admitted to programs offered on the Mt. Pleasant campus. NOTE: Residency Requirement - Effective for students entering CMU in Fall 2003 or later): To renew awards, all recipients of CMU merit- and talent-based scholarships of a dollar value equal to or greater than $1,500 will be required to reside on campus during their sophomore year.

Board of Trustees Scholarships
The Centralis Scholarship Program
The CMU Board of Trustees created two levels of merit-based scholarships that are awarded to incoming freshmen who have demonstrated outstanding academic performance and curricular involvement. All new students entering CMU as freshmen with a minimum cumulative grade point average of 3.50 are invited to compete for a Centralis award. The Centralis competition involves an examination administered on the CMU campus. Participation is by invitation only. Invitations are sent to eligible applicants who have formally applied for admission to CMU and completed a Centralis Scholarship Application form.

The Martin H. Cholakian Centralis Scholarship
Martin H. Cholakian was a member of the Board of Trustees from 1989 until his death while attending a university event in Canada, January 29, 1994; and this scholarship was named in his memory. Mr. Cholakian was a dedicated and active supporter of CMU and took special interest in the university’s pioneering efforts to bring higher education to non-traditional students in distant locations.

John P. and Doris L. Crippo Endowed Centralis Scholarship
Through her estate, Doris L. Moulton Crippo established an endowed Centralis Scholarship. Doris and John Crippo were great believers in higher education; they were very interested in and had excellent rapport with students, faculty, staff and alumni.

Rollie Denison/Development Board Centralis Scholarship
Established in 1999 from funds donated by current and former members of the Central Michigan University Development Board of Directors.

Fabiano Family Centralis Scholarship
The Fabiano family of Mt. Pleasant, MI established the first Centralis Scholarship in 1989 to continue the family’s long-standing commitment to education and community well-being. Eleven members of the Fabiano family attended or graduated from CMU between 1920 and 1989. The Fabiano family has maintained strong interest in academic excellence and involvement in programs that result in university growth and prosperity.

The Bernard J. Firestone Centralis Scholarship
Established in 1989 by the Board of Trustees in memory of Bernard J. Firestone, member of the Board of Trustees from April 28, 1989, until his tragic death September 6, 1989. Mr. Firestone’s life was devoted to the welfare of others through education and the labor movement as means of improving the human condition.

R.L. Kesseler Family Endowed Centralis/Honors Program Scholarship I

R.L. Kesseler Family Endowed Centralis/Honors Program Scholarship II

R.L. Kesseler Family Endowed Centralis/Honors Program Scholarship III

R.L. Kesseler Family Endowed Centralis/Honors Program Scholarship IV

The Roger L. Kesseler family of Midland, Michigan, established their fourth of four Centralis scholarships in 2004. Mr. Kesseler is a 1958 cum laude CMU graduate who retired after having served for 15 years as vice president and controller of The Dow Chemical Company. He is currently a member and past chair of the CMU Board of Trustees and the CMU Development Board of Directors.

Fred R. McNabb Centralis Scholarship
Converted in 1996 from a loan fund established in 1976 through the estate of Fred R. McNabb. Spendable investment income will be awarded to CMU Centralis Scholars.

Robert and Lura Myers Centralis Scholarship

Milton Peterson Endowed Centralis Scholarship
Mr. Peterson of Corning, New York established the first endowed Centralis Scholarship to recognize the university’s dedication to academic excellence. Mr. Peterson is a patent attorney for Corning Glass who wants to repay CMU for his successes due to the education and opportunities provided by CMU.

Leonard E. Plachta Centralis Scholarships
In recognition of his years of service as president, the Board of Trustees established the Leonard E. Plachta Centralis Scholarships; one scholarship will be established each year until four are established.

Robert Benjamin Shaver Centralis Scholarship
Converted in 1996 from a loan fund established through the estate of Robert Benjamin Shaver, lifelong resident of Gratiot County. Spendable investment income will be awarded to CMU Centralis Scholars.
Arnold J. and Margaret L. Sowmick Centralis Scholarship
Established in 1990 by the Board of Trustees in honor of Arnold J. and Margaret L. Sowmick, respected leaders of the Saginaw Chippewa Tribe, who died as a result of a car accident July 29, 1990. Arnold was chief of the Saginaw Chippewa Tribe from 1982 to 1990 during which time his foresight and leadership were instrumental in establishing progressive programs especially in the areas of education and health. Margaret and Arnold, in their words and deeds, were friends of CMU and were instrumental in forming positive relationships which benefited their tribe and the university.

Augusta McIntosh Tobin Centralis Scholarship
Converted in 1996 from a loan fund established in 1985 through the estate of Augusta McIntosh Tobin, Class of 1925, who contributed 40 years of her teaching career to the Dearborn, MI school system.

Ronald A. Zuverink Memorial Centralis Scholarship
Established in 2001 by the estate of Ronald A. Zuverink, former private business owner in Chicago, Illinois. Proceeds from the endowment will be used to support Centralis scholarships.

Centralis Scholar Award
Twenty Centralis Scholar Awards are granted annually. This scholarship is of a monetary value equivalent to eight semesters of undergraduate tuition (up to 36 credit hours per academic year, including summer sessions), fees, room and board, and includes a stipend for books and supplies. Students who receive this award are admitted to the Honors Program and must agree to complete the Centralis Scholars Protocol which outlines required Honors coursework, foreign language skill, computer literacy, community service, and a senior project. Centralis Scholar Awards are named in recognition of significant contributions individuals and organizations have made to CMU.

Centralis Gold Award
Twenty Centralis Gold Awards are granted annually. This scholarship is of a monetary value equivalent to eight semesters of undergraduate tuition (up to 36 credit hours per academic year, including summer sessions). Students who receive this award are admitted to the Honors Program and must agree to complete the Centralis Gold Protocol which outlines required Honors coursework, foreign language or computer literacy, advanced seminar work, community service, and a senior project.

The Centralis Scholar and Gold Awards are made for one year and can be renewed automatically up to three additional consecutive years if a 3.25 cumulative grade point average is maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years. Part-time attendance at or withdrawal from CMU in any semester will cancel the scholarship for the remainder of CMU attendance, except when mitigating circumstances exist.

CMU Scholarship Policy
1. Recipients of CMU merit and talent-based scholarships of a dollar value equal to or greater than $1500 are required to reside on campus during their freshman and sophomore years unless they qualify as commuting students or for another exception to the Campus Residency Policy.
2. Students may receive two renewable merit scholarships. Students who are selected for more than two renewable scholarships may choose the awards of highest value.
3. CMU will limit institutional funds (i.e., need-based grants, merit scholarships, employee tuition waivers, Indian Tuition Grant Waiver, etc.) to the annual cost of attendance.

Non-CMU Scholarship disbursement policy:
1. Estimated scholarships, i.e., Michigan Competitive, Michigan Promise and outside agency, will not reduce the amount of tuition payable by posted deadlines.
2. Donors may specify the semester(s) in which the scholarship is paid.
3. If a student wants the scholarship distributed in a way that differs from what the donor requests, the student will be asked to get an authorization letter from the donor.
4. If the donor letter does not specify a distribution schedule, CMU will disburse scholarships of less than $500 all in the fall semester. Scholarships $500 or more will be split with half in the fall and half in the spring.
5. If the scholarship has been split and the donor has not given instructions, the student may request the entire award be moved to the fall semester. However, the student is then cautioned that he or she may be short of funds for the spring semester.

Leader Advancement Scholarship
In 1997 the Leadership Institute was established as a new initiative of CMU to provide a foundation of skills necessary for undergraduate students to pursue positions of leadership in business, government, education, and community agencies. As part of the Institute, the Leader Advancement Scholarship (LAS) provides $2,000 per academic year to up to 40 incoming freshmen who have distinguished themselves through a record of leadership and involvement during their high school years. Competitors must maintain a minimum cumulative high school GPA of 3.0. Recipients are selected by a committee through analysis of the LAS Application, a portfolio-like record of activities that is completed by the student, and an on-campus interview. Scholarship recipients must maintain full-time status and a cumulative GPA of 2.75 while at CMU and show significant progress on the LAS protocol. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years.

Achievement Scholarships
Outstanding High School Students
The valedictorian and salutatorian of each Michigan high school will be eligible for $3,000 per academic year. These scholarships will be renewed automatically three additional consecutive years if a 3.25 cumulative grade point average is maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years. Students who transfer from other postsecondary schools are ineligible. Part-time attendance at or withdrawal from CMU in any semester will cancel the scholarship for the remainder of CMU attendance. Either of the Centralis Scholarships replaces the Outstanding High School Scholarship.

Academic Honors Scholarship
A scholarship for $2,000 per academic year will be awarded to students with a grade point average of 3.5 or better and an ACT score of 20 or better entering directly from Michigan high schools or transfer students with a grade point average of 3.5 and an Associate Degree from a Michigan community college. The scholarship may be renewed automatically up to three additional academic years for freshmen or one additional year for transfer students if full-time status and a 3.25 cumulative grade point average is maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years. Part-time attendance or withdrawal from CMU in any semester will result in cancellation of the scholarship for the remainder of CMU attendance. The Outstanding High School Student Scholarship or one of the Centralis Scholarships replaces the Academic Honors Scholarship.

(continued)
If a student will be completing degree requirements in less terms than is covered by one’s academic scholarship (e.g., seven terms rather than eight), the credit allocated for the final term of the award may be applied to the student’s account if the student has an outstanding balance in his/her final semester. Unused scholarship funds will not be refunded to the student. It is the student’s responsibility to request this credit during the term immediately prior to one’s expected graduation and to present documentation (i.e., a graduation audit and class schedule) to the Office of Scholarship and Financial Aid indicating one’s expected graduation date.

Community College Transfer Recognition Award
All new transfer students entering CMU directly from a Michigan community college with a minimum, cumulative grade point average of 3.30 or higher and with a minimum of 30 transferable credits are eligible for this $1,000 award. This scholarship can be renewed for one additional year provided the student maintains full-time continuous enrollment at CMU with a 3.25 (or higher) cumulative GPA. The Academic Honors Scholarship replaces this award.

Lloyd M. Cofer Scholarship
Established in 1980 in memory of Dr. Lloyd M. Cofer, charter member of the CMU Board of Trustees, for ten scholarships equal to $4,125 per year to deserving undergraduate students who are graduates of a Detroit public high school. Scholarships are renewable for three additional years for recipients who maintain a satisfactory progress record, full-time continuous enrollment, and a 2.50 (or higher) cumulative GPA. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years.

Students who receive this award must agree to live in the residential college their freshman year and complete the Cofer Scholars Protocol, which outlines the requirements for the scholarship program.

Students are not eligible to receive the Cofer Scholarship and either the Wade McCree or Detroit Compact Award. Students may select the award of highest value.

Multicultural Advancement Scholarship
These awards recognize and support students who, through past activities or educational aspirations, indicate an interest in the advancement of minorities in American society. These awards are equal to $4,125 per year and are renewable for students who maintain full-time enrollment and a 2.50 cumulative grade point average. Up to ten Awards of Distinction are also awarded each year. The value of this scholarship is $10,500 per academic year to be used toward the cost of tuition, fees, room and board, and books and supplies. The scholarship is renewable for three additional, consecutive years if a 3.25 (or higher) cumulative GPA and full-time continuous enrollment are maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years.

Students who receive this award must agree to live in the residential college their freshman year and complete the Multicultural Advancement Scholars Protocol, which outlines the requirements for the scholarship program.

Students are not eligible to receive the Multicultural Advancement Award and either the Wade McCree or Detroit Compact Award. Students may select the award of highest value.

Talent Scholarships
Athletic Scholarships. Scholarships are awarded to outstanding athletes in men’s and women’s sports. Further information may be obtained by contacting the CMU Director of Athletics.

Communication and Dramatic Arts Talent Scholarships. Talent scholarships are awarded to full-time students participating in cocurricular activities of the Department of Communication and Dramatic Arts. Contact the department directly for further information.

Broadcast and Cinematic Arts Talent Scholarships. Talent scholarships are awarded to full-time students participating in cocurricular activities of the Department of Broadcast and Cinematic Arts. Contact the department directly for further information.

Music Talent Scholarships. Talent scholarships are awarded to full-time students participating in cocurricular activities of the School of Music. Contact the School directly for further information.

Endowed and Contributed Scholarships
A number of scholarship awards are available annually to CMU students, established through endowments or by annual contributions from individuals, businesses, or civic organizations. Some are based on financial need. Others are based on other non-need-related criteria. Further information may be obtained by consulting the listings in this section, the Office of Scholarships and Financial Aid and specific departments.

CMU Grants
These grants are awarded on the basis of demonstrated need, with a minimum grant of $50 and a maximum grant not to exceed the gift portion of the student’s financial aid package.

CMU President’s Award
The President’s Award is granted to non-Michigan resident high school seniors with both a cumulative GPA of at least 3.3 and an ACT composite score of at least 22 and to non-Michigan resident community college graduates with a cumulative GPA of at least 3.5. The value of the award is equal to the difference between in-state and out-of-state tuition for the academic year. The award is renewable for new freshmen for three additional consecutive years and for new transfer students for one additional consecutive year if a 3.25 cumulative GPA, non-Michigan residency and full-time continuous enrollment are maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years. Participation in the Legacy Program replaces this award.

The President’s Award for Undergraduate International Students
This award honors non-United States resident high school seniors who will graduate with at least a 3.3 (on a United States 4.0 scale) grade point average, have a 22 or higher ACT composite score (or SAT I of 1,000), a TOEFL score of 550 (213 for computer-based testing), for applicants whose native language is not English, and enroll directly as freshmen at CMU as on-campus students. Students enrolled in CMU’s International Bridge Program who have passed all required English Language Institute courses are eligible for this award and are not required to meet the TOEFL score requirement listed above, but are required to meet all other requirements listed above. Recipients will be granted an award equal to the difference between in-state and out-of-state tuition for four years. Potential four-year value of this award is greater than $38,000. To remain eligible for this award, students must be non-United States residents, complete at least 12 credits each semester (for a total of eight semesters of continual enrollment at CMU), and maintain a cumulative CMU grade point average of at least 3.25. In order to renew CMU merit scholarships, students must reside in CMU on-campus residence halls in both their freshman and sophomore years. Part-time attendance, failure to maintain the required cumulative GPA, withdrawal from CMU in any regular semester other than summer school, or failure to reside in the residence halls for the freshman and sophomore years will cancel scholarships for the rest of the academic program.
Presidential Awards for International Students
In an effort to enhance the recruitment of international students to campus, CMU has allocated funds for merit-based awards to be given to new non-immigrant undergraduate degree-seeking students. The awards are designed for international undergraduate students (new students and transfer students). Scholarship funds will be applied directly toward payment of tuition. Funding shall not exceed cost of tuition for any given semester. Students who enroll in CMU’s International Bridge Program will be eligible for the scholarships upon satisfactory completion of the English Language Institute program. Students who are currently enrolled at CMU in a degree-seeking program may not apply for the award. Contact the Office of International Education, 106 Bovee University Center, 989-774-4308, for more information.

Global Scholar. Up to seven (7) renewable scholarships in the amount of $3,000 per year are available. Award recipients will receive $1,500 per semester for up to eight (8) semesters. Applicants must have a cumulative grade point average equivalent to 3.00/4.00 at the time of application. All other eligibility requirements must be met.

Continental Scholar. Up to twelve (12) renewable scholarships in the amount of $2,000 per year are available. Award recipients will receive $1,000 per semester for up to eight (8) semesters. Applicants must have a cumulative grade point average equivalent to 2.90/4.00 at the time of application. All other eligibility requirements must be met.

Michigan Promise Award
The Michigan Promise Award is a merit-based program to reward student achievement as measured by the Michigan Merit Examination. Qualifying students will receive notification from the State of Michigan, Office of Scholarships and Grants, that they have successfully met all requirements and will be notified of the value of the award. More information is available at the following web address: http://www.michigan.gov/promise

Michigan Competitive Scholarships
These scholarships offer an amount towards tuition and fees to Michigan residents of at least 12 months who have a qualifying ACT score and who show financial need as determined by the Free Application for Federal Student Aid (FAFSA). Students should file the FAFSA form by February 15th of each year to ensure they meet the application receipt deadline set by the State of Michigan. Recipients must be attending CMU at least half-time. Awards may be renewed annually for a maximum of ten semesters, as long as needed, a 2.0 cumulative grade point average and satisfactory progress are maintained.

More information is available from high school counselors and by calling the State of Michigan, Department of Treasury, Office of Scholarships and Grants at (888) 447-2687.

Michigan Adult Part-Time Grant
This grant is designed to provide grant assistance for needy undergraduate adults who enroll at CMU on a part-time basis (3-11 credit hours). Maximum grant eligibility per year is $600 for a maximum of two years of study. Students must qualify as self-supporting under current federal criteria, demonstrate need, be out of high school (other than GED) for at least 2 years, be a Michigan resident for at least 12 months, be a U.S. citizen or permanent resident, not be incarcerated, not enrolled in a theology or divinity program, not be in default on a Federal Loan and must be making satisfactory academic progress, as defined by CMU. To be considered for this grant, the student must file a FAFSA.

Michigan Educational Opportunity Grant
This grant is designed to provide need-based assistance to full-time undergraduate students up to $1,000 per year. Students must be Michigan residents for at least 12 months, be making satisfactory progress as defined by CMU, and may not be incarcerated in a corrections institution. To apply for this grant, students must file a FAFSA.

Federal Supplemental Educational Opportunity Grants (SEOG)
These are federal grants awarded by CMU to undergraduate students who are U.S. citizens or permanent residents demonstrating financial need. The amount of the grant is determined based on the federal needs analysis and available funding. Students must be making satisfactory progress to continue receiving the grant, and meet all other conditions outlined in the Financial Aid Eligibility section of this Bulletin.

Federal Pell Grants
Application Procedures. Students may apply for Federal Pell Grants by filing a FAFSA.

Methods of Selection of Recipients and Allocation of Awards. The Pell Grant Program is an entitlement program. The applicant must be enrolled as an undergraduate student in an approved postsecondary institution and must show financial need. Financial need is determined by a formula applied to all applicants.

Award Schedule. Currently awards range from $400 to $4,731. The amount of the award will be affected by costs of attendance and enrollment status at time of the Pell Grant disbursement.

Federal Academic Competitiveness Grants
Requirements: (1) U.S. citizen only (no eligible non-citizen); (2) Pell Grant recipient during same award year; (3) full-time enrollment for each pay period; (4) enrolled in a degree program; (5) one award per student academic year; (6) first-year students must have graduated from high school after 1/1/05; (7) second-year students must have graduated from high school after 1/1/06. First- and second-year students must have completed a rigorous secondary program of study approved by the U.S. Secretary of Education. Second-year students must have a 3.0 cumulative GPA.

Award Schedule: $750 for first-year students; $1300 for second-year students.

National SMART Grant
Requirements: (1) U.S. citizen only (no eligible non-citizen); (2) Pell Grant recipient during same award year; (3) full-time enrollment for each pay period; (4) enrolled in a degree program; (5) one award per student academic year; (6) 3rd academic year (49-72 credits) and 4th academic year (72-96 credits) of a four year degree program; (7) requires student to be in one of the following designated non-teaching majors as stipulated by the U.S. Secretary of Education: computer science, engineering, technology, life sciences, mathematics, physical sciences, designated critical foreign language; (8) 3.0 cumulative GPA for each pay period.

Award Schedule: $4000 per academic year for 3rd and 4th year students. Students may not exceed 96 credits to be considered a 4th year student.
**TEACH Grant Program**

Through the College Cost Reduction and Access Act of 2007, Congress created the Teacher Education Assistance for College and Higher Education (TEACH) Grant Program that provides grants of up to $4,000 per year to students who intend to teach in a public or private elementary or secondary school that serves low-income families.

**Effective Dates**

The first TEACH Grants will be awarded to eligible students for the 2008-2009 school year.

**Conditions**

In exchange for receiving a TEACH Grant, you must agree to serve as a full-time teacher in a high-need field in a public or private elementary or secondary school that serves low-income students (see below for more information on high-need fields and schools serving low-income students). As a recipient of a TEACH Grant, you must teach for at least four academic years within eight calendar years of completing the program of study for which you received a TEACH Grant. IMPORTANT: If you fail to complete this service obligation, all amounts of the TEACH Grants that you received will be converted to a Federal Direct Unsubsidized Stafford Loan. You must then repay this loan to the U.S. Department of Education. You will be charged interest from the date the grant(s) was disbursed.

**Student Eligibility Requirements**

To receive a TEACH Grant you must:

- Complete the Free Application for Federal Student Aid (FAFSA), although you do not have to demonstrate financial need.
- Be a U.S. Citizen or eligible non-citizen.
- Be enrolled as an undergraduate, post-baccalaureate, or graduate student in a postsecondary educational institution that has chosen to participate in the TEACH Grant Program.
- Be enrolled in coursework that is necessary to begin a career in teaching or plan to complete such coursework. Such coursework may include subject area courses (e.g., math courses for a student who intends to be a math teacher).
- Meet certain academic achievement requirements (generally, scoring above the 75th percentile on a college admissions test or maintaining a cumulative GPA of at least 3.25).
- Sign a TEACH Grant Agreement to Serve (see below for more information on the TEACH Grant Agreement to Serve).

**High-Need Field**

High-need fields are the specific subject areas identified below:

- Bilingual Education and English Language Acquisition.
- Foreign Language.
- Mathematics.
- Reading Specialist.
- Science.
- Special Education.
- Other identified teacher shortage areas as of the time you begin teaching in that field. These are teacher subject shortage areas (not geographic areas) that are listed in the Department of Education’s Annual Teacher Shortage Area Nationwide Listing at [http://www.ed.gov/about/offices/list/ope/pol/tesa.doc](http://www.ed.gov/about/offices/list/ope/pol/tesa.doc).

**Schools Serving Low-Income Students**


**Teach Grant Agreement to Serve**

Each year you receive a TEACH Grant, you must sign a TEACH Grant Agreement to Serve that will be available electronically on a Department of Education Web site. The TEACH Grant Agreement to Serve specifies the conditions under which the grant will be awarded, the teaching service requirements, and includes an acknowledgment by you that you understand that if you do not meet the teaching service requirements you must repay the grant as a Federal Direct Unsubsidized Loan, with interest accrued from the date the grant funds were disbursed. Specifically, the TEACH Grant Agreement to Serve will provide that:

- For each TEACH Grant-eligible program for which you received TEACH Grant funds, you must serve as a full-time teacher for a total of at least four academic years within eight calendar years after you completed or withdrew from the academic program for which you received the TEACH Grant.
- You must perform the teaching service as a highly-qualified teacher at a low-income school. The term highly-qualified teacher is defined in section 9101(23) of the Elementary and Secondary Education Act of 1965 or in section 602(10) of the Individuals With Disabilities Education Act.
- Your teaching service must be in a high-need field.
- You must comply with any other requirements that the Department of Education determines to be necessary.
- If you do not complete the required teaching service obligation, TEACH Grant funds you received will be converted to a Federal Direct Unsubsidized Stafford Loan that you must repay, with interest charged from the date of each TEACH Grant disbursement.

**External Scholarships**

Many foundations, corporations, business and civic organizations, and private individuals contribute scholarships for students attending CMU. The best source of information on these opportunities is a local high school counselor.

**Employment Programs**

Job opportunities, on and off campus, are available to CMU students, regardless of financial need, who are enrolled at least half-time each semester. Employment in moderation can be beneficial to a student’s educational experience, and earnings can often reduce or eliminate the necessity to borrow. Over 5,000 students work on campus earning over $8 million yearly.

**Federal Work Study Program**

The university participates in the Federal Work Study Program (FWS). Students must be U.S. citizens or eligible noncitizens and meet all other requirements included in the Financial Aid Eligibility section. Students must be enrolled at least half time. Job placement extends to most areas of university activity. Pay rates are commensurate with federal minimum wage guidelines. Students are paid once every two weeks for hours worked.

Once students have earned the amount for which they are eligible, it is for the employing department to determine if students will remain employed and paid from another funding source.

Students are not required to accept a job offer in order to receive other types of aid. If students want to replace all or part of the value of the job offered with a loan, they must write to or make an appointment with a financial aid advisor to discuss this option. Substitution of a loan for a job assignment can occur if loan funds are available.

Summer employment for Federal Work Study students may be available on campus. Students must file the FAFSA for the succeeding year in order to be determined eligible, and complete a summer financial aid application.
Michigan Work Study

The Michigan Work Study Program (MWS) is designed to provide work opportunities for needy students who are Michigan residents and who enroll at approved degree-granting Michigan colleges on a half-time basis.

Qualification for this program is the same as for Federal Work Study, and students must document Michigan residency.

University Employment/General Student Assistance Employment

Other student jobs are available on campus in addition to those described under the Work Study Programs. General Student Assistance positions are funded by the state through the university. Half-time enrollment status is also required for employment under this program.

Off-campus Employment

Businesses and individuals in the Mt. Pleasant and surrounding areas utilize the Student Employment Office to advertise available part-time positions through up-to-date job postings. Information on summer employment is also posted and includes local, state, national, and international opportunities.

Loan Programs

Several loan programs are available. A student is not required to accept a loan in order to receive other types of aid. Students should consider replacing part of the value of a loan with a job. Contact Student Employment to determine whether employment is available.

Students accepting student loans are committing themselves to a serious legal and moral obligation: loans must be repaid. Repayment may take ten years or longer after leaving Central Michigan University. Students are urged to consider their ability to repay a loan, their future credit rating, and their potential indebtedness before accepting a loan. The staff of the OSFA are available to discuss the implications of loans on the student's future financial situation.

Federal Perkins Loan

Federal Perkins Loans are offered to full-time students who are U.S. citizens or permanent residents. Students may borrow up to $4,000 annually, $20,000 total for undergraduate study. The Perkins Loan is intended for students who have exceptional financial need. Because of limited funding, preference is given to undergraduate student applicants.

Loan Stipulations

No interest is charged on this loan while the student maintains at least half-time status, but five percent interest is charged beginning nine months after the student leaves school. The student has up to ten years to repay the loan after leaving school, depending on the amount that was borrowed. Default of repayment is allowed for additional graduate work and for military, Peace Corps, and VISTA service; officers in the Commissioned Corps of the Public Health Service; law enforcement services; full-time volunteers in some non-profit organizations, serving required internship for professional practice or service; and certain types of disability cases. Up to 100 percent of the loan may be canceled for a student who becomes a special education teacher or a teacher in an economically and culturally deprived area. The promissory note contains more detailed information.

Once offered, Federal Perkins Loan money will not be credited to the student’s account until the promissory note is completed, signed and returned to the OSFA. Normally the loan will be divided and credited equally to the Fall and Spring portions of the university billing statement.

Typical Loan Repayment Schedules

The following tables represent typical repayment schedules for student borrowers of Federal Perkins Loans. Borrowers should read the promissory note carefully to ensure that they fully understand the terms of the loan before the loan is accepted. Typically, Federal Perkins Loan payments are made every quarter.

<table>
<thead>
<tr>
<th>Amount Borrowed</th>
<th>Amount of Payment</th>
<th>Number of Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1,000</td>
<td>$120.00</td>
<td>13</td>
</tr>
<tr>
<td>2,000</td>
<td>120.00</td>
<td>27</td>
</tr>
<tr>
<td>3,000</td>
<td>120.00</td>
<td>40</td>
</tr>
<tr>
<td>4,000</td>
<td>128.00</td>
<td>40</td>
</tr>
<tr>
<td>5,000</td>
<td>160.00</td>
<td>40</td>
</tr>
<tr>
<td>6,000</td>
<td>192.00</td>
<td>40</td>
</tr>
<tr>
<td>7,000</td>
<td>223.00</td>
<td>40</td>
</tr>
<tr>
<td>8,000</td>
<td>255.00</td>
<td>40</td>
</tr>
<tr>
<td>9,000</td>
<td>287.00</td>
<td>40</td>
</tr>
<tr>
<td>10,000</td>
<td>319.00</td>
<td>40</td>
</tr>
</tbody>
</table>

Loan Exit Interviews

Federal regulations and university policy require students who have taken a Federal Perkins Loan to attend a loan interview before graduating or withdrawing from the university. Important information concerning repayment schedules and deferment and cancellation provisions will be discussed. Students must attend and should contact the Loan Accounting Office, 105 Warriner Hall to arrange for the interview immediately before leaving the university. A hold on transcripts and future registration will be placed on those who do not complete the exit interview.

Federal Stafford Direct Loan Program

Subsidized Loans. Subsidized loans are made to students by the federal government and applied directly to the students' accounts. These loans are based on need, and eligibility is determined by the OSFA. All applicants must file a FAFSA. Loan applications are not required. CMU will initiate processing unless the student declines the suggested Federal Direct Loan on the award statement.

Undergraduate students making satisfactory progress who carry at least six (6) semester hours may borrow up to $3500 for the first year of undergraduate study, $4,500 for the sophomore year, and $5,500 for the junior and senior years of undergraduate study, depending on financial need. The aggregate maximum for undergraduate study is $23,000. Graduate students making satisfactory progress who carry at least five (5) semester hours may borrow up to $8,500 per year, or up to their financial need, whichever is less. The aggregate maximum for undergraduate and graduate study combined is $65,500. Application is usually made for one semester or an academic year (9 months), with summer school requiring a separate application.

Borrowers, beginning July 1, 2008, may borrow at an annual fixed interest rate of 6%. There is a 2.5 percent origination fee deducted from the loan amount.

Six months after ceasing to be at least a half-time student, the borrower must begin repayment. Several repayment options are available; contact the federal servicer. Payment of principal may be deferred under certain conditions. Refer to your promissory notes for details.
Unsubsidized Student Loans. Provisions are the same as the Federal Direct Subsidized Loans, except that the loan is not based on need. The program is open to students who do not qualify for the Federal Direct Subsidized Loans or who do not qualify for the full amount. The student is responsible for the interest that accrues while he/she is in school. Independent students may borrow the Federal Direct Subsidized Loan limits as well as an additional Federal Direct Unsubsidized Loan up to $4,000 per year for freshmen and sophomores, up to $5,000 per year for other independent undergraduates, and up to $12,000 per year for graduate students. The repayment interest rate is the same as the Direct Subsidized Loan. Beginning July 1, 2008, the interest rate that borrowers pay while in school is a fixed rate at 6.8%. There is an origination fee of 2.5 percent.

Direct PLUS (Parent) Loans
The Federal Direct PLUS Loan program makes loans at an annual fixed interest rate of 7.9% to pay for the costs of study at postsecondary schools. Repayment begins within 60 days after the loan has been fully disbursed. Under the program parents are eligible to borrow on behalf of dependent undergraduate students. Loan funds may be used only to pay for students’ educational costs. The maximum eligibility for a Federal PLUS equals the cost of attendance minus estimated financial aid for the loan period. All applicants must file a FAFSA for the student for whom they wish to borrow. Processing will be initiated when the parent borrower provides requested information for the promissory note. Upon receipt of the signed promissory note, funds will be deposited to the student’s account. The federal servicer is required to check the credit worthiness of all Federal Direct PLUS Loans applicants.

Loan Counseling
Entrance Interviews. Students who have applied for a Federal Direct Student Loan as a first-time borrower are required by federal regulations to complete an entrance interview before their loan funds may be applied to their accounts. Important information on loans, debt management, repayment options and consequences of default will be presented. Information regarding this mandatory session is enclosed with the student’s award package. Exit Interviews. Students who receive a Federal Direct Loan are required by federal regulations to complete a loan interview before graduating or withdrawing from the university. Important information regarding deferment and payment schedules will be discussed. Students must contact the OSFA, located in Warriner Hall, to arrange for an interview before leaving the university. During exit counseling CMU is required to obtain the following information from the borrower:

- expected permanent address
- name and address of the borrower’s expected employer
- address of the borrower’s next of kin
- any corrections to CMU’s records concerning name, address, social security number, references, and driver’s license number.

For Federal Direct loans, CMU is required to provide the above information to the federal servicer within 60 days of the exit counseling completion.

Veterans’ Benefits
Registration for Benefits
Students who are eligible for Chapter 30, 31, 35, 1606 or 1607 benefits are required to register for educational benefits each semester with the Central Michigan University Office of Scholarships and Financial Aid (OSFA), as well as register for classes each semester, in order to receive benefits. Registration should take place approximately 10 to 12 weeks before the beginning of each semester. This time frame will insure adequate time for the United States Department of Veterans Affairs (USDVA) to process benefits and prevent an interruption of benefits. VA students in Off-Campus Programs must apply for VA educational benefits at the center in the area where the courses will be offered.

Withdrawals
Students receiving VA benefits must notify CMU’s OSFA when a change is made in their enrollment status. If this notification is not given, CMU will notify the USDVA that the last day of attendance was the first day of the course(s).

Declaring a Major
All undergraduate students must declare their major with Central Michigan University and the USDVA by the time they have earned fifty-six (56) credit hours. Students must submit a copy of an academic audit (audits are completed by Undergraduate Academic Services) as soon as the major and minor are declared and acceptance into a program of study has been received. Failure to comply with this requirement will prevent certification of eligibility for future semesters. VA students in the undergraduate Off-Campus Programs must submit an approved copy of their program plan to the OSFA.

Minimum Degree Hours
Certification of eligibility will be denied once the minimum hours required for a degree from CMU have been completed. Exceptions can be made by contacting the OSFA as soon as possible for information about this procedure.

Requirements for Bachelor’s Degree - 124 Credits
Requirements for a Master’s Degree - 36 Credits

Incomplete/Deferred Grades
“I” and “Z” grades must be converted to a punitive grade within one calendar year of the date of receipt. The VA will be notified of any non-punitive grade and repayment of benefits may be required.

Audit Grades
Certification of eligibility by the university is prohibited for audit grades (X).

Repeat Grades
A student may be certified for a repeat course only if the grade received was not accepted by the university as a passing grade or a better grade is required to earn your degree.

Failing Grades (E)
Students receiving VA benefits who receive failing grades must notify the OSFA. The OSFA will notify the USDVA of the failing grade if the student did not take the final exam. The student will be required to repay the funds received for that course.

No Credit Grades
Certification of eligibility by the university is prohibited for no credit grades.

<table>
<thead>
<tr>
<th>Minimum Hours of VA Benefits</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Time</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>3/4 Time</td>
<td>9-11</td>
<td>7-8</td>
</tr>
<tr>
<td>1/2 Time</td>
<td>6-8</td>
<td>5-6</td>
</tr>
<tr>
<td>Less than 1/2 Time</td>
<td>1-5</td>
<td>1-4</td>
</tr>
</tbody>
</table>

* Students enrolled less than 1/2 time are eligible for tuition and fees only.
Satisfactory Academic Progress

All students receiving VA education benefits are required to maintain academic progress according to published standards established and enforced by the University (see Financial Aid Policy on Satisfactory Progress). Central Michigan University’s Standards of Progress have been approved by the State Approving Agency (SAA) and accepted by the U.S. Department of Veterans Affairs (USDVA).

Title 38, United States Code, Sections 1674 and 1724, requires that education assistance benefits to veterans and other eligible persons be discontinued when the student ceases to make satisfactory progress toward completion of his or her training objective. Accordingly, the OSFA will discontinue certification of enrollment and will inform the USDVA of a termination of benefits (due to unsatisfactory progress) for undergraduate and graduate students who are placed on financial aid suspension. The OSFA will not certify future enrollment until satisfactory progress has been regained. Students have a right to appeal termination of benefits.

Curriculum Requirement

Students receiving VA benefits at CMU must take courses that are in a degree granting curriculum.

Internships, Practica, Independent Studies, and Theses

Internships, practica, independent studies, and theses that meet USDVA definitions may be certified. All courses listed in the CMU Bulletin(s) as internships, practica, independent studies, field studies, etc., will be considered as independent study for certification purposes. A completed and signed “Instructor Letter for Independent Study” (available in Warriner 202) and a copy of the course syllabus must be submitted with the Veterans Registration Form before benefits can be certified.

Audit

The above guidelines are strictly enforced. Each semester, an audit is conducted by the OSFA to ensure the student is following the required guidelines. Any questions or concerns should be directed to the OSFA, 202 Warriner Hall.

Benefits for Children of Deceased or Totally Disabled Veterans

Public Act 245

Sons or daughters of a veteran who died for service-connected causes or who is totally disabled as a result of service-connected causes of any war in which the United States has been a participant, may be eligible for benefits under Public Act 245 of the Public Acts of 1935, as amended. The benefits waive an annual fee of $2,800 until the student reaches 26 years of age. Anyone who believes he or she is eligible should request an application from the Michigan Office of Scholarships and Grants (888-447-2687). Recipients must be enrolled at least half-time and must maintain a minimum cumulative 2.25 grade point average for undergraduate coursework.

Contact Information

All students covered under any of the above programs should contact the CMU OSFA, 202 Warriner Hall, 989-774-3674 for additional information.

Other Sources of Financial Aid

Michigan Rehabilitation Services

Michigan Rehabilitation Services (MRS) is an arm of the Michigan Department of Career Development, designed to provide rehabilitative services to vocationally handicapped or impaired individuals.
Central Michigan University Honorary and Memorial Funds

Named funds are designed to acknowledge a person or persons with a special relationship to CMU while strengthening the university’s student financial aid program, academic programs or administrative services. The accounts are named in honor of, or in memory of, loved ones. Named endowed awards and scholarships are listed on the following pages of the Bulletin.

Central Michigan University Scholarship Programs

Privately funded endowments provide supplemental funding to students based on need, academic focus, career aspirations or other specific criteria. Many of the endowed scholarships available for students are awarded by academic departments. A listing of the academic departments awarding scholarships is available in the Office of Scholarships and Financial Aid.

Remaining scholarships are awarded to applicants who file a “Bulletin Scholarship Application” and submit it to the Office of Scholarships and Financial Aid. Applications for Bulletin scholarships are available March 1 and are due April 1. Scholarships are generally awarded in the spring and summer for the next academic year. Most endowed scholarships require the student to be an undergraduate and enrolled full time (12 hours) in a degree-granting program on campus. Awards are based on academic standing and financial need.

If you receive a Bulletin scholarship and other need-based financial aid, it may be necessary for the Office of Scholarships and Financial Aid to adjust your financial aid package.

AAUW - M. Ruth Evans Award

Established in 1991 by Jackie M. Evans, members of the M. Ruth Evans family and members of the Mt. Pleasant, Michigan branch of the American Association of University Women (AAUW) in memory of M. Ruth Evans, wife, mother and friend, for a sophomore, junior, senior or graduate student who has been a resident of Isabella County for two or more years and has a GPA of 2.86 or higher.

Lawrence E. Abbott Endowed Scholarship

Established in 2004 by Lawrence E. Abbott ’55. The income from the endowment will support a renewable award for a full-time undergraduate student enrolled in the College of Communication and Fine Arts and majoring in speech. Eligible candidates must demonstrate financial need and maintain an overall GPA of 3.0.

Harold and Iris Abel Honorary Scholarship

Established in 1986 by James F. Althoff in memory of his wife Marian Croft Althoff, ’51, for a student majoring in English.

Rachel Brink Allwardt Endowed Scholarship

Established in 2000 by the estate of Rachel Brink Allwardt ’40. Proceeds from the endowment will be used to establish a scholarship for a junior or senior majoring in child development, accepted into the teacher education program, with a 3.5 minimum GPA.

Marian Croft Althoff Scholarship

Established in 1986 by James F. Althoff in memory of his wife Marian Croft Althoff, ’51, for a student majoring in English.

Alumni Legacy Scholarship

The Alumni Legacy Scholarship was established in 1999 to benefit children and grandchildren of CMU alumni. Applicants must be freshmen or transfer students who meet criteria for admission to CMU. Recipients will be recommended by the CMU Alumni Association Board of Directors with final approval by the Director of Alumni Relations.

Arthur Andersen Endowed Fund in Accounting

Established in 2006, income from the endowment will support a fund for two areas in the College of Accounting: student scholarships and faculty research. Recipients of the scholarship must be incoming freshmen who intend to enroll in the College of Business Administration with an accounting major, have a minimum 3.5 GPA and minimum ACT composite of 25. Faculty recipients will be awarded a summer stipend for conducting valuable research or research projects. More information is available in the College of Business Administration.

Jack and Patricia Anson Endowed Scholarship

Established in 2005 by Todd ’77 and Teresa ’74 Anson in honor of Jack ’50 and Patricia ’47 Anson. Income from the endowment will be used to support a scholarship for a Mount Pleasant, Michigan high school senior who has participated in high school athletics and has a minimum GPA of 3.0.

Charles L. and Mary Fisher Anspach Scholarship

Established in 1994 through a conversion of a loan fund in memory of Central’s distinguished fifth president and in memory of Mrs. Anspach who served the university for 20 years with distinction and grace as the wife of President Anspach (1939 to 1959) for sophomore, junior or senior students with a 3.0 or higher GPA. Contact the Carlin Alumni House for more information.

Charles E. Anthony Scholarship

Established in 1999 by friends and family in memory of Charles E. Anthony, former WCEN owner and prominent Mt. Pleasant businessman, for a journalism major or minor who is an active member of the CM Life staff with a minimum GPA of 2.75.

Suzanne and Raymond Baber, Jr. Endowed Scholarship for Beaver Island Students

Established in 2007 by Suzanne Baber ’48, ’52 in memory of her husband Raymond Baber, Jr. Income from the endowment will support a scholarship for a biology major or minor with a minimum GPA of 3.0 to be used for tuition, room and board, books, and travel related expenses for a student taking a class at the CMU Biological Station on Beaver Island.

The Suzanne and Raymond Baber, Jr. Endowed Scholarship in Teacher Education

Established in 2002 by Suzanne Baber ’48 and ’52, retired counselor, and Raymond “Bud” Baber, Jr., retired automobile advertising executive. Proceeds from the endowment will be used to support scholarships for juniors or seniors enrolled in the College of Education and Human Services, Department of Teacher Education, with a 3.0 minimum GPA. Preference will be given to students who demonstrate financial need.

Ron and Susan Bacon Outdoor Recreation Award

Established in 2006 by Ron and Susan Bacon in honor of their parents, Ronald and Sophia Bacon. Income from the endowment will support a scholarship for a junior or senior enrolled in the Department of Recreation, Parks, and Leisure Services with a major in outdoor recreation.

Ruby Leora Balduf Endowed Scholarship

Established in 2002 by the estate of Ruby Leora Balduf ’28. Proceeds from the endowment will be used to fund a renewable scholarship for a student enrolled in the College of Education and Human Services with a GPA of 3.0 or higher and demonstrated financial need.

William S. Ballenger, III and Dr. William P. Browne Capitol Internship Program Endowment

Established in 2007 by friends and family of William S. Ballenger, III and Dr. William P. Browne, former CMU employees, to honor their service and dedication in the area of political science at CMU. The endowment recognizes Bill Ballenger’s service as...
the Robert and Marjorie Griffin Endowed Chair in American Government from 2003-2007. The endowment also honors Dr. Bill Browne as a respected friend, colleague, and mentor to the political science department and the College of Humanities and Social and Behavioral Sciences. Income from the endowment will support a renewable internship for an undergraduate or graduate student enrolled in the political science academic program or who has an interest in the study of political science and, who has a minimum GPA of at least 3.0.

**Sue Schrier Bancroft Endowed Music Fund**
Established in 2004 by Sue ’72 and Chris Bancroft. Income from this endowment will support the School of Music by way of faculty development, scholarships, supplies and equipment, program support and guest artists and/or guest speakers. When used for scholarships, the recipients will be students who demonstrate outstanding promise in their field as determined by a School of Music scholarship committee.

**Fay and Genevieve Barhitte Outstanding Student Award**
Established in 1988 by Fay and Genevieve Barhitte for juniors within the Department of Teacher Education and Professional Development.

**Stephen Lawrence Barstow Art Scholarship**
Established in 1993 through the estate of Stephen Lawrence Barstow for two financially needy art students with particular emphasis in promoting Native Americans into the arts.

**Stephen Lawrence Barstow Native American Prize**
Established in 1993 through the estate of Stephen Lawrence Barstow for the outstanding art student.

**John and Jennie Bastow Scholarship and Olson L. Anderson and Catherine Bastow Anderson Scholarship**
Established in 1986 through the estate of Olson and Catherine Anderson for undergraduate students with an above average grade point and need of financial assistance. First preference is given to students from Bay County, MI.

**James O. Beard, Jr. Scholarship**
Established in 1994 by family and friends in memory of James O. Beard, Jr., CMU ’91, who was an accounting instructor and served as faculty advisor for the Student Accounting Society. The recipient may be a senior and a member of the Student Accounting Society.

**E.C. Beck English Scholarship**
Established by Dr. Earl C. Beck, former chairman of the Department of English, for an English major. First preference is given to juniors and seniors on the basis of scholarship, need and probable teaching success.

**Joseph and Selma Bell Scholarship**
Established in 1959 by Joseph and Selma Bell of Riverdale, IL, longtime friends of CMU, for worthy and patriotic students.

**Frances E. Rogers Benson Scholarship**
Established in 1988 by the family of Frances E. Rogers Benson, CMU Life Certificate in 1928, for students with a GPA of 2.8 or higher as selected from East Jordan High School or Charlevoix County high schools.

**Bettisworth Endowed Scholarship in Directing**
Established in 2005 by Denny and Linda Bettisworth and friends. Income from the endowment will be used to fund a renewable scholarship for a junior or returning senior who has demonstrated outstanding promise in theatre directing, as determined by the chair of the Department of Communication and Dramatic Arts.

**Biological Station Scholarship**
Tuition awards are available to students taking courses at the CMU Biological Station at Beaver Island, MI. Contact the director of the biological station for further information.

**Department of Biology Scholarship**
Established in 1989 for one freshman and one transfer student pursuing a biology major. Freshmen scholarships are renewable for up to three additional years if eligibility is maintained. Apply within the Department of Biology.

**Suzanne Rae Bisard Elementary Science Endowed Award**
Established in 2006 by Walt Bisard ’66, ’67 for his wife Suzanne ’75, ’87 in honor of her 26 years of outstanding elementary science teaching career and for their 40th wedding anniversary. Income from the endowment will support a renewable award for a sophomore, junior or senior with a minimum GPA of 3.0. The award may be used for tuition, travel to science meetings, conferences, or membership in science organization(s).

**Paul M. Bishop and Family Endowed Award**
Established in 2003 by Paul M. Bishop and family. Paul M. Bishop was a 1940 CMU graduate and first established this loan fund in 1972. Members of the Bishop family have been long-time residents of Mount Pleasant and strong supporters of Central Michigan University. Three generations of Mr. Bishop’s family have attended and graduated from CMU - daughters Susan B. Johnston, Lucinda B. McCoy and granddaughter Jennie A. McCoy. This renewable award will benefit a junior or senior enrolled in the College of Humanities and Social and Behavioral Sciences who is pursuing a degree in social work and who has a minimum GPA of 3.25. First preference will go to a student who can demonstrate financial need.

**Barbara Bissot Endowed Scholarship**
Established in 2007, the endowment was created by Dr. Barbara Bissot, a former professor in the Department of Teacher Education and Professional Development at CMU, through her estate. Income from the endowment will support a renewable scholarship for a student with a minimum GPA of 3.3 enrolled in the College of Education and Human Services, Department of Teacher Education and Professional Development.

**Mary Ellen and George M. Blackburn Choral Scholar Endowment**
Established in 2006 by Mary Ellen Blackburn in memory of her husband, George M. Blackburn. Income from the endowment will support a student with a music major. Recipient will become the St. John’s Episcopal Church Choral Scholar and will participate in the St. John’s Episcopal Choir and become acquainted with sacred choral literature from the 16th to 21st centuries. Visit the College of Communication and Fine Arts, School of Music for further details.

**Bohannon Family Endowed Scholarship Fund**
Established in 2004 by Lon M. ’75 and Vicki J. Bohannon. Income from this endowment will be used to fund a renewable scholarship for full time undergraduate students enrolled in the College of Business Administration and majoring in accounting. Eligible candidates must be in their junior year or higher, demonstrate financial need, maintain a minimum 3.2 GPA in accounting courses and an overall 3.0 GPA.

**Duane Mark Bouliew History Award**
Established in 1990 by family and friends in memory of Duane Mark Bouliew, CMU senior killed at age 21 in an automobile accident December 16, 1989, for a junior or senior who has earned at least 12 credit hours in history with a minimum 3.25 GPA; has a 3.0 or higher overall GPA; and preferably is a member of CMU’s History Club and Phi Alpha Theta, or active in other campus or community organizations.

**Norvall C. and Evelyn Gagnon Bovee Scholarship**
Converted in 1995 from a loan fund established in 1971 to commemorate Norvall C. Bovee’s 30 years of dedication, service, loyalty and positive effect on CMU as assistant and director of the Keeler Union, business manager, controller and vice president of business and finance between 1940 and December 11,
1970. Annual spendable investment income will be awarded to biology majors studying at the CMU Biological Station at Beaver Island, MI. Application may be made through the Department of Biology.

**Bill Boyden Leadership Award**
Established in honor and memory of W.B. ("Bill") Boyden by family members and friends. Bill Boyden well reflected during his lifetime a unique blend of leadership, community concern and involvement, athletic ability and diverse other talents. The purpose of the award is to foster and recognize similar interests and abilities in deserving students.

**The Brain Research Laboratory Endowed Award**
Established in 2003 by Gary L. Dunbar ’76, chair of the CMU Department of Psychology, and Deborah S. Dunbar ’77. Proceeds from the endowed award will be used to support a student enrolled in the College of Humanities and Social and Behavioral Sciences who is involved in researching neurodegenerative processes.

**William Brehm, Sr. Scholarship**
Established in 1988 by William Brehm for a junior or senior pursuing a business administration degree with a major in hospitality services administration.

**Brewer-Brown-Marsh Endowed Award**
Established in 2004 to honor Patricia Brewer, Lewis Brown and Trena Marsh. Income from the endowment will be used to support a renewable scholarship for a student(s) who graduated from a high school in Michigan and who can demonstrate financial need and commitment to the advancement of African-Americans in the professions.

**Laurel Wood Brice Endowed Award for Life Management Education**
Established in 2002 by Larry Bronson, CMU emeritus faculty member, to honor his parents, the Reverend Lloyd C. and Ica L. Bronson. Proceeds from the endowment will be used to establish a renewable scholarship for a student enrolled in the Department of Human Environmental Studies and majoring in life management education with a GPA of at least 3.0. Preference will be given to students from Mecosta County.

**Reverend Lloyd C. and Ica L. Bronson Memorial Award**
Established in 2002 by Larry Bronson, CMU emeritus faculty member, to honor his parents, the Reverend Lloyd C. and Ica L. Bronson. Proceeds from the endowment will be used to establish a renewable scholarship for a student enrolled in the Department of Human Environmental Studies and majoring in life management education with a GPA of at least 3.0. Preference will be given to students from Mecosta County.

**Chester J. Brown Scholarship**
Established in 1984 by family, friends, and trust of Chester James Brown, '34, and lifelong resident of Isabella County for a student within the Colleges of Communication & Fine Arts or Science & Technology.

**Edward C. Brown Award**
Established in 1991 by CMU faculty, staff, students and friends in memory of Edward C. Brown, director of CMU Health Services from 1978 to 1990, in recognition of the outstanding leadership he provided to health services, the Division of Student Affairs and the university in general for sophomore, junior or senior students who have a cumulative GPA of 3.0 or higher in health education.

**William F. Brown Scholarship**
Established in 1986 by friends in honor of William F. Brown, former Mt. Pleasant resident, for graduating Mt. Pleasant High School or Sacred Heart Academy senior who will be a freshman at CMU.

**Mary Lou Bruce Scholarship**
Established in 1983 by Lieutenant Colonel Gene D. Bruce and friends in memory of Mary Lou, a dedicated military wife and a valued member of the military science and health education families and Mt. Pleasant community, for a junior, senior or graduate student majoring in health education and health science who has earned a 3.0 or higher GPA.

**Roy and Alice Burlington Beaver Island Endowed Award**
Established in 2007 by Dr. Roy F. Burlington, professor emeritus, and his spouse, Alice Burlington. Income from the endowment will support an award for a biology major with a GPA of at least 3.0. Recipient will be at least a sophomore that demonstrates financial need and is enrolled in an independent study in field biology on Beaver Island during Summer Session II.

**Donald Oren Bush Scholarship**
Established by the family in memory of husband and father, Donald O. Bush, professor of Teacher Education and Professional Development, for a junior or senior early childhood and elementary education major with a 2.75 or higher GPA and financial need.

**Marie Donner and Fred R. Bush Scholarship**
Established by Fred R. Bush, family and friends in recognition of Professor Bush, former director of the University Theatre, graduate of CMU and member of the faculty for 33 years. Mrs. Bush was a faculty member in the Department of Music for students of fine arts.

**Hugh Calkins Endowed Scholarship**
Established in 2002 by the estate of Hugh H. Calkins ’33. Proceeds from the endowment will be used to fund a renewable scholarship for a student enrolled in the College of Science and Technology, majoring in meteorology with a GPA of 3.25 or higher, and preferably a 3.5 or higher in the required meteorology, mathematics, and physics courses.

**Cambridge-Howe-Calkins Scholarship**
The Cambridge-Howe-Calkins scholarship honors all the members of the Cambridge, Howe, and Calkins families who have attended Houghton Lake schools. Many of them have gone on to CMU. The scholarship is endowed by the Cambridge Family for an incoming freshman from Houghton Lake High School. The award will be made based on GPA and involvement in school and community activities. The student must live on campus while attending CMU.

**Jerry and Felicia Campbell Endowed Scholarship Fund**
Established in 2003 by Jerry ’62 and Felicia Campbell. Jerry is a current member and past chair of the Central Michigan University Board of Trustees and a member of the Dean’s Advisory Board, College of Business Administration. Mr. Campbell is chairman of the board of Republic Bancorp. This endowment will provide funds for incoming freshman who will be participating in the Centralis competition and who intend to pursue a degree in business. Recipients will have a minimum GPA of 3.5 and a composite ACT score of at least 28. Recipients will be expected to join a business student organization, participate in a mentoring program, and reside in the College of Business Administration’s residential college in their freshman year. This scholarship is renewable if recipients maintain a minimum 3.25 GPA and make satisfactory progress toward their major and degree program.

**Caponigro Public Relations, Inc. Endowed Scholarship**
Established in 2000 by Jeffrey Caponigro ’79, President and CEO of Caponigro Public Relations, Inc. Proceeds from the endowment will be used to establish a renewable scholarship for an incoming freshman majoring in journalism or integrative public relations with an interest in pursuing public relations as a career. The recipient must have demonstrated financial need by university standards and a 3.0 minimum GPA.

**Professor Joseph P. Carey Scholarship**
Established in 1988 by Colonel Alfred Asch, CMU ’50, and Naomi I. Asch of Rockville, MD, in recognition of the positive effect Joseph P. Carey had on students during his career at CMU for a scholarship with preference given to students from Beaverton High School (MI), then Gladwin and Midland counties before other Michigan counties.
Dr. Leslie O. Carlin Scholarship Endowment
Established by Dr. Leslie O. Carlin, a guidance counselor at CMU for 33 years. He and his wife Margo, a housemother, lived in a residence hall for 25 years. The Carlin Alumni House was dedicated to them in 1993. This endowment will provide funds for incoming freshman and community college transfer students who demonstrate financial need. Preference will go to students who, because of family and financial responsibilities, were prevented from participating in extra-curricular activities which might otherwise have qualified them for financial aid. This scholarship is renewable.

Paul G. and Sophia H. Cartwright Scholarship
Established in 1987 by Veronica L. (Cartwright) Telfer, ’70, MA ’75, and Lawrence Cartwright, ’65, MA ’74, and Ed.S. ’75, in memory of their parents, Paul G. and Sophia H. Cartwright, for a junior or senior pursuing an elementary or secondary education profession.

Ellen Case Honorary Scholarship
Established in 1984 by a friend in honor of Ellen Case, Central State Teacher’s College, ’38. Mrs. Case taught in various public Michigan schools including Durand, Midland and Bad Axe.

CBA Alumni Scholarship Endowment
Established in 2005, income from the endowment will provide a scholarship to students with an ACT score of 25 or higher who have expressed an interest in business. The award is renewable up to three additional years if the recipient maintains full time status, a minimum 3.25 GPA and continues progress toward a degree in business.

Beverly A. Gould Chapin Endowed Music Award
Established in 2007 by Dr. Maurice H. Chapin ’51, in memory of Beverly A. Gould Chapin ’51. Income from the endowment will support a renewable scholarship for a student enrolled in the Department of Music. Recipient will be a student who has achieved music candidacy and has successfully completed at least 30 hours of coursework at CMU, with a minimum GPA of 3.0.

Dr. Maurice H. Chapin Pre-Medicine Endowed Award
Established in 2007 by Dr. Maurice H. Chapin ’51. Income from the endowment will support a renewable scholarship for a student enrolled in the Department of Biology pre-medicine program. Recipients of the scholarship will have a minimum GPA of 3.0. The award is to be used for tuition and books.

Karen L. Mohr Chavez Endowed Award
Established by friends and family of Dr. Karen Mohr Chavez, a professor of sociology, anthropology and social work at CMU. Income from the renewable endowment will support an award for an anthropology major with a minimum 3.4 GPA who intends to pursue a graduate degree in the same field. The award will support field or laboratory research and/or regional academic conferences.

Eugene C. Chenoweth Debate Award
Established in 1980 through the estate of Eugene C. Chenoweth for undergraduates who exhibit excellence in intercollegiate debate competition. The award is administered by the director of debate and chairperson of the Department of Communication and Dramatic Arts.

Gabriel Chien Memorial Scholarship
Established in 2003 by Florence Chien in memory of her husband Gabriel Chien, who was a history professor at CMU. Proceeds from this endowment will be used to support a student scholarship. The recipient will be a United States citizen enrolled in the College of Humanities and Social and Behavioral Sciences who has demonstrated a global and historical perspective.

The Christman Company Endowed Scholarship
Established in 2005 by The Christman Company. Income from the endowment will support a renewable scholarship for a student pursuing a major in construction management from the College of Science and Technology. Preference will be given to incoming freshmen who have had three years of high school math. The student must have a minimum GPA of 3.0 and be able to demonstrate financial need.

Citizens Insurance Company of America Scholarship
Established in 1989 by Citizens Insurance Company of America, Howell, MI, for a College of Business Administration student who meets eligibility requirements specified by Citizens Insurance Company of America.

Robert and Susan Clarke Scholarship
Established in 2005 by Robert ’71 and Susan Clarke ’71. Income from the endowment will support a scholarship for a graduate from Harbor Springs High School. Preference will be given to incoming freshman and those pursuing a degree in business or education.

CMU Police Scholarship Fund
Established by the CMU Police Department to provide financial assistance to students.

CMU Women’s Connection Award
Established in 2007 by CMU Women’s Connection donors. This association provides a platform for alumnae and friends to be actively engaged in the advancement of the university and to promote enhanced learning opportunities for CMU students. Income from this renewable award will support a part-time or full-time single parent enrolled at CMU or to a student from a single parent household demonstrating financial need with a minimum GPA of 2.75.

Alice J. Wesley Colby and William F. Colby Scholarship
Established in 1998 by Judith Mynsberge in memory of her aunt, Alice Wesley Colby, ’35, and William Colby. This scholarship is awarded annually to students, preferably from Bay or Alpena Counties, who have achieved a 3.0 GPA in high school and are in need of financial assistance to pursue a career in teaching.

College of Extended Learning Endowed Scholarship
Established in 2001 by alumni and friends of the College of Extended Learning. Proceeds from the endowment will be used to support a scholarship for students enrolled in the College of Extended Learning, with a 3.0 minimum GPA.

Jeanne F. Collins Scholarship
Established in 1986 by Robert John Collins in memory of his wife, Jeanne F. Collins, dedicated administrative assistant to four CMU presidents spanning 23 years.

R. Cedric Colness Vocal Scholarship
Established in 1975 by I. Judith Colness in memory of her husband, Cedric, member of the Department of Music faculty for ten years teaching voice, opera theatre, musical theatre, and voice pedagogy, for a sophomore, junior or senior student majoring in vocal music who exhibits excellence and proficiency in this field.

Computer Science Endowment
Established in 2005. Income from the endowment may be used for undergraduate and graduate scholarships, student awards, professional events in the department and other necessary purchases for the benefit of the computer science department. If used for a scholarship for undergraduates, the students must be incoming freshmen who intend to sign a CPS or ITC major, have a minimum 3.3 GPA and a minimum 25 ACT score. Graduate students must be admitted to the CPS master of science degree program; have a minimum 3.6 GPA, 520 on the verbal GRE, 720 on the quantitative GRE, or proof of acceptance of paper to be published in a journal or presented at a refereed national or international conference.

Fred and Joyce Cook Endowed Scholarship.
Established in 2005 by Fred ’69 and Joyce ’92 Cook. Income from the endowment will support a renewable scholarship for an incoming freshman who has had three years of high school math. The student must have a minimum GPA of 3.0 and be able to demonstrate financial need.
incoming freshman. Preference will be given to a student working toward the advancement of minorities and who can demonstrate financial need.

**Wells Cook Endowed Award**
Established in 2007 by friends and family of Dr. Wells F. Cook ’50, former professor at CMU. Income from the endowment will support a renewable award for students enrolled in business information systems with a minimum GPA of 3.0.

**Cynthia Diane Cordell Scholarship**
Established by the family of Cynthia Diane Cordell, a CMU student who was preparing to become a teacher at the time of her death in December 1968, for worthy junior, senior or graduate level students in good standing pursuing a teaching curriculum.

**Florence Olive Courville Scholarship**
Established through the estate of Florence Courville, a friend of education, for worthy students from Benzie County.

**Crawford & Winiarski/Rodney L. Crawford Scholarship in Forensic Accounting**
Established in 2000 by Rodney L. Crawford ’77. Income from this scholarship will support a junior or senior enrolled in the College of Business Administration with a minimum GPA of 3.7 on a 4.0 scale. The student will also be pursuing the 150-hour requirement for the CPA examination, with intent to pursue a career in public accounting and interest and aptitude in the area of forensic accounting or litigation consulting services.

**Hubert Dixon Crider Scholarship**
Established in 1980 by Muskegon Development Company in honor of Hubert Dixon Crider, Muskegon, MI, for a junior or senior in good academic standing with a major or minor in geology. Mr. Crider came to Michigan in 1925 and was responsible for selecting the well site for the drilling of the first major oil discovery in the state of Michigan. Mr. Crider continued to serve the industry for 55 years in his field of geology. Recipient selection is made by a Department of Geology committee.

**Dorothy L. Galloway Crooks Elementary Education Scholarship**
Established in 2005 by Dorothy L. Galloway Crooks ’54. Income from the endowment will support a renewable scholarship for a junior or senior enrolled in the College of Education and Human Services, admitted to the elementary teacher education program. The recipient must have a minimum GPA of 3.0 and demonstrate financial need.

**Bob Currie Scholarship**
The Bob Currie Memorial Loan Fund, established in January, 1974, was converted to an endowed fund in 1988 to provide an academic achievement scholarship to a CMU student majoring in physical education with preference given to former swimmers from Dearborn, MI.

**Herbert L. and Lillian M. Curry Scholarship**
Established in 1995 by Karen Heydenburg and Dennis Curry in memory of their parents with preference for junior or senior IPC majors with a 3.0 or higher GPA, with an emphasis in oratory/ debate or speech education and participation in debate, oratory or other forensic activities. Applications may be made through the Director of Forensics.

**Waldo J. and Kathryn Curtiss Endowment**
Established in 2005 by Waldo and Kathryn Curtiss. Income from the endowment will support either a scholarship or purchase equipment for learning or physically disabled students.

**Nicholas Cuthbert Biology Scholarship**
Established in 1993 in memory of CMU Professor Emeritus Nicholas Cuthbert. This merit-based scholarship will be awarded to a signed biology major.

**Dalton-Meisel Grant Scholarship**
Established in the mutual will of Frank W. Dalton and Lillian M. Dalton. The Daltons were both CMU graduates who were active in alumni affairs and in Michigan schools.

**Levi, Mildred and Rusch Dees Scholarship**
Established in 1986 for one senior student majoring in voice who has earned a 3.0 or higher GPA. Application may be made through the School of Music each spring.

**G. Roland and Olga Jones Denison College of Business Administration Scholarship**
Established in 1983 by CMU graduates Olga Jones Denison (1940) and “Rollie” Denison (1941) in appreciation of the influence of CMU on their lives as alumni and as residents of the city of Mt. Pleasant. Awards are for one or more junior or senior students of the College of Business Administration. Selection of recipients is made by a committee of the College of Business Administration and based on scholarship, citizenship and need.

**Charlotte Denman/Elanore Thompson Endowed Scholarship**
Established in 2005 by Elanore Thompson in honor of Charlotte Denman. Income from the endowment will support a renewable scholarship for a student admitted to the teacher education program majoring in physical education and pursuing a minor in an academic subject and having a minimum GPA of 3.5. Preference will be given to students who are participating on or working with a CMU varsity athletic team and are not receiving a full athletic scholarship.

**Amie Jo and Kellie Sue Dennis Scholarship**
This one-year scholarship is awarded as selected by a committee from Beal City High School to a graduating senior enrolling at CMU. The endowment was provided by family and friends of Amie Jo and Kellie Sue Dennis in 1986 shortly after their untimely deaths at ages 17 and 15. Amie Jo and Kellie Sue were active and energetic Beal City High School students.

**Gregory and JoAnn DeWitt Endowed Award Fund**
Established in 2008 by Gregory ’83 and JoAnn DeWitt ’83. Income from the endowment will support an award for a full-time sophomore or higher undergraduate student majoring in business from Kent, Ottawa or Muskegon counties with a minimum GPA of 3.0. Preference will be given to a student demonstrating financial need.

**Diehl Award in Business Education**
Established in 2007 by a trust from Ben and Edna Diehl ’40. Income from the endowment will support a renewable award for a student enrolled in business information systems majoring in business teacher education with a minimum GPA of 3.0.

**The Norman C. Dietz Scholarship**
The recipient of the Norman C. Dietz Scholarship is to be a non–music major member of the CMU Marching Chippewas who exhibits outstanding leadership and musicianship and whose integrity is beyond reproach.

**Wendell and Marcia Dilling Chemistry Endowed Scholarship**
Established in 2008 by Wendell and Marcia Dilling. Income from the endowment will support a renewable award for a student enrolled in the College of Science and Technology and the Department of Chemistry with a GPA of at least 3.0.

**Russell and Linda Dippel Family Award**
Established in 2008 by Kristen Holt ’94. Income from the endowment will support a renewable award for a student enrolled in business information systems majoring in accounting with a GPA of 3.7, demonstrating financial need.
Clauada B. Douglass Science Education Award  
Established in 2004 by Dr. Claudia Douglass, professor of biology at Central Michigan University. Income will be used to support a renewable award for a sophomore, junior or senior who has a signed major or minor in integrated science and is pursuing an elementary education certificate. Recipient must have an overall GPA of 3.5 or higher and a GPA of 3.25 in all science classes (excluding mathematics).

Dow Corning MBA Endowed Scholarship  
Established in 2006, the scholarship is in memory of Larry Reed ‘69. Income from the endowment will support a scholarship for a graduate student enrolled in the College of Business Administration’s MBA program. The recipient will have regular admission status in the program and be performing at a high level in their academic coursework.

Edana DuGuay Scholarship for French Study Abroad  
Established in 1986 by the Department of Foreign Languages, Literatures and Cultures in honor of Dr. Edana DuGuay, former professor of French, for a student majoring in French for the purpose of studying abroad. The award is given on a competitive basis to a junior or senior of high academic standing.

J. Dean and Betty L. Eckersley Business Administration Scholarship  
Established in 1996 as a renewable scholarship for a freshman, sophomore, junior or senior student intending to pursue or major in business administration within the College of Business Administration who has earned a minimum GPA of 3.0 for an incoming freshman or sophomore, a 3.25 for a junior and 3.5 for a senior with financial need as determined by CMU. Preference will be given to students from Isabella County, other counties of Michigan and transfer students from Mid-Michigan Community College who were recipients of the J. Dean and Betty L. Eckersley Scholarship. Application may be made through the College of Business Administration.

J. Dean and Betty L. Eckersley Music Scholarship  
Established in 1996 as a renewable scholarship for a freshman, sophomore, junior or senior student intending to pursue or major in music within the School of Music who has earned a minimum GPA of 3.0 for an incoming freshman or sophomore, a 3.25 for a junior and 3.5 for a senior with financial need as determined by CMU. Preference will be given to students from Isabella County, other counties of Michigan and transfer students from Mid-Michigan Community College who were recipients of the J. Dean and Betty L. Eckersley Scholarship. Application may be made through the School of Music.

EHS International Programs Award  
Established in 2008 for student(s) enrolled in the teacher education program in the College of Education and Human Services with a minimum 3.0 GPA. The award will be for an international student and renewable for up to three years of full-time continuous enrollment and/or a domestic student, non-renewable, participating in the eight-week Student Teaching Abroad program.

Leo G. Erickson Excellence in Marketing Scholarship  
Established in 1998 in memory of Leo Erickson, emeritus professor of marketing, who distinguished himself through outstanding contributions to marketing education, research, and administration. Endowment earnings will provide an annual merit-based scholarship for marketing students.

Brent Edwards Memorial Award  
Established in 2005 by friends and family in memory of Brent Edwards. Brent was in his junior year at CMU when he passed away. The recipient of this renewable award will be a student from Flushing High School. Preference will be given to a student planning to or majoring in recreation, parks, and leisure services administration and has a minimum GPA of 3.0.

Educating for Middle Level Excellence & Equity Award (EMLEE)  
Established in 2005 by anonymous donors. Income from the endowment will support a renewable award for a junior or senior with a minimum GPA of 3.0 who can demonstrate financial need and has a major in middle level education.

Dick Enberg Student Athlete of the Year Award  
Established in 2006 by Dick Enberg ‘57. He also received an honorary Doctor of Laws degree from CMU in 1980. Dick currently broadcasts the NFL and College Basketball for CBS, and can be seen commentating for tennis and various other sports on many networks. Income from the endowment will support a scholarship for a student entering his/her senior year or a senior with one year of athletic eligibility remaining. The recipient must have earned a varsity letter during the current academic year and have a minimum 3.2 GPA.

Dick Enberg Endowed Scholarship for Health Professions  
Established in 2006 by Dick Enberg ‘57. He also received an honorary Doctor of Laws degree from CMU in 1980. Dick currently broadcasts the NFL and College Basketball for CBS, and can be seen commentating for tennis and various other sports on many networks. Income from the endowment will support a scholarship for a student entering his/her senior year or a senior with one year of athletic eligibility remaining. The recipient must have earned a varsity letter during the current academic year and have a minimum 3.2 GPA.

Elizabeth Etnire Scholarship for Spanish Study Abroad  
Established in 1988 in honor of Elizabeth Etnire, former CMU Spanish professor, advisor and department chairperson, for CMU Spanish teaching curriculum students to study Spanish abroad.

Charlotte B. Evans Scholarship for German Study Abroad  
Established in 1988 in honor of Charlotte B. Evans, former CMU German professor and department chairperson between 1977 and 1988, for CMU German majors to study abroad.

Fran and Jim Falender Endowed Scholarship in Chemistry  
Established in 2007 by Fran Falender ‘69, ’78 and Dr. James Falender, chemistry instructor at CMU. Income from the endowment will support a renewable award for a student majoring in chemistry or a cross-disciplinary program involving chemistry.

Drusilla Farwell Foundation Endowed Award  
Established in 2007 by the Drusilla Farwell Foundation. Income from the endowment will support a renewable award for a student enrolled in the College of Business Administration with a minimum GPA of 3.0.

Richard D. Featheringham Endowed Organ Scholarship  
Established in 2005 by Dr. Richard ‘81, ’84 and Audrey Featheringham. Income from the endowment will support a renewable scholarship for an undergraduate or graduate student with a minimum GPA of 3.0. Preference is for organ major or minors, then for keyboard major or minors. The student must successfully audition with the School of Music.

Robert G. Fell Endowed Scholarship  
Established in 1986 in memory of Robert G. Fell, former CMU biology professor, for a biology student.

Malcolm H. Filson Endowed Scholarship  
Established in 2000 to honor Malcolm H. Filson, former chemistry department chairman. Proceeds from the endowment will be used to establish a scholarship for a second semester sophomore, majoring in Chemistry, with a 3.0 minimum GPA.

Ronald W. and Berniece F. Finch Scholarship  
Converted in 1995 from a loan fund established in 1962 to commemorate Ronald W. Finch’s 25 years of dedication, service, loyalty and positive effect on CMU as an alumnus. He received his life certificate in 1924, B.S. in 1932, was head football and track coach, initiator of the relays, head of the physical education
department and the first dean of the School of Health, Physical Education and Recreation when Central became a university in 1959. The fieldhouse was named in his honor at the request of alumni, homecoming weekend in 1962. Ronald W. and Bernice F. Finch were active CMU supporters for many years. Annual spendable investment income will be awarded to a senior in education with a major or minor in physical education. Application may be made through the Department of Physical Education and Sports.

First Nighters Scholarship
Established in 1991 by members of First Nighters for students who have an overall GPA of 2.5 or higher and a 3.0 or higher in each Theater and Interpretation class. The recipient must have a signed major or minor in TAI.

Bud Fisher and Fisher Companies Study Abroad Scholarship
Established in 2005 by Bud Fisher and Fisher Companies. Income from the endowment will support a renewable scholarship for a student(s) who wishes to study abroad. The recipient(s) will be a sophomore or higher or a graduate student who has completed at least one semester of study, with a minimum GPA for an undergraduate of 2.7 and 3.2 for a graduate. Preference will be given to students studying in non-Western and non-English speaking countries. The recipient must be a U.S. citizen or permanent resident, demonstrate financial need, be enrolled full time at the time of the award and during the term of study abroad (one or two semester), and fulfill the in-kind service requirement upon return.

David R. Fisher Memorial Award
Established in 2007 by Brett W. Fisher in memory of his father, David R. Fisher, a former university employee. Income from the endowment will support a renewable scholarship for a student enrolled in the Department of Art with an interest in the study of photography and a minimum 3.0 GPA.

Fisher/O’Boyle Endowed Award
Established in 2007 by Jodi Brookins-Fisher `89, PhD and Irene O’Boyle `88, `91, PhD, professors in The Herbert H. and Grace A. Dow College of Health Professions, School of Health Sciences. Income from the endowment will support a renewable award for a junior or senior with a declared major in public health education and health promotion or school health education with a minimum GPA of 3.0.

Frances G. Fitch Art Scholarship
The Department of Art Scholarship established in 1988 was renamed in 1993 to commemorate former art faculty member Frances G. Fitch. Junior or senior recipients with a 3.5 or better GPA in art classes are chosen by members of the Department of Art.

Kelly Lynn Fitzpatrick and Bruce William Wood Scholarship
Established in 1992 by family and friends of two alumni for rotating scholarships for CMU students in broadcast and cinematic arts and journalism.

Mae B. Fleming Award
Established in 1999 by Nancy J. Blay in memory of her mother Nancy Mae Bowers Fleming, former teacher and CMU house-mother, for an education major who is active in extra curricular or community activities.

Kendall W. Folkert Award
Established in 1987 in memory of Kendall W. Folkert, former chairperson and professor in the Department of Religion, for a graduating senior who has been admitted to a graduate program in South or East Asian studies or undergraduates pursuing work in South or East Asian studies through a study-abroad program.

E. Evelyn Fuller Memorial Endowed Award
Established in 2001 by the E. Evelyn Fuller ’40 estate. Proceeds from the endowment will be used to establish an award based on financial need, the recipient must be a Michigan resident studying education with a junior class status. The award is renewable one semester only.

Carl V. and Margaret Hahn Furney Scholarship
Established in 2007 to provide educational scholarships to single parents who are in need of financial assistance. Students who are seeking a degree in teacher education or who are currently majoring in teacher education shall be given first preference. The recipient is to attain the minimum GPA to qualify or maintain their teacher education major status. The money may be used for tuition, books, or to assist with child-care while the recipient single parent attends classes. The maximum payment should not exceed $15,000 per year and is renewable.

Edmund and Marjorie Galant Endowed Award
Established in 2006 by Dr. Richard Galant in honor of Edmund ’40 and Marjorie Galant ’41. Income from the endowment will be used to support a renewable award for a junior or senior admitted to the secondary education program in the Department of Teacher Education and Professional Development with a minimum GPA of 3.5 and resident of the State of Michigan.

Myron and Hazel Georgia Scholarship
Established in 1990 by William Myron and Hazel Georgia of Harrison, MI, for students pursuing a teaching major in industrial and engineering technology.

William R. Gemma Memorial Award
Established in 1999 in memory of CMU associate professor William R. Gemma, Ph.D., for Health Services Administration and International Administration majors.

Glenn Family Foundation Scholarship
Established in 2002 by Michael ’73 and Glenda Glenn. Income from the endowment will support a renewable scholarship for a sophomore, junior or senior enrolled in the College of Business Administration majoring in business. The student must have a minimum 2.5 GPA and exhibit financial need.

Theodore Goosen Award
Established by family and friends in memory of Theodore Goosen, former owner of the Mt. Pleasant Malt Shop, for a junior or senior majoring in marketing or hospitality services administration.

Deborah Baroli Govitz Scholarship
Established in 1995 as a memorial by L. Scott Govitz and the CMU Department of Marketing and Hospitality Services Administration for students majoring in hospitality services administration with a minimum cumulative GPA of 2.5 who have at least one full semester remaining before graduation. The scholarship is based on full-time enrollment and is not renewable.

Grand Rapids Alumni Award
Established in 2003 by Grand Rapids Area Alumni to support an endowed award for one or more full-time freshman students that reside in Kent and its contiguous counties. Transfer students are not eligible for this award.

Grand Traverse Alumni Chapter Award
Established in 1992 through funds raised by alumni and friends in Grand Traverse County for a full-time freshman (transfer students are not eligible) with demonstrated financial need. Students will be selected from five counties: Antrim, Benzie, Grand Traverse, Kalkaska and Leelanau counties.

Barbara P. Greene Endowed Scholarship in Political Science
Established in 2004 by Sarah and Edward Cohen (daughter and son-in-law) and friends of Barbara Greene. Barbara was a professor and chair of the political science department prior to her death.
in 2001. Income from this endowment will support a scholarship for students enrolled in the political science department who have interest in state and local government. Recipient must possess a minimum GPA of 3.0 on a 4.0 scale. Preference will be given to a graduate student, followed by a senior or junior.

Robin L. Racette Griffin Endowed Scholarship Fund
Established in 2007 by Robin L. Racette Griffin ’76. Income from the endowment will support a renewable scholarship for a full time undergraduate enrolled in the College of Communication and Fine Arts. Eligible candidates must be a sophomore or higher and maintain a minimum overall GPA of 3.0 and demonstrate financial need.

Edgar L. and Miriam Grim Scholarship
Established in 1965 by family, friends and associates in honor of loyal alumnus, recognized humanitarian, and Michigan Deputy Superintendent of Public Instruction, Edgar L. Grim, for junior or senior students pursuing a teaching curriculum.

Les Gruber Scholarship
Established in 1985 by Jacoba Gruber, family and friends in memory of Les Gruber, former professor in the Department of Communication Disorders, for students majoring in communication disorders.

Hales and Nolan Family Scholarship
Established in 1990 by Glenn R. Hales and H. Marlene Hales, CMU ’78, and renamed in 1992 to commemorate Marlene’s parents, Lois and Delbert Nolan, Sr., for juniors or seniors with a 3.0 or higher GPA.

Aaron C. Hall Scholarship
Established in 1984 by family and friends in memory of Aaron C. Hall, CMU Class of 1958, former director of financial aid and admissions counselor between 1965 and 1987, for Holt High School graduates as selected by Holt High School personnel.

Arnold Hammel KME Endowed Award
Established in 2008 by friends and colleagues in honor of Arnold Hammel ’62, mathematics professor emeritus. Income from the endowment will support an award for a full-time student majoring in mathematics and also an active member of Kappa Mu Epsilon, the mathematics honor organization.

Irvin W. and Velma C. Hartman Scholarship
Established in 2005 by Irvin W. and Velma C. Hartman, friends of Central Michigan University and long-time members of the Mount Pleasant community. Income from the endowment will support a renewable scholarship for an undergraduate student who is applying to the teacher education program and has a minimum GPA of 3.0. Preference will be given to students from Isabella County, Michigan and then to any qualified student.

Robert D. Hays Award for Excellence in Jazz
Established in 1996 for a sophomore, junior, senior, or graduate student considered to be the most improved jazz musician. The recipient will be selected by the School of Music and will presented with this prize at the final jazz concert of the school year.

Michael Herceg and Joan A. Kelley Scholarship
Established in 2006 by Michael Herceg and Joan A. Kelley ’68. Income from the endowment will support a renewable scholarship for an incoming freshman who plans to major in teacher education, has a minimum 3.0 GPA and is a resident of the State of Michigan. Financial need may be considered.

Dr. W.E. Hersee and Idonea Lewis Hersee Endowed Scholarship
Established in 2005 by Sandra and Dennis Olson in honor of Sandra’s parents Dr. W.E. Hersee ’31 and Idonea Lewis Hersee ’31. Income from the endowment will support a renewable scholarship for a junior with a major in biology on the premedicine program and a minimum 3.5 GPA.

Ruth Heyman Honors Scholarship
Established in 2007 by the Ruth Heyman Foundation. Income from this endowment will support a renewable scholarship for a student in the Honors Program demonstrating financial need. Recipient will have a minimum GPA of 3.5 and a minimum ACT score of 25 and must retain Honors Program membership and an average 3.25 GPA in order to maintain the scholarship. Scholarship will cover up to 36 tuition hours per year, standard room and board and book/supply allowance. See Honors Program for more information.

Joyce E. Hoffer Music Endowed Scholarship
Established in 2006 by Joyce E. Hoffer ’54. Income from the endowment will support a scholarship for a freshman who has a high potential for success in music education and a minimum GPA of 3.2. First preference will be given to elementary music majors with second preference given to vocal music majors. This scholarship is renewable.

Rose J. Hogue Scholarship
Established in 1985 in honor of Rose J. Hogue, a professor in the Department of Home Economics from 1919 to 1953, for a junior or senior majoring in dietetics with a 3.0 or higher GPA.

Honors Alumni Endowed Award
Established in 2005 by alumni of the Honors Program. Income from the endowment will support a renewable award for students in good standing with the Honors Program, who have a minimum 3.25 GPA and who have completed 36 credit hours.

Laurene A. Horiszny Outstanding Student in Early Childhood and Elementary Education Award
Established in 1991 through the estate of Laurene A. Horiszny for students pursuing careers in early childhood and elementary education.

Hostutler Scholarship
Established in 1980 by Kenneth L. and Margaret J. Hostutler, residents of Mt. Pleasant and loyal friends of CMU.

Jeanette R. House Memorial Scholarship
Established in 1998 by family and friends to honor her enthusiasm for learning and to encourage students who are pursuing majors in literature or related subjects. Scholarships will be awarded to CMU students entering their senior year who have declared a major or specialization in literature.

Independent Bank Endowed Scholarship
Established in 2006 by Independent Bank of Bay City, Michigan. Income from the endowment will support a renewable scholarship for a student enrolled in the College of Business Administration with a minimum GPA of 3.0. Preference will be given to residents of specific areas of Michigan (see the College of Business Administration for information).

Independent Order of Odd Fellows Award
Established in 1990 by Mt. Pleasant, MI, Lodge #217 for Michigan residents enrolled at CMU who have earned a 2.0 or higher GPA. Initial gifts to create the endowment were made in memory of former lodge members Roy F. Robison and Harley Philo.

Interdisciplinary Degree Programs Endowment
Established in 2004 by Richard ’72 and Mary Lou Hazleton ’86. Mary Lou is a retired speech/language pathologist and current member of CMU’s Development Board. Richard is president and CEO of The Charles J. Strosacker Foundation in Midland and is retired as Chairman and CEO of Dow Corning Corporation. Income from this endowment will be used to support interdisciplinary degree programs in the College of Communication and Fine Arts including music theatre and integrative public relations for needs such as renewable scholarships, supplies and equipment, program support and guest artist/guest speakers. When used for scholarships, the recipients will be those who demonstrate outstanding promise in their field as determined by the program.
Irgang Elementary Education Scholarship
Established in 2003 by Dr. Frank J. ’50, and Virginia Irgang. Dr. Irgang is a published author and professor emeritus from San Diego State University. Proceeds from the endowed scholarship will support two students enrolled in the Department of Elementary Education who are interested in pursuing a teaching career. Recipient must possess a minimum 2.7 GPA, be a Michigan resident, and enrolled full time at CMU. The scholarship is not renewable and preference will be given to students graduating from secondary schools in Lapeer County, Michigan.

Frank and Virginia Irgang Scholarship
Established in 1995 by Frank Irgang, CMU ’50, and Virginia Irgang for Michigan resident, junior and senior students majoring in industrial engineering and technology. The scholarship is based on full-time enrollment and not renewable.

John N. Irwin Scholarship
Established by friends and family of John Irwin, member of the Department of Music from 1967 to 1976, for advanced piano students deemed worthy and needy of an advanced scholarship.

L.A. Johns/Isabella Bank and Trust Endowed Scholarship in Finance
Established in 2003 by Isabella Bank and Trust in honor of Larry Johns, retired president/CEO/director of Isabella Bank and Trust and former CMU Development Board member. Income from the endowment will support scholarships for domestic and international students to study finance, personal financial planning or at the Robert M. Perry School of Banking. Preference will be given to international students. Visit the College of Business Administration for further details.

J. Edward Johnson Scholarship
Former Mt. Pleasant city commissioner and mayor, J. Edward Johnson, moved from Mt. Pleasant to Denver, CO, in 1982. In recognition of his interests and energies dedicated to Mt. Pleasant and well being of CMU, friends established this $1,000 scholarship for a College of Business Administration student bearing a high scholastic average in need of financial assistance to continue higher education.

Dr. Frank D. and M. Virjean Johnson Endowed Scholarship
Established in 2000 by Dr. Frank D. Johnson, ’50, former director of Continuing Medical Education at Central Michigan Community Hospital and his wife M. Virjean, ’51, former elementary teacher, for a sophomore, junior or senior, 3.5 GPA, majoring in chemistry, biology or physics. Alternate year awarded to a science major in teacher education.

Judy Johnson Endowed Scholarship
Established in 2005 by Bill ’65, ’70 and Judy Johnson. Bill is President of The Berean Group, LLC, in Newaygo, a member of the university’s National Campaign Committee and former chair of the Board of Trustees. Judy is a graduate of Newaygo High School and worked at CMU’s Park Library. Income from the endowment will support a renewable scholarship for an incoming freshman from Newaygo High School. The recipient must demonstrate financial need and have a minimum GPA of 3.0.

Irene F. Jorae Scholarship
Established by Rodney J. Rogers as a loan fund in November, 1966, to commemorate dedicated teacher, friend and counselor who gave 36 years of service to CMU. The fund was converted to an endowed scholarship in 1994 for a student majoring in biology (premedical included) as awarded by the Department of Biology.

Tyrone Jordan Endowment
Established in 2003 by Tyrone Jordan, executive assistant to the president - Metro Area, this endowment will benefit an entering freshman from the city of Detroit who shows an interest in the advancement of minorities in American society and who has a minimum GPA of 2.5.

Frank and Rita Jozefaciuk and Aunt Irene Rutkowski Endowed Award
Established in 2006 by the family of Frank and Rita Jozefaciuk and Aunt Irene Rutkowski. Income from the endowment will support a renewable award for a junior or senior with a math major. Recipient must be a U.S. citizen, Michigan resident, and possess a minimum 3.4 GPA. Engineering, computer science, and statistics students will also be given consideration.

Eric H. Kadler Award for Study Abroad
Established in 2005 by Dr. Eric H. Kadler, former CMU employee. Income from the endowment will support an award for students studying abroad. The recipient will be a junior or senior with a 2.7 overall GPA and a 3.0 GPA in a major of French, German or Spanish and a major or minor in another foreign language.

Dr. Thomas and Mrs. Jayne Keating Athletic Training Education Program Scholarship
Established in 2000 by Dr. Thomas and Mrs. Jayne Keating. Income from this endowment will support a scholarship for a student entering his/her third semester in the professional phase of the athletic education program in the Department of Physical Education and Sport. The recipient must be full time with a signed major in athletic training/sports medicine with a 3.0 GPA. Also considered will be leadership skills, accomplishments, cocurricular activities, and financial need.

Don W. Kelsey Scholarship
Established by family and friends in 1982 for students meeting Board of Trustees’ criteria. Don W. Kelsey was instrumental in the development of new materials handling equipment which aided the efforts of our country during World War II. Following the war, Don served the automobile and related industries by providing materials handling and materials storage equipment, which he often designed, through the Don W. Kelsey Company. Mr. Kelsey was a supporter of higher education through annual contributions, and was particularly interested in CMU Special Olympics efforts.

Phillip and Suzanne Kench Scholarship
Established in 2006 by Phillip ’77 and Suzanne ’64 Kench. Income from the endowment will support a scholarship for a junior or senior majoring in management, marketing, human resources, accounting, or who has an interest in the study of business and has a minimum GPA of 2.75. Preference will be given to a Michigan resident who can demonstrate financial need.

Marianne J. Kerr Scholarship
Established by family and friends in 1982 shortly after her untimely death at age 40 for students meeting Board of Trustees’ criteria. Marianne J. Kerr was a dedicated fifth grade teacher at Pullen School in Mt. Pleasant and spouse of former university attorney, J. David Kerr.

Thelma Key Scholarship
Established in 1985 through the estate gift of Thelma Key. Class of 1924 and 1942. Thelma retired from the Grand Rapids public school system in 1966.

Philip Kintzele Accounting Scholarship
Established in 1986 for a non-Centralis Scholar School of Accounting major who has completed at least 75 credit hours and has the highest overall grade point average.

Philip Kintzele Accounting Transfer Students’ Scholarship
Established in 1992 for students who transfer to CMU’s School of Accounting who have earned at least 30 credit hours (six credit hours in accounting).
Leo J. Kipfmueller Endowment Fund for the Summer Remedial Clinics
Established in 2002 by the Department of Communication Disorders to recognize Dr. Kipfmueller’s contributions to the success of summer remedial clinics. After graduating from CMU with a B.A. in 1955 and an M.S. in 1960, Dr. Kipfmueller served 33 years in a number of capacities for the SRC, including student, staff member, faculty supervisor, and director of the program. He worked as a CMU faculty member for 24 years and retired in 1992. Proceeds from the endowment will be used to provide revenue annually to fund scholarships for children without sufficient financial resources to pay summer remedial clinic fees.

Michael J. Kirkpatrick Leadership Award
Established in 1997 by family and friends in memory of Michael J. Kirkpatrick. It will be awarded to a CMU student who has demonstrated exemplary leadership skills in college and/or high school, demonstrated a high level of civic involvement and volunteerism while in college and/or high school, and maintains a high level of involvement with extra-curricular activities at CMU.

Pam Klein Memorial Endowed Journalism Scholarship
Established in 2006 by Bruce Hetrick and family and friends, in memory of Pam Klein ’77. Income from the endowment will support a renewable scholarship for a student majoring in journalism. Recipients of the scholarship must be junior/senior with an a minimum 3.0 overall GPA and a 3.3 in journalism courses. Preference will be given to CM Life journalists or editors. For more detailed information see Department of Journalism.

Thomas S. Knapp Alumni Field Camp Scholarship
Established in 1986 by the Department of Geology for students with the appropriate background for admission to a summer course in geology.

Robert E. and Cordelia B. Kohman Scholarship
Established in 2005 by Robert E. and Cordelia B. Kohman. Income from the endowment will be used to support a scholarship for a junior enrolled in the College of Science and Technology, who has a signed major in chemistry, a minimum GPA of 3.2, and demonstrates outstanding performance in organic chemistry. The scholarship will be renewable for up to two years.

Arthur Loren Kontio Outstanding Young Biologist Award
Established by Arthur Loren Kontio in 1993 to recognize, encourage and praise the outstanding achievement of young biologists at CMU.

Koopman Memorial Scholarship Fund
Established in 2004 by Dr. Margaret O. Koopman Joy ’26, who taught social science at Central Michigan University. The income from this endowment will fund a renewable scholarship for students who have been accepted in the Teacher Education Program, have a minimum 3.0 GPA and are majoring in one of the social sciences: sociology, political science, economics, history or geography.

Nancy and Ted Kortes Spanish Award
Established in 1993 for students studying in Spain or Latin America. Recipients must have a signed major or minor in Spanish and maintain at least a 3.0 GPA in Spanish classes.

Fredrick and Rosemary Kreft Endowed Scholarship Award
Established in 2003 by Ira ’77 and Anne Kreft. Ira is a current member of the CMU National Campaign Committee, Dean’s Business Advisory Council, alumni and development boards. Income from the endowment will support a renewable scholarship for an incoming freshman who intends to study accounting, has a minimum GPA of 3.5, and a composite ACT score of 24 or higher. Preference will be given to students from specific counties in Michigan; visit the College of Business Administration for further details.

Olive Hutchinson Kries Biology Scholarship
Converted in 1996 from a loan fund established in 1976 through the estate of Dr. Olive Hutchinson Kries, an esteemed member of the Department of Biology from 1936 to 1960. Spendable investment income will be awarded to CMU biology majors who have completed at least 30 total CMU credit hours prior to application and who have earned a 3.45 or higher GPA based on a 4.0 scale as selected by the Department of Biology.

Ole H. Kristofferson Award
Established as a loan fund by family and friends in 1974 and converted to an endowment in 1990 to commemorate Dr. Kristofferson, former senior member of the first faculty of the Department of Geology, for an award or appropriate equipment to geology students based on merit or achievement.

Mabel and DeWayne Kyser Scholarship
Established in 2004 by Nickolas Kyser and family and friends of Mabel ’37 and DeWayne Kyser ’35. Income from this endowment will support a renewable scholarship for students enrolled in the College of Education and Human Services and who are admitted to the teacher education program, have a minimum GPA of 3.0, and able to demonstrate financial need.

LaBelle Management Scholarship
Established in 1995 to reward junior hospitality services students for their excellence in either service or academics, and to strengthen the students’ education. The selection shall be coordinated through the department chair of Marketing and Hospitality Services Administration.

Gilles Labrie Scholarship
Established in 2006 by John G. Labrie ’89 in honor of his father Gilles Labrie, professor of foreign languages, literatures and cultures at CMU. Income from the endowment will support a renewable scholarship for a sophomore, junior, or senior with a signed major in French and a minimum GPA of 3.0.

Langenburg-Dunn Endowed Scholarship
Established in 2007 by Edward R. ’66 ’70 and Kathryn R. Langenburg ’64. Income from the endowment will support a renewable award for a junior or senior pursuing a bachelor of science in education, secondary education emphasis, majoring in math with a minimum GPA of 3.0. First preference will be given to a student from Bay City, then Bay County, then Michigan.

George N. and Ernestine R. Lauer Scholarship
Established in 1989 by George and Ernestine Lauer in appreciation of CMU and their family for a renewable scholarship for a Michigan resident junior with a 3.0 or higher GPA majoring in mathematics, computer science, speech pathology or English.

Bessie Cooper Lewis Scholarship
Established in 1990 by family members in memory of Bessie Cooper Lewis for a senior who has been accepted into the teacher education program in early childhood and elementary education.

Dorothy Warriner Lewis Scholarship
Established in 1990 by family members in memory of Dorothy Warriner Lewis for a senior who has been accepted into the teacher education program in early childhood and elementary education.

Dorothy Warriner Lewis Scholarship
Established in 1990 by family members in memory of Dorothy Warriner Lewis for a senior who has been accepted into the teacher education program in early childhood and elementary education.

Lichtenfelt Scholarship
Converted in 1968 from a loan fund established in 1967 by Richard J. Lichtenfelt, Jr. and family in memory of Richard, Ruth, and Wendell Lichtenfelt, parents and brother, for a junior or senior with preference given to hotel and restaurant management, law, ministry or K-12 education majors.

Heather Lichtle Memorial Scholarship Fund
Established in 2002 by friends and family of Heather Lichtle, former CMU student. Proceeds from the endowment will be used to establish a renewable scholarship for a student enrolled in the
College of Education and Human Services who has an interest in teacher education and a GPA between 2.7 and 3.5. Applicants must complete an essay describing their reasons and motivation to pursue a career in education.

Leslie and Leonard Lieberman Scholarship
Established in honor of Leslie Lieberman, a specialist in family studies and faculty member at CMU from 1965 until her death in 1992, and Leonard Lieberman, specialist in physical anthropology and faculty member at CMU from 1965 until his retirement in 2004. Applicants must be majors in sociology, anthropology, social work or family studies; have a GPA of 3.4 or better; and be a junior or senior in the semester following application. Recipients are chosen on the basis of academic performance and writing skills as demonstrated in an essay describing career goals to be submitted with the application. Several awards are made each year and vary from $500 to $1,000.

Elma I. Lighter Scholarship
Established by Miss Lighter, member of the English faculty from 1932 to 1959, to honor students. The recipient must be in good academic standing and active in the university community.

Damon P. Lindley Achievement Award
Established by family and friends of Damon P. Lindley, an executive of Wyandotte Cement Corporation. The purpose of the award is to aid graduating seniors in the Department of Business Information Systems during their final semester. Selection is based on overall academic achievement, initiative and contribution to the department.

Dr. David S. and Bernice A. Nelson Lirones Scholarship
The Lirones Loan Fund, established in 1960 to honor parents Mr. and Mrs. Sam Lirones and Mr. and Mrs. Edward Nelson, was converted to an endowed fund in 1988 for a junior student with a 3.0 or higher grade point average with preference given to pre-medicine and osteopathy, teacher education or science majors.

Helen M. Lohr Scholarship
Established in 1987 through the estate of Helen M. Lohr for a student within the Department of Human Environmental Studies.

Kirk H. Love Scholarship
Established in 2006 by Kirk H. Love ’77. Kirk is a current member of the CMU Development Board and the College of Business Administration Campaign Committee. Income from the endowment will support a renewable scholarship for a student who has an interest in the study of finance or personal financial planning, a minimum GPA of 3.5, and qualifies for CMU’s Board of Trustees Scholarship.

Lee R. Lyons Prize
Established in 1989 in memory of Lee R. Lyons through a bequest from Charles Maxwell Lyons for a senior with a 3.25 or higher GPA majoring in early childhood and elementary education.

Jette MacNeil Endowed Scholarship Fund
Established in 2001 by the Estate of Jette MacNeil ’94, formerly known as Jette Bookless of Rochester Hills. Proceeds from the endowment will be used to support scholarships, room and board, textbooks and other related expenses for students with demonstrated financial need by university standards.

Alan W. Madsen Scholarship Fund
Established in 2000 by Alan W. Madsen ’68, founder and former president of Corporate Personnel Consultants, Inc., and his wife Janet E. Madsen. The scholarship will be awarded to a sophomore, junior or senior in the College of Business Administration with a minimum 2.8 GPA; preference will be given to members of Alpha Kappa Psi national business fraternity.

Gilbert O. Maienknecht Communications Scholarship
Established in 1982 by family, friends and former students for merit scholarships to students in journalism, student media and broadcasting with selection made by the Department of Journalism in consultation with the other two areas. Dr. Maienknecht was a member of the faculty from 1948 until retirement in December 1982. He was founder of both the Department of Journalism and Information Services.

Margaret E. Sanford Marquardt Memorial Endowed Scholarship
Established in 2007 by Richard G. Marquardt ’59 in memory of Margaret E. Sanford Marquardt ’55, ’60. Income from the endowment will support a renewable scholarship in the Department of Communication Disorders for either a graduate student with a 3.5 GPA or higher or an undergraduate with a 3.25 GPA or higher. First preference will be given to a physically challenged graduate student and then a physically challenged undergraduate student registered with the Office of Student Disability Services. For further information see the Office of Scholarships and Financial Aid.

Linda Jaye Masak Scholarship
Established in 1990 by the parents of Linda Jaye Masak for juniors or seniors majoring in accounting as awarded by the School of Accounting.

Paul Carl Mathis II Scholarship
Established in 1987 in memory of Paul C. Mathis, professor of economics at CMU from 1962 to 1985, for an outstanding student in economics.

Keith L. Maxwell Scholarship
Established in 1984 through the estate of Ellen Mercer Clark Maxwell in memory of her husband, Dr. Keith L. Maxwell, for students in the Department of Communication Disorders.

Jean Mayhew Interdisciplinary Award in Language Arts
Professor Mayhew, member of the faculty from 1952 to 1981, established this for junior or senior Michigan resident students majoring in the field of language arts or an equivalent program in speech communication and dramatic arts based on an overall 3.0 or higher GPA as selected by Department of Communication and Dramatic Arts faculty.

Robert E. McCabe Music Scholarship in Memory of Robert Hohner
Established in 2001 by Robert E. McCabe in memory of Robert Hohner, former CMU percussion instructor. Proceeds from the endowment will be used to establish a scholarship for an approved and active music major whose primary instrument is percussion, with a minimum 3.5 GPA, and demonstrated financial need by university standards.

Robert E. McCabe Scholarship
Established in 1998 by Robert McCabe, ’46, for undergraduate or graduate students with a minimum 3.2 GPA and financial need. First preference will be given to students pursuing a degree in journalism. If no qualified candidate is identified, then the scholarship shall be awarded to a student pursuing a degree in liberal arts.

Diane McCann Memorial Endowed Scholarship
Established in 2002 by Joseph McCann ’59, in memory of his wife Diane McCann. Proceeds from the endowment will be used to establish a renewable scholarship for a sophomore level student or higher with a GPA of 2.8 or higher and who is a member of the Central Michigan University Varsity Baseball Team.

Walter W. McCrery, Ph.D., Scholarship
Established in 1986 to provide a scholarship for a student pursuing a teaching career.

McDonald Future Science Teachers Scholarship
Established in 2006 by Jim and Jamie McDonald. Income from the endowment will support a renewable scholarship for a sophomore, junior, or senior elementary education, pre-service teacher majoring in science, biology, physics, or any of the hard sciences with a minimum 3.5 GPA.
Gene and Melissa McKay Endowed Scholarship  
Established in 2004 by Gene ‘82 and Melissa McKay. Gene is a current CMU Development Board member. Earnings from this endowment will be used to support a renewable scholarship for entering freshmen or transfer students with demonstrated financial need, pursuing a degree in the College of Business Administration and who have a GPA of 3.0 or higher.

Edward E. McKenna Academic Excellence Award  
Edward E. McKenna served as a faculty member in the Department of Sociology, Anthropology, and Social Work from 1969 to 1992. The scholarship is to be awarded annually to a student or students whose research demonstrates exemplary achievement in sociological research methods. Competition for the scholarship will be held by the sociology department each spring with an application deadline of March 15.

Floyd H. McKibben and Olive Allen McKibben Scholarships  
Mrs. McKibben bequeathed two scholarship funds in memory of her husband and herself for a worthy student. Both Mr. and Mrs. McKibben graduated from CMU and were well-known educators in Gratiot County.

Mary Jane Merrill Scholarship  
Established in 1969 by parents Elwyn E. Merrill, ‘44, and Grace Bonnell Merrill, ‘41, as a tribute to their daughter and her grand-father, Ernest E. Merrill, Ph.D. Mary Jane was a junior majoring in education who lost her life in a car accident October 5. Ernest J. Merrill, Ph.D., was a faculty member from 1921 to 1953 and chairperson of Chemistry and Physics when he retired. Earnings are awarded to second semester junior chemistry majors who have earned a 3.0 or higher GPA and meet other eligibility criteria.

Metro Detroit Alumni Chapter Award  
Established in 2005 by alumni of the Metro Detroit area. Income from the endowment will support a renewable scholarship for two students each year. The first scholarship will be awarded based upon need and the second scholarship will be awarded to a student-athlete. Each scholarship recipient must be at least a sophomore; have a minimum GPA of 2.5; and be from Livingston, Macomb, Monroe, Oakland, Washtenaw, or Wayne County.

Miles Actuarial Award  
Established in 2007 by CMU professor Dr. Thomas Miles and his spouse Cindy. Income from the endowment will support a renewable award to actuarial science majors who have successful performance in courses preparing for the actuarial exam, to assist in the expense of taking the actuarial exam.

Drayton and Minnie Miley Scholarship  
Established in 1981 through the estate of Inez M. Vetter in honor of Dr. Drayton and Minnie Miley for a female student majoring in teacher education and professional development.

Evelyn and William Miller Honorary Scholarship  
Established in 1990 by William and Delores Miller in honor of his parents, Evelyn and William Miller, ‘39, for a student with preference given to graduates from Glen Lake High School or Kingston High School, MI.

William and Delores Miller Endowed Award  
Established in 2005 by Dr. William ‘72 and Delores Miller. Dr. and Mrs. Miller are CMU retirees, Dr. Miller from the math department and Mrs. Miller from health services. Income from the endowment will support a renewable award for a junior with a math major who can demonstrate financial need. Preference will be given to graduates from Michigan high schools.

Kimberly Sue Mills Scholarship  
Established in 1988 by parents and friends in memory of Kimberly Sue Mills for a junior or senior student majoring in biology.

Minelli Family Endowed Award  
Established in 2005 by Dr. Ernest L. Minelli and Dr. Mark Minelli ’75. Income from the endowment will support a renewable award for a student with a signed major or minor in the School of Health Sciences who has a minimum GPA of 3.0. Preference will be given to students studying or interested in any of the public health fields.

MIS Student Award  
Established in 1999 by the Department of Business Information Systems for a MIS major with a 3.0 GPA overall and in MIS courses. Preference will be given to students of The Association for Information Technology Professionals (AITP).

Francis and Mary Lois Molson English Education Scholarship  
Established in 1997 with a criteria change in 2004, this renewable scholarship was established by Francis and Mary Lois Molson. The recipient will be an undergraduate student with an English major or minor, completing the secondary education certification and who has a minimum GPA of 3.25.

Dorothy G. and Robert E. Monica Endowed Scholarship Fund  
Established in 2003 by Dorothy and Robert Monica, friends of CMU. Proceeds from this endowment will be used to support a scholarship for a student with a GPA of 3.0 or higher. Preference will be given to those who can demonstrate financial need.

Moon Family Scholarship  
Established in 1998 in honor of the Martin Moon family of Brunswick, Michigan, for graduates of Fremont High School. This scholarship is awarded annually with preference given to incoming freshmen in need of financial assistance and pursuing a degree in teacher education with a minimum 3.0 GPA.

Moon/Gempel Burton-Bendale High School Scholarship  
Established in 2005 by James H. Moon ‘41 in honor of his good friend and retired superintendent of schools in Bendle, Kenneth Gempel. Income from the endowment will support a scholarship for a freshman from Burton-Bendale High School with a minimum 3.0 GPA. Preference will be given to those who can demonstrate financial need.

Wayne and Ethel Moore Endowed Scholarship  
Established in 2007 by Drs. David ‘77 and Jane Mattis in honor of Dr. Wayne E. Moore, geography professor emeritus, and his spouse Ethel Moore. Income from the endowment will support an incoming freshman who declares an intent to major in geography. Award is renewable for a second year if the student maintains good academic standing and remains committed to geography major with a minimum GPA of 3.0. Students who enhance diversity are especially encouraged to apply.

Wayne E. and Ethel P. Moore Field Trip Award  
Established in 2000 for junior or senior geography majors to support travel, lodging and other expenses for class and department sponsored field trips.

Wilbur Moore Prize  
Established in 1989 in memory of Wilbur E. Moore, founder of what are now known as the Summer Remedial Clinics and the university’s first vice president for academic affairs, for a junior who is enrolled as a major in one of the three departments formerly comprising the Department of Speech and Drama: Communication and Dramatic Arts, Communication Disorders and Broadcast and Cinematic Arts.

Robert and Lura Myers Scholarship  
Established in 1997 by Robert and Lura Myers of Lapeer, Michigan for undergraduate or graduate students with demonstrated financial need as determined by the Office of Scholarship and Financial Aid. Preference will be given to students from Lapeer County.

Lenora Marie Starr Nelson Scholarship  
Established in 1985 by Kenneth L. Nelson in memory of his wife and CMU alumna, Lenora, who devoted her life to the field of
education teaching both general and special education in many different areas of the country.

**New Beginnings Award**
Established in 2006 by alumni and friends of Central Michigan University. Income from the endowment will be used to support a renewable award for a senior who is working either on or off campus while attending CMU. A minimum 3.0 GPA must be maintained and financial need must be demonstrated.

**Linda Nichols Scholarship**
Established in 1985 by family and friends as a memorial to Linda (High) Nichols, CMU alumna and dedicated teacher at Bullock Creek High School in Midland County, for a freshman student residing in the Bullock Creek School District or Midland County. Recipient selection is made by a committee through the guidance department at Bullock Creek High School, 1420 Badour Road, Midland, MI.

**Walter P. Nickell Scholarship**
Converted in 1995 from a loan fund established in 1973 to commemorate Walter P. Nickell, noted Michigan naturalist, ornithologist and teacher who was awarded an honorary CMU Doctorate of Law degree in 1964. Dr. Nickell was affectionately known as the "Birdman of Cranbrook" and served as a faculty member at the Cranbrook Institute of Science for 53 years. Annual spendable investment income will be awarded to a CMU student pursuing a career in museum natural history. Application may be made through the Center for Cultural and Natural History.

**Patricia A. Nixon Scholarship**
Established in 1986 in memory of Patricia A. Nixon, former Department of Music faculty member, for a music major.

**Colonel William B. Nolde Scholarship**
Established as a loan fund in 1973 and converted to an endowment in 1990 for a ROTC cadet. The fund honors Colonel Nolde's devotion to God, country and family. Colonel Nolde was the last combat casualty of the Vietnam War. He was a graduate and former assistant professor of military science at CMU. Colonel Nolde's life was characterized by a dedication to peace and rebuilding, with the hope that all mankind would try to understand one another.

**Dr. Barbara Leiting-O'Connell Family Endowed Scholarship**
Established in 2007 by Dr. John F. O'Connell '83 in memory of Dr. Barbara Leiting-O'Connell. Income from the endowment will support a scholarship for a senior who is working either on or off campus while attending CMU. A minimum 3.0 GPA must be maintained and financial need must be demonstrated.

**Michael F. and Mary F. O'Donnell Endowed Scholarship in Accounting**
Established in 2006 by Michael F. '70 and Mary F. O'Donnell. Mike is a current CMU Development Board member. Income from the endowment will support a renewable scholarship for a student majoring in accounting. The student must be a junior or senior, have completed a minimum of 60 credit hours, and have a minimum GPA of 3.0. Preference will be given to students who can demonstrate financial need.

**C.W. Olmstead Award in Geography**
Established in 1992 by Clarence W. Olmstead, '37, for scholarships or assistantships to Department of Geography students to help them gain appreciation, understanding and experience for geographic research by conducting faculty approved research projects or by assisting faculty in research projects.

Jeanne Opale Endowed Scholarship
Established in 2000 by the estate of Jeanne Opale '87, CMU alumna. Proceeds from the endowment will be used to establish a scholarship to assist worthy students with one parent or no parents.

**Oppenheimer-Mancuso (Lazorshak) Award**
Established in 2000 by the Edith M. Lemieux, '65, Estate for a senior philosophy major who submits an outstanding essay on the subject of the necessity for teaching ethics and/or character development in the elementary grades.

**Kathleen M. and Lawrence J. Oswald Endowed Scholarship**
Established in 2007 by Kathy '79, '86 and Lawrence Oswald. The recipient of this renewable scholarship will be a student enrolled in off-campus programs, from Southeast Michigan with a minimum GPA of 3.0, and who can demonstrate financial need. Preference will be given to a single parent.

**Wallace Parker Scholarship**
Converted in 1995 from a loan fund established in 1963 to commemorate Wallace C. Parker who served CMU as a coach and director of athletics during the early years of the university's development and for his continued interest throughout his lifetime. Annual spendable investment income will be awarded to a CMU health, physical education and recreation student. Application may be made through the Department of Physical Education and Sport.

**Col. Harold L. Patrick Endowed Scholarship**
Established in 2007 by Col. Harold L. Patrick '57. Income from the endowment will support a renewable scholarship for a full time undergraduate student that graduated from Mancelona High School with a minimum GPA of 3.0.

**The Evelyn Hill Pender Memorial Endowed Scholarship**
Established in 2002 by Paul Pender in honor of his wife Evelyn Hill Pender '48, former teacher. Proceeds from the endowment will be used to establish a scholarship for a graduate student enrolled in the Department of Communication Disorders within the Herbert H. and Grace A. Dow College of Health Professions, and who has a record of academic and clinical excellence. Preference will be given to a student with financial need.

**Jacques E. and Helen M. Baer Perry Scholarship**
Established in 1988 by Jacques E. Perry, '49, and Helen M. Baer Perry, '50, for a junior or senior majoring in foreign language who has a 3.0 or higher GPA.

**Phi Kappa Tau Scholarship**
Established is 1994 by CMU Phi Kappa Tau alumni for sophomore, junior or senior Phi Kappa Tau members who have a minimum GPA of 2.5. Applications can be made by March 1 each year through Carlin Alumni House, Central Michigan University, Mt. Pleasant, MI 48859.

**Joseph K. Piasecki Academic Excellence Scholarship**
Established in 1994 by family and friends in memory of Joseph Piasecki, CMU '68, who died tragically while on the job as a superintendent of the Chelsea School District. The award will be given each semester to an undergraduate Sigma Tau Gamma fraternity member achieving the highest GPA. Piasecki was a member of Sigma Tau Gamma.

**Louise A. Plachta Endowed Award**
Established in 2005 by Dr. Leonard E. and Louise A. Plachta '92. Income from the endowment will support a scholarship for entering freshman majoring in music with a minimum GPA of 3.0 and a successful audition. The award is renewable at the discretion of the School of Music.

**Ethel M. Polhemus Scholarship**
Established in 1987 through the estate of Ethel M. Polhemus for a student from Greenville High School, MI.
Pontiac Senior High School Scholarship
Earnings provide a scholarship which approximate regular fees for a Pontiac Senior High School student to attend CMU for one to four years.

Dee Pommerenek Women’s Basketball Team Player Award
Established in 2002 by Dee Pommerenek ’63, former CMU women’s basketball player. Proceeds from the endowment will be used to support the women’s basketball annual budget through the Chippewa Club Athletic Endowment. An annual award will be given to the individual who exemplifies positive attitude, teamwork, and a willingness to contribute to the maximum effort regardless of ability, individual statistics, or class year.

Dr. Glen D. Porterfield Scholarship
Converted in 1988 from the loan fund established in 1967 by family and friends in memory of Glen D. Porterfield, a 1919 graduate and dedicated Houghton Lake, MI, physician. The scholarship is available to a junior or senior based on financial need and academic achievement.

Helen Vowles Porterfield Scholarship
Established in 1984 to provide tuition and fees by family and friends in memory of Helen Vowles Porterfield (Mrs. Glen D. Porterfield), former Mt. Pleasant native who received her CMU Life Certificate in 1919 and B.A. and M.A. degrees from the University of Michigan. During the 1920’s she taught French and Latin at Mt. Pleasant High School and at Central during summer sessions when Anna M. Barnard was foreign language department chairperson. From 1932 to 1943 she served as social director of Ronan Hall, later moving to Sloan Hall. Helen served as assistant dean of women under Bertha Ronan and taught personnel classes to freshmen. For many years a counselor and friend of students, she never lost her interest in young people.

Roderick A. Powers Scholarship
Established in 1986 by Julia E. Powers in memory of her husband Rod who taught government and economics at Hart High School, MI for 19 years. His love of education will forever be a legacy to his former students. This legacy will also continue in the form of a scholarship to Rod’s alma mater, CMU.

G. William Quine Scholarship
Established in 1982 by G. William Quine, ’57, for a Michigan resident student in liberal arts without regard to financial need or academic standing.

Millard Quinlan Scholarship
Established in 1999 in memory of Millard J. Quinlan, a teacher-principal in the Newberry school system, for a education major with preference extended to students from the Upper Peninsula in Chippewa, Luce or Mackinaw counties with a minimum GPA with preference extended to students from the Upper Peninsula in Chippewa, Luce or Mackinaw counties. The scholarship is available to a junior or senior based on financial need and academic achievement.

Lawrence D. Rahilly Scholarship
Established in 1981 by family and friends in memory of Lawrence D. Rahilly, charter member of the CMU Board of Trustees, for a merit and need-based scholarship for a senior in business administration.

Gilbert Rau Oratory Award
Established in 1982 for three students chosen as the best speakers in the annual Gilbert Rau Oratory Contest.

Department of Recreation, Parks and Leisure Services Administration Scholarship
Established in 1988 by the Department of Recreation, Parks and Leisure Services Administration for their majors in the name of G. Patrick Doyle, Donald F. Lutz, Agnes Rainwater and the department.

Michael R. and Carol Reno Scholarship for Academic Excellence
Established in 2007 by Michael R. ’73 and Carol Reno. Income from the endowment will support a renewable award for a resident of Huron County who is a current student or graduate of a Huron County high school. Must also indicate a desire to major in an academic program within the College of Humanities and Social & Behavioral Sciences, with a GPA of 3.5 and a minimum composite ACT of 26. Contact the College of Humanities and Social & Behavioral Sciences for further information.

Paul W. and Barbara C. Richards Endowed Scholarship
Established in 2006 by Paul ’75 and Barbara Richards. Paul currently serves on CMU’s Development Board and is the owner of Superior Cadillac-GMC and Brighton Honda. Income from the endowment will support a renewable scholarship for a junior or senior business major with a minimum 3.0 GPA who can demonstrate financial need. Preference will be given to students from Livingston County. Second preference goes to students from Wayne, Oakland, Macomb or Washtenaw Counties.

Cleon C. Richtmeyer Scholarship
Dr. Richtmeyer, former dean of the College of Arts and Sciences, former chairman of the Department of Mathematics and faculty member from 1924 to 1968, bequeathed a scholarship for students majoring in mathematics on the basis of merit. Recipients are selected by a committee in the Department of Mathematics.

William H. Rivard Trombone Scholarship
Established in 1994 in honor of Professor Emeritus William H. Rivard. This scholarship is available to all undergraduate music majors who have maintained high academic standards, made positive contributions to the School of Music ensembles, and displayed an enthusiastic attitude toward studying the trombone.

Tim Roberts Country Radio Broadcasters Endowed Scholarship
Established in 2006 by the Country Radio Broadcasters in honor of Tim Roberts ’82. Income from the endowment will be used to support a scholarship for a junior or senior in broadcast and cinematic Arts. The recipient will have an active past or planned present involvement at WMHW-FM and/or other BCA radio units with a minimum GPA of 2.75 overall and 3.0 in BCA courses.

Joanne Ellis Robertson Scholarship
Established in 1993 by Pauline Ellis to commemorate daughter Joanne, ’50, for students who plan to or are working toward a degree in speech and language pathology and meet other criteria as set forth by the Department of Communication Disorders.

Joyce Rohlf’s Scholarship
Established by Mr. and Mrs. William E. Rohlf’s and Glen Rohlf’s in memory of their daughter and sister for junior or senior women who are residents of Midland, Tuscola or Saginaw counties in childhood and elementary education.

Tracey Marie Rondy Memorial Endowed Award
Established in 2006 in memory of Tracey Marie Rondy by her parents Gary and Maureen ’84 Rondy, sister Tara Rondy ’00, family and friends. Income from the endowment will support an award for a fulltime CMU student with a minimum 3.0 GPA who attended a public, private, or alternative education school in Mt. Pleasant, Shepherd, Beal City, Alma, Ashley, Breckenridge, Ithaca, or St. Louis. Preference will be given to students with a signed major in interior design and/or who worked on the vocational education house while attending the Mt. Pleasant High School Vocational/Technical Center.

Dan and Bobbie Rose Scholarship
Converted in 1995 from a loan fund established in 1973 by family, alumni and friends for Dan’s many years of service to the university and community as a teacher, coach and athletic director. Annual spendable investment income will be awarded to a CMU student who are residents of Midland, Tuscola or Saginaw counties in childhood and elementary education.

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physical education major. Application may be made through the Department of Physical Education and Sport.

**Susan Rozman-Delia Memorial Scholarship**

Established in 2003 by broadcast and cinemac arts alumni and friends wishing to honor Sue Rozman-Delia ’82. Proceeds from the endowed award will be used to support a student majoring in broadcast and cinemac arts. The recipient must have a 3.0 overall GPA and complete a BCA-sponsored internship.

**Judge Bill and Eileen Rush Endowed Scholarship**

Established in 2006 by The Honorable Bill and Eileen Rush. Income from the endowed award will support a renewable scholarship for a junior or senior student with a minimum GPA of 3.0 who is interested in pursuing a career related to law.

**Joanna M. Russ Memorial Undergraduate Research and Presentation Grant**

Established in 2004 by family and friends of Joanna M. Russ, the income from this endowment will be used to support a renewable research and presentation grant. Income may be used for expenses related to research and/or travel to present the results of the students research. Priority will be given to research related to CHARGE syndrome, but other research topics that qualify are autism, autism spectrum disorder and low incidence disabilities such as deafblindness. Recipient must possess a minimum 3.0 GPA and faculty sponsorship.

**Grace L. Ryan Scholarship**

The Grace L. Ryan Loan Fund established by alumni and friends of the university in honor of Miss Ryan’s years of service was converted to an endowment in 1992 for physical education or business majors.

**Grace Larsen Sagendorf Scholarship**

Established in 1999 in memory of Grace Larsen Sagendorf, ’39, former Greenville teacher, for an education major in good standing. Preference given to qualified students from the Greenville School System, then to students from Montcalm County, and then to any qualified student.

**Jack Saunders Jazz Award**

Established in 2002 by retired CMU Marching Band Director and Professor of Horns, Jack Saunders ’60, ’65. Proceeds from the endowed award will be used to support an award for an outstanding and dedicated junior or senior jazz musician with a positive attitude, who is enrolled in the College of Communication and Fine Arts and the School of Music, and has been accepted for full music candidacy or full-time graduate student status.

**Kenneth W. and Margaret Cuff Saunders Scholarship**

Established in 1989 by family and friends for a junior, senior or graduate student with a 3.5 or higher GPA. Preference is given to English, journalism or physics majors; the scholarship is renewable provided a 3.0 or higher GPA is maintained.

**Yda Lou Schultz Scholarship**

Established for sophomore, junior or senior students in music education by sisters Frances Steel and Alma Miner and friends in memory of Yda’s long devoted service to CMU and valuable contributions in the fields of elementary music education, special education, Kodaly and Orff.

**Scribner Family Scholarship**

Established in 2006 by Charles ’60 and Gerry Scribner. Income from the endowed award will support a renewable scholarship in the College of Business Administration for students who can demonstrate financial need and have a minimum GPA of 3.0. Preference will be given to students who graduated from either Mount Pleasant High School or Cadillac High School.

**Lester H. and Jack D. Serier Endowed Memorial Scholarship**

Established in 2001 by Maryann Serier in memory of her husband Lester Serier, a former CMU mathematics professor and son, Jack Serier ’64. Proceeds from the endowed award will be used to support a scholarship for a Michigan resident with junior or senior status majoring in mathematics with a minimum 3.0 GPA. Preference shall be given to students who demonstrate financial need.

**Freddie Link Simonds Scholarship**

Established in 1987 to honor Freddie Link Simonds. Income from the endowed award will support a scholarship for a junior or senior with a minimum GPA of 3.0 and a demonstrated commitment to life management education. The student must intend to pursue graduate study in education in order to prepare and qualify to teach life management education at the college level or be pursuing a secondary teaching certificate to teach life management in high school.

**John B. Slater Scholarship**

Established through the estate of John B. Slater, former professor emeritus, Department of Industrial Engineering and Technology, for a Department of Engineering and Technology junior or senior student.

**Irvine N. Smith Scholarship**

Established in 1978 by Nancy Page Smith, family, and friends in memory of Irvine N. Smith, a member of the faculty for eight years and director of university theater from 1974 through 1976, for a freshman, sophomore or junior student as an incentive award in acting and/or directing.

**Johnnie D. Smith Memorial Scholarship**

Established in 2003 by the Association of Faculty and Staff of Color to honor Johnnie D. Smith ’86, CMU professor of African-American history and constitutional history of the United States. Proceeds from the endowed award will support two students. One student will be an incoming freshman from Saginaw, Midland, or Mount Pleasant. The second will be a current CMU student of sophomore standing or greater. Recipients must have a minimum 2.5 GPA upon applying. Both recipients must be committed to the advancement of minorities in American society; preference will be given to applicants studying or conducting research in the fields of history and/or African-American history.

**M. L. Smith Scholarship**

Established in 1955 by the Appleblossom Club in honor of Dr. M. L. Smith, former director of field services and head of the rural education department, for a student accepted into the teacher education program with a child development minor. The scholarship may be renewed provided a 3.0 or higher GPA is maintained. Application may be made to the Department of Teacher Education and Professional Development.

**Woodward C. Smith Scholarship**

Converted in 1995 from a loan fund established in 1967 to recognize Woodward C. Smith for his life-long devotion to education at all levels upon his retirement as CMU vice president. Annual spendable investment income will be awarded to CMU students based on financial need as determined by the Office of Scholarships and Financial Aid.

**Paul G. Smuts Endowed Scholarship Fund**

Established in 2003 by Paul ’62 and Sandy ’61 (Moore) Smuts. Paul retired from DaimlerChrysler in 2002 as vice president of human resources operations and facilities management. This renewable scholarship will support a student enrolled in the College of Business Administration who participates in extracurricular activities, demonstrates financial need, and has a minimum GPA of 3.0.

**Sandy (Moore) Smuts Endowed Scholarship Fund**

Established in 2006 by Paul ’62 and Sandy ’61 (Moore) Smuts. Income from the endowed award will support a scholarship for a student enrolled in the College of Education and Human Services with a major in elementary education who demonstrates financial need and has a minimum GPA of 3.0.
Paul Spece Award
Established in 1999 in memory of CMU accounting professor Paul Spece, for a junior or senior accounting major.

Richard and Karen St. Andre Endowed Award
Established in 2004 by Dr. Richard ’86 and Karen St. Andre. Rich is the associate dean of the College of Science and Technology at Central Michigan University. Income from this endowment will be used to support a renewable scholarship for a junior or senior student enrolled in the College of Science and Technology’s Department of Mathematics who is majoring in math and has a minor in CPS or information technology.

Gilbert and Kay Starks Endowed Scholarship
Established in 2006 by Drs. Gilbert and Kay Starks. Income from the endowment will support a scholarship for a sophomore, junior, or senior enrolled in a class on Beaver Island. The student will be enrolled in the College of Science and Technology majoring in biology and seeking secondary education certification with a minimum GPA of 3.0.

Dr. Glenn and Kathryn Starner Homecoming Leadership Award
Established in 1998 by family and friends in recognition of the tireless hours Dr. Starner contributed to establishing a successful homecoming program and developing student leaders at CMU. The awards will be granted to students who are elected by the CMU student body to represent them as the Homecoming Gold Ambassadors.

Martin Steinbis Endowed Scholarship in Science and Technology
Established in 2006 by Martin Steinbis ’75. Income from this endowment will be used to support a freshman enrolled in the College of Science and Technology with a minimum GPA of 3.5, preference given to students from rural areas.

Stephenson Engineering Scholarship
Established in 1985 by Jo Stephenson and David Schock in honor of Jo’s parents, Betty and Jack Stephenson, for a student pursuing an engineering technology curriculum.

John W. Stressman, Jr. Scholarship
Established by family and friends in memory of John W. Stressman, Jr., former director of financial aid, for a student in the College of Business Administration. The scholarship may be renewed.

Student Alumni Association Scholarship
This nonrenewable scholarship was established in 1981 through efforts of the university’s Student Foundation for a full-time junior or senior active in student organizations, a member of the Student Alumni Association, a United States citizen, and who has a minimum GPA of 3.0. Applications, accompanied by a letter of recommendation from a faculty member, should be sent to CMU’s Carlin Alumni House.

Student Army Training Corps Scholarship
The Student Army Training Corps (SATC) Loan Fund established in December 1971 was converted to an endowment in 1988. The SATC was a U.S. Army organization stationed on campus during World War I. Earnings provide an academic achievement award with preference given to children or grandchildren of any United States war veteran.

Leonard and Betty Summers Endowed Award
Established in 2007 by R. Kim Summers ’78, in honor of his parents, Leonard and Betty Summers. Income from the endowment will support a renewable award for a student enrolled in the College of Science and Technology and Department of Computer Science. Student will have a minimum GPA of 3.0 and preference will be given to those from Otsego County who demonstrate financial need and are active in community service.

Mark and Michelle Szymczak Endowed Scholarship
Established in 2007 by Mark ’91 and Michelle Szymczak ’91, ’97. Income from the endowment will support an award for a student enrolled in the College of Business Administration. Preference will be given to students who are studying SAP and have a strong record of leadership on campus. Preference will also be given to students in the Department of Business Information Systems or School of Accounting. Applicant must be a junior or senior and a have a minimum GPA of 3.0.

Target Corporation Endowed Student Award
Established in 2001 by the Target Corporation. Proceeds from the endowment will be used to establish an award for full-time students who have demonstrated financial need and maintain a 3.0 GPA.

Ethel Nellie Taylor Scholarship
Established through the will of Ethel N. Taylor, ’10, for students selected by Scholarships and Financial Aid.

Mae Teeters History Award
Established by V. Mae Teeters and her family in 1985 in appreciation of the opportunity to further her education and to encourage the pursuit of excellence in the study of history. Mrs. Teeters earned a B.A. in 1972 and M.A. in History in 1985 at age 87. Mae Teeters was a prime example of life-long learning, dedicated community service and an inspiration to those who knew her. The endowment will recognize similar people who have a quest for life’s knowledge and historical learning and provide an award to an outstanding history student.

Telephone Pioneers of America, Great Lakes Chapter 90 Scholarship
Established in 1995 for Michigan resident, junior, senior or graduate students within teacher education with a cumulative GPA of 3.0 or higher and proven community service. The scholarship is based on full-time enrollment and renewable based on reapplication. First preference will be given to relatives of telephone industry employees or retirees. Application may be made through the Department of Teacher Education and Professional Development.

Harold E. and Nancy N. Telfer Scholarship
Established in 1997 in memory of Dr. Harold Telfer. Dr. Telfer was a professor and department chair in Teacher Education and Professional Development. Nancy is a retired educator from the Mount Pleasant Public Schools. The scholarship is available for juniors or seniors admitted to the Teacher Education Program with an overall GPA of 3.0 or higher and demonstrated financial need.

Steven J. Thatcher Scholarship
Established in 1989 through the estate of Steven J. Thatcher, ’70, for an undergraduate with preference given to students from high schools in Ionia County.

Thavenet Study Abroad Award
Established in 1999 by Dennis Thavenet, who served as professor in the Department of History from 1967 to 1997, for a junior or senior history student studying abroad, with some preference for study in the Netherlands.

Thavenet Study Abroad Award/History Department
Established in 1999 by colleagues in honor of Dennis Thavenet, who served as professor in the Department of History from 1967 to 1997, for a junior or senior history student studying abroad, with some preference given for study in the Netherlands.
Charles Warren and Denzil Slentz Thornthwaite Scholarship
Established in 1962 as the Denzil Slentz Thornthwaite Memorial Fund by C. Warren Thornthwaite in honor of his wife. Their daughters later made the scholarship a memorial to their parents, both of whom were alumni, for students showing outstanding ability in the fields of climatology, meteorology and geography as well as financial need.

Mike and Beth Tierney Endowed Scholarship
Established in 2007 by Michael ’77 and Elizabeth Tierney ’77. Income from the endowment will support a renewable award for a student from southeast Michigan with a minimum GPA of 3.0 and demonstrated involvement in leadership activities. Preference will be given to students pursuing a major in the College of Business Administration or a major in communication disorders in The Herbert H. and Grace A. Dow College of Health Professions.

Jean and James Townsend University Theatre Endowment Fund
Established in 2002 by Jean Townsend, Dow Chemical research leader, and James Townsend, retired manager, university relations and recruiting, The Dow Chemical Company. Proceeds from the endowment will be used to provide discretionary resources for the University Theatre program, including the support of student scholarships/financial aid, theatre production equipment and guest artists, in the College of Communication and Fine Arts, Department of Communication and Dramatic Arts.

Tri-Cities Alumni Chapter Endowed Scholarship
Established in 2004 by members of the Tri-Cities Alumni Chapter of Central Michigan University. Income from this endowment will be used to support a scholarship for an incoming freshman who can demonstrate financial need from Midland, Bay or Saginaw counties.

Charlotte W. Trout Award in Human Environmental Studies
Established in 1979 by Mr. and Mrs. George J. (Elinor Trout) Verville for a junior or senior majoring in Human Environmental Studies who gives promise of becoming outstanding in the field and who is dedicated to preservation of the family. Selection is made by members of the department.

Lem Tucker Journalism Scholarship
Established in 1997 to honor the late Lemuel Tucker, an African American and CMU alumnus who made an enormous contribution to journalism, to promote the participation and success of minorities in print and electronic media. Scholarship candidates must be a senior in high school with a cumulative GPA of 3.0 or better, and have a minimum 18 on the ACT or minimum of 850 on the SAT. Preference is given to Michigan residents.

Robert D. Ullom Baseball Endowed Scholarship
Established in 2004 by Robert Ullom ’57. Income from this endowment will support the CMU Baseball program with a renewable scholarship and/or operational budget. Preference will be given to a CMU baseball student athlete, of at least sophomore status and who possesses a minimum 3.0 GPA.

Katherine Ardis Ux Endowed Award in Art
Established in 2001 by Evart and Dorothy Ardis in honor of his sister Katherine Ardis Ux, former art department faculty member and accomplished artist. Proceeds from the endowment will be used to support one annual award for a senior majoring in art and who intends to pursue further study or conduct research in the field of art in a master’s program or other type of structured art program.

William E. Valle Design and Technical Theatre Award
Established in 2005 by William E. Valle and friends. Bill is a retired professor who taught scenery design, lighting design, and technical theatre at CMU for 35 years. Income from the renewable endowment will support an award for a student who participates and has an interest in the study of design or technical theatre, has demonstrated promise in the field of scenery design, lighting design, or technical theatre and has a minimum GPA of 2.0 on a 4.0 scale.

Ernest E. and Phyllis L. Vegter Scholarship
Established in 1984 by family and friends of the late Ernest E. Vegter for graduating seniors of Bay City, MI, public high schools who desire to pursue a career in teaching secondary education.

Velsor/Prasad Endowed Scholarship
Established in 2005 by Dr. S. Benjamin Prasad, a retired CMU professor of management and law. Income from this endowment will support a renewable scholarship(s) for a junior or senior who is enrolled in the College of Business Administration majoring in international business, has a minimum GPA of 3.25, and is a citizen of the United States.

Voigtman Family Endowed Scholarship
Established in 2006 by Jon ’84 and Terri ’85 Voigtman. Income from the endowment will support a renewable scholarship for a junior or senior enrolled in the College of Business Administration with a minimum 3.0 GPA. The recipient must be a Michigan resident and demonstrate financial need.

Wakely Associates Teacher Education Scholarship
Established in 2004 by Wakely Associates, Inc. of Mount Pleasant, Michigan. Income from this endowment will support a renewable scholarship for a junior student enrolled in the teacher education program who can demonstrate financial need. Preference will be given to students graduating from a specific list of Michigan schools. The list may be obtained from the Office of Scholarships and Financial Aid.

John E. Warriner Scholarship
Established in 1987 through the estate gift of John Edward Warriner, author of Warriner’s Handbook of English and a six volume series titled English Grammar and Composition, for undergraduate and graduate students majoring in the humanities and social sciences. John was the son of Eugene C. Warriner, former CMU president.

War Years Reunion Endowed Scholarship
Established in 2001 by generous contributions from Central Michigan University classes of 1946 – 1951 in honor of World War II Veterans. Proceeds from the endowment will be used to support a scholarship for a student who is a United States citizen with preference given to those students who can substantiate lineage to a World War II Veteran. Students must have a demonstrated financial need by university standards and solid academic standing.

Michael Waske Scholarship
Established by Mrs. Michael Waske (Dorothy Wright, ’51) in memory of husband, Michael, ’51, for students in need of financial aid with preference given to students from the Marlette and Sandusky areas.

Ruth M. M. Wesley Endowed Scholarship
Established in 2000 by Dr. Sydney Walston and his wife Mary Walston, both professors in the Department of Health Promotion and Rehabilitation, for a junior or senior, 2.5 GPA, majoring in school or public health education, to support learning through attendance and participation at state, national or international professional conferences.

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Ruth M. M. Wesley Scholarship
Established in 1998 by Judith Mynsberge in memory of her aunt, Ruth M. M. Wesley, who graduated from Central State Teachers College with a “lifetime” certificate in 1933. This scholarship is available for students from the Bay County area with financial need who are pursuing a teaching career.

George R. Wheeler Scholarship
The loan fund established in honor of Mr. Wheeler’s career as chairperson of the Department of Conservation and Agriculture from 1947 to 1960 was converted to an endowment in 1993 for a student pursuing studies in outdoor environmental education, ecology or conservation.
Edward H. Whitmore and Stephen H. Whitmore Mathematics Scholarship

Established by family and friends to commemorate the lives of Edward Hugh Whitmore and Stephen Harper Whitmore for senior students who have earned a 3.6 or higher in their mathematics major. Dr. Edward Whitmore was a mathematics professor between 1965 and his retirement from CMU in December, 1987. He served as department chairman from 1965 to 1974 and from 1976 to 1982. Stephen Whitmore, son of Edward, was a partner with the New York law firm of Berlack, Israels, and Liberman. He specialized in the areas of corporate finance and securities law.

Craig Whitney Scholarship

Established through the estate of Mrs. Roxanna M. Whitney, widow of Clayton A. Whitney, '09, and former chairman of the geography department of State Teachers College at LaCrosse, WI.

Helen A. and W. Lyle Willhite Scholarship

Established in 1986 by Mrs. W. Lyle Willhite, daughter Maryhelen, colleagues and friends in memory of W. Lyle Willhite, first dean (1960 to 1976) of what is now the College of Business Administration and a professor of finance.

Louise A. Williams and Jane McNamara Endowed Award

Established in 2003 by Jane McNamara and Louise A. Williams, retired physical education and sport professors. Proceeds from the endowed award will be used to support a student with junior or senior class standing who has declared a major in a health professions area and who has a GPA of 3.5 or higher. First preference will be given to a student who is a resident of Isabella County.

Paul I. Willwerth Brass Endowed Award

Established in 2002 by Phi Mu Alpha, a music academic group, and Patricia G. Willwerth, in honor of her husband, Paul I. Willwerth, former faculty member. Proceeds from the endowment will be used to support a scholarship for an undergraduate student enrolled in the School of Music within the College of Communication and Fine Arts pursuing a bachelor’s in music or music education degree. The recipient must have reached 300 level music candidacy and study a brass instrument with a minimum 3.5 GPA.

Lillian M. Winsor Scholarship

Established in 1977 by a friend of CMU for students within the College of Business Administration who are gainfully employed during the academic year. The scholarship may be renewed provided the student maintains a satisfactory academic average and continues to be employed.

Corey Paul Woiteshek Beaver Island Endowed Award

Established in 2007 by friends and family in memory of Cory Paul Woiteshek '97. Income from the endowment will support a junior or senior biology major with a minimum GPA of 3.0. The recipient will be enrolled in at least one class at the CMU Biological Station on Beaver Island and provide a paragraph on their interests and goals related to their love of nature.

Jim and Carol Wojcik Endowed Journalism Scholarship

Established in 2005 by James J. '65, '68 and Carol L. Wojcik ’68, ’89 and friends. Jim was employed by CMU as the director of student publications before his retirement. He is a current member of the College of Communication and Fine Arts Capital Campaign Committee and a former member of the Journalism Alumni Advisory Board. Carol retired from CMU in 2005, as the director of student disability services. Income from the endowment will support a renewable scholarship for a student of junior or higher standing majoring in journalism, with a minimum GPA of 2.5. The recipient shall participate as a student staff member of Central Michigan Life and shall have an interest in pursuing a career in journalism.

Harvey E. Wood Education Award

Established in 2000 in memory of Harvey E. Wood ‘51, former teacher and principal at Holt High School. The award is for a Holt graduate with a minimum 3.25 GPA, an interest in education, and who demonstrates financial need by university standards. Submission of a one-page biographical letter of application indicating involvement in extracurricular activities is required.

Kenneth Wright Physics Scholarship

Established in 1998 by the sons of Kenneth Wright, ‘34, a CMU physics teacher for over 30 years, for a third-year student with a declared major in physics, a minimum 3.5 GPA in classes offered by the physics department, and a minimum 2.5 GPA overall.

Wilbert Wright Endowed Memorial Award

Established in 2001 by Geraldine Wright ‘77 in memory of her husband Wilbert Wright, Ph.D., former member of the CMU Counseling Center staff. Proceeds from the endowment will be used to establish an award for full-time, first-generation college students with junior or senior status majoring in psychology with a minimum 3.0 GPA.

Daniel E. and Mildred G. Wujek Award

Established in 1999 by CMU biology professor Daniel Wujek ’61 and his wife Millie ’89, for biology graduate students.

Harold W. and Dorothy V. Zeoli Computer Science Award

Established in 1988 by family, colleagues and members of the Department of Computer Science in memory of Dr. Harold Zeoli for students majoring in computer science. Dr. Zeoli was instrumental in introducing the study of computer science at CMU.

Dr. Habib A. Zuberi Endowed Scholarship

Established in 2000 by Dr. Habib Zuberi, Ph.D., professor emeritus, and Rosemary Zuberi. Proceeds from the endowment will be used to establish a scholarship for a junior, senior or graduate student enrolled in the College of Business Administration and majoring in economics with a 3.3 minimum GPA.
First-Year Experience
fye@cmich.edu;
http://www.fye.cmich.edu

Overview of FYE 101.
The First-Year Experience offers an extended orientation to the Central Michigan University environment. FYE 101 helps students to learn about the value of a liberal arts education and to understand the academic expectations of the university. FYE 101 is designed to improve the educational experience for first-year students by encouraging greater involvement in all that the university has to offer. Students are introduced to the numerous academic and co-curricular opportunities available during their undergraduate experience.

The primary goals of FYE 101 are to 1) Increase understanding of higher education processes and principles that guide student development; 2) Empower students to promote their own academic and personal growth and 3) Engage students in the diverse intellectual and civic endeavors within the university and larger community.

Benefits of FYE 101 participation
• Institutions report higher levels of retention and GPAs among students who take first-year seminars.
• Students who enroll in first-year seminars are more likely to stay in school and ultimately graduate.
• Assessments at CMU show that students enrolled in FYE 101 have a more positive college experience than the first-year students who did not participate in the program.
• FYE 101 students are more likely to feel confident, have clear educational goals, know campus resources, feel more comfortable with diversity, and have the skills to solve class or academic problems.
• Most students indicate significant benefits of enrolling in FYE 101, such as a greater value to the practical outcomes of the course and the personal empowerment and growth opportunities created throughout the course.
• Research shows that students who take a first-year experience course are more likely to understand the meaning of a university education, feel connected to the learning community, and continue on to their sophomore year.

Structure of FYE 101
Students enrolled in this one-credit-hour course meet weekly with other first-year students (no more than 25 students per section) for the first eight weeks of the semester. Students engage in discussions, inquiries, and explorations related to higher education, student development and strategies for both a successful and meaningful college experience. Concepts are introduced through active learning strategies and experiential explorations of services, programs, ideas and resources.

Instructors Who Teach FYE 101
Highly qualified CMU instructors teach each student enrolling in FYE 101. FYE 101 faculty are specifically recruited from various university programs based on their commitment to helping students. These faculty members are experienced educators with successful records of quality teaching and a genuine commitment to each student’s success.

FYE 101 offers students the opportunity to interact with upper-class students. Each student mentor serves as a resource to the first-year student by assisting with both academic and experiential activities outside of class. Previous FYE students have indicated that upperclass student mentors were key factors in creating successful transition to Central Michigan University.

Enrollment in FYE 101
FYE 101 is open only to first-year students. Students may register for a section of FYE 101 during Orientation or they may use the online registration system to add FYE 101 to their schedule. First-year students are encouraged to consider taking FYE 101. Research has shown that FYE students are more successful in other academic classes, are more likely to continue their college education, have a greater self awareness and are better equipped to take advantage of academic resources and services. This class is especially helpful for any student who may have questions about how they will be successful—both academically and socially—at CMU.

FYE 301 Mentor to the First-Year Experience
Overview of FYE 301 - The Mentor to the First-Year Experience course offers students in their sophomore, junior and senior years the opportunity to explore theoretical components of student development. The course is appropriate for students who have practical experience with the university environment, understand the value of a liberal arts education, are familiar with career guidance resources and have a demonstrated pattern of academic success. Students enrolling in this three-credit course meet prior to the start of the semester and weekly for the first ten weeks of the semester.

Special Requirements for the Course - Students are expected to attend both the FYE 301 class and their assigned FYE 101 class. Additionally, students are expected to make themselves available to meet with their FYE 101 instructor and students outside of class.

Benefits of the Course - By the completion of this course, students are able to 1) Develop and lead activities that contribute to a positive classroom community in FYE 101; 2) Articulate a theory of college student development and apply it to first-year students 3) Implement appropriate responses to first-year students who engage in problem behaviors that interfere with a successful transition to college (e.g. alcohol, drug use, depression, eating disorders, loneliness, etc.); 4) Introduce and model positive decision-making strategies to first-year students; 5) Demonstrate effective mentoring techniques such as active listening, coaching, advising, and providing feedback to first-year students; 6) Identify different mentors and their role in the students’ own personal, academic and professional development; 7) Collaborate with a university faculty member; 8) Contribute to the FYE 101 program, as documented by the development of a project that addresses an identified program or student need; 9) Define personal learning goals for their experience as FYE mentors and develop an action plan for achieving these goals; and 10) Demonstrate how the experience as FYE mentors supported their own personal development.
Honors

Dr. James P. Hill, Director
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Central Michigan University
http://www.cmich.edu/honors/

"Far from being a mechanism for elitist self-aggrandizement, honors is above all an open invitation to explore and to inquire fearlessly with like-minded students and faculty and, in the process, to develop a love of excellence and to reach new and profoundly satisfying levels of scholarly achievement and self-understanding."

- Richard Cummings, Ph.D., Former President of the National Collegiate Honors Council

Since 1961 the Honors Program has challenged CMU’s brightest, most talented, highly motivated, and creative students both in and outside of the classroom while pursuing an enriched program of study. Honors study at all levels is distinct from traditional class work in that it is generally more in-depth, creative, and self-initiated. A primary aim of the Honors Program is to provide a qualitatively unique learning experience through classroom and individualized study opportunities. By using innovative instructional techniques and an emphasis on self-discovery, Honors professors are able to provide a learning environment which presents a deeper and broader understanding of a subject, resulting in a synthesis of many relevant issues.

Benefits of Honors Study

In addition to a unique learning environment, there are many tangible benefits of Honors study:

- Faculty and Alumni mentoring.
- Academic Planning Document that helps map out all courses you will need each semester to graduate from Central Michigan University.
- Eligibility for Honors scholarships and awards.
- Undergraduate research opportunities.
- Small class size, limited to 20 students in Honors sections.
- Recognition of achievement through transcript designation “Graduated in the Honors Program” and commencement program notation.
- Eligibility to live in Larzelere Hall and Trout Hall, the designated Honors residence halls and communities.
- Individualized academic advising through the Honors Program Academic Advisors.
- Eligibility to enroll in graduate courses (director of Honors Program will review request and notify student and Registrar’s Office of decision).
- Use of Honors Course Offering Schedule which lists descriptions of all honors classes being offered for the upcoming semester.
- Opportunity to participate in the Honors Outreach Network (HON) student organization.
- Participation in a variety of social, cultural, and international activities.
- Priority registration.

Honors Study Options

Honors study is flexible in nature and can fit into any degree, major, or minor. Several options exist through which students can earn Honors credits:

- Honors sections of many classes offered both Fall and Spring semesters.
- Honors Contracts which allow a student to take some CMU classes for Honors credit through an arrangement between the student and the instructor, with the approval of the Honors Director.
- An Honors Independent Study of a specific topic under the direction of a faculty member, requiring more in-depth investigation, empirical research, or expanded coverage.
- A Senior Project, mentored by a faculty member, in which the student synthesizes many areas of previous study, conducts original research, or engages in a creative endeavor.
- An Honors Colloquium which offers a first-year introduction to the Honors Program.

Honors Program Requirements

There are a number of requirements which must be met by all Honors students. These requirements are arranged in Protocols or programs of study. There are several different Protocols available, each of which is described in detail in the Honors Student Handbook.

Admission and Completion of Honors Studies

The university invites all high ability students to participate in the Honors Program.

- Outstanding high school seniors and transfer students applying to Central Michigan University with a cumulative grade point average of 3.6 are encouraged to apply. High school students with a composite ACT score of below 25 will be required to have a 3.75 GPA. All applicants must also provide a writing sample.

- If an applicant fails to meet either the GPA or ACT Honors Program admission requirements, an applicant may petition for an exception to the admission standards, providing substantial evidence of exceptional academic promise to accompany the student’s application. Applications submitted through this exception process will be reviewed by an Honors Program admission review committee on a case by case basis.

- Upon admission to the university and the Honors Program, students will be encouraged to participate in Honors study by enrolling in Honors sections. In addition, they are invited to join the Honors community by residing in Larzelere Hall or Trout Hall.

- Undergraduate students currently enrolled at CMU and who achieve a cumulative grade point average of 3.5 are invited to become active in the Honors Program.

- In order to remain active in the Honors Program and Graduate in the Honors Program students must maintain a cumulative grade point average of 3.25 and earn a grade of at least “B-” in all Honors courses, Honors Contracts, Honors Independent Study, or Senior Project taken for credit.

Centralis Program

The Centralis Scholarship Program provides merit-based awards to outstanding entering freshmen. The University’s Honors Council has developed specific plans of study, called protocols, for the two types of awards: Scholar and Gold. All Centralis award recipients are automatically admitted to the Honors Program. Additional information and award specifics are delineated in the Financial Aid section of this Bulletin under the Centralis Scholarship Program.
Leadership Institute

Dykstra J. Heinze, Director

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Introduction

The Leadership Institute functions as the coordinating body for the university’s present and future leadership-related activities and programming. It is charged with the development and delivery of programs to middle school, high school and university level students, and to mid-level managers in the private, public, education and service sectors. Participants prepare for leadership positions and service on their campuses or in their professions and communities through a careful integration of educational options and experiential challenges.

The Institute oversees a comprehensive, four-year, student program that focuses on leadership, training and development. In coordination with Residence Life, Student Life, and Minority Student Services, the Institute offers leadership programs and opportunities for students at different levels of leadership development. Leadership development is enhanced through academic courses, workshops, seminars, conferences, service learning and volunteerism. In addition, the Leadership Institute administers the Leader Advancement Scholarship (LAS) protocol.

Leader Advancement Scholarship (LAS) Protocol

Recipients of the Leader Advancement Scholarships follow a comprehensive four-year leadership development protocol. During the first two years, students will be enrolled in leadership-tailored classes and engaged in a variety of activities that will provide them with the foundations necessary to assume positions of responsibility during their last two years. The protocol consists of academic offerings (courses) and experiential opportunities.

Freshman Year. Courses will focus on human and social behavior, interpersonal and communication skills, and leadership development.

Leadership experiences will include involvement in a student organization, attendance at leadership lectures, and participation in a leadership seminar or workshop. Participants will also be active in a LAS committee and volunteer for community service.

Sophomore Year. Students will take courses in social sciences, ethics, interpersonal communication, and social and political issues.

Students will be active in a LAS committee, plan an activity or event in a leadership capacity, attend designated leadership activities, and serve as a mentor to a freshman LAS recipient.

Experiences also will include being involved in two student organizations, holding a leadership position in one, and continuing with a community service project or activity.

Junior Year. Class time is reserved for concentrating on the student’s chosen major and minor programs. The student will be a member of at least one student organization, hold a leadership position on a university committee, serve on a university academic committee, and continue involvement in a community service project. The participant also will attend leadership activities and assume a committee position in the LAS.

Senior Year. While the student works to complete his or her major and minor coursework, leadership experiences will include ongoing community service, involvement in two student organizations with a leadership position in one, serving as a member of a university committee, chairing a LAS committee, attending leadership activities, and planning a leadership activity for a community or student organization. Ultimately, the student will have the opportunity to “shadow” a community leader or participate in an internship.

McNair Scholars Program

Lynn Curry, Director

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www.mcnair.cmich.edu

Background. The McNair Scholars Program prepares undergraduate participants for doctoral study through involvement in research and other scholarly activities. McNair scholars are from disadvantaged backgrounds and demonstrate strong academic potential. Funded by the U.S. Department of Education and named after the late Dr. Ronald E. McNair, the goal of the program is to increase attainment of the Ph.D. by students from underrepresented segments of society.

Eligibility. Students are eligible to become McNair scholars if they are seriously interested in pursuing graduate study (specifically a Ph.D.), U.S. citizens or permanent residents, full-time students at CMU with a minimum GPA of 2.8, at the junior level (at least 56 completed credits when the program begins), and are low-income and first-generation college students and/or members of a population underrepresented in graduate education (typically African American, Native American or Hispanic).

Activities. New scholars (spring and summer) identify a faculty research mentor, develop a research proposal, investigate graduate programs of interest, prepare to take the Graduate Record Exam (GRE), conduct supervised research, write a research report, attend a graduate school training camp, and complete the Summer Research Institute (SRI). Continuing scholars (fall and spring) present their research at professional meetings and national conferences accompanied by their mentors or McNair staff, visit their top choice graduate school, apply for admission to graduate programs, and complete their bachelor’s degree.

Benefits. McNair scholars receive a $2400 stipend plus a living allowance during the summer. Scholars receive a travel allowance to attend undergraduate research conferences and/or professional meetings to present their research and are funded to visit potential graduate schools. They also receive GRE waivers and graduate admission fee waivers for most institutions to which they apply. Scholars participate in a research writing course and attend a GRE training class, which are also covered by the program.

To Apply. Applications are accepted throughout the year; however, a formal recruitment period occurs each fall. Feel free to stop by the office to learn more about the program and/or pick up an application.

Midland Programs

Central Michigan University has served the community of Midland, Michigan since 1955. For many years, students have been able to earn either a Master of Business Administration (MBA) or a Master of Science in Chemistry (MS) entirely in Midland. Other programs are offered in response to community need. For MBA information, call (989) 774-3150. For MS information, call (989) 774-3981.
Pre-Professional Studies

Pre-professional Studies are designed to assist students in understanding the requirements for applying to professional schools for further study. Students are urged to contact an advisor as soon as possible to discuss a plan of action for selecting courses, to gather information regarding requirements for entrance in professional schools, and to determine an appropriate undergraduate major at Central Michigan University. Advisors are listed in the current Class Schedule booklet, available from the Registrar’s Office, under Pre-Professional Advisors.

Pre-Professional Studies are NOT majors or minors at Central Michigan University. Students choose an undergraduate major to satisfy the policy requiring a signed major or a statement of an intent to major by the completion of 56 credit hours. Students should consult the chart of available majors (see Majors and Minors in the index for page number).

Pre-Architecture

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Architects plan, design and inspect the construction of all types of buildings, including private homes, offices, hospitals, laboratories, theatres, libraries, museums, schools and factories. Some architects have private practices and work alone although most architects work as members of a team under the direction of a project manager or a more experienced architect. Their work requires using design, engineering, managerial and supervisory skills to produce structures that are aesthetically pleasing, functional and safe.

There are architectural schools in Michigan. Landscape architecture is also available. Applicants should transfer after completing a maximum of two years of professional coursework at CMU. Students should apply to the architectural school by January of the second year of studies. Accredited degree programs typically include: 1) a four-year, nonprofessional baccalaureate degree followed by a two-year, master of architecture degree; 2) a five-year bachelor of architecture degree; and 3) a six-year curriculum leading to a master of architecture degree.

No special examinations are generally required for admission to the architectural schools. The architectural schools review the quality and content of all previous academic education, personal statements of professional purpose and letters of recommendation. A number of architectural schools may require an architectural related essay and/or a portfolio of art and architectural related projects.

Typically, a student will transfer to an architectural school after a maximum of two years. Coursework must include extensive art/design classes, together with two courses in English Composition, a minimum of one course each in calculus and physics. Additional courses are to be selected from the areas of: humanities, natural sciences, social sciences and introductory computer science.

A typical first semester schedule at CMU:

ART 105 (3) or ART 115 (3)
MTH 130 (4) or MTH 132 (4)
ENG 101 (3) or SDA 101 (3)
Humanities electives (6)

Pre-Dentistry

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Certain basic requirements must be fulfilled before one can be accepted to dental school. These requirements include eight hours of inorganic chemistry, eight hours of organic chemistry, eight hours of biology, eight hours of physics, and six hours of English. Some English composition must be included. All of the above science classes must include a laboratory. Dental school applicants must also score well on the Dental Admission Test. Usually three to four years of college work is needed to pass.

Students should contact the CMU pre-dentistry advisor before or during the freshman year to develop a program of study. The choice of a major is not critical, but careful planning is needed if one is to move effectively towards being a successful dental school applicant.

Pre-Engineering

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Engineers are the link between scientific discovery and practical application. They analyze problems and develop design solutions. Careers for graduates with degrees in engineering are as diverse as their interests.

Central Michigan University offers Bachelor of Science degrees in Electrical Engineering and Mechanical Engineering (see the index for the page number). For other engineering specialties, you can get a good start at CMU. The first two years of study in most engineering fields have virtually the same requirements—mathematics through calculus, basic science, and general education.

If you want to pursue a career in civil, biomedical, chemical, or any other branch of engineering, you may begin your program at CMU, then apply for transfer to another institution that offers an engineering degree in your desired specialty. CMU’s pre-engineering program has well-defined transfer guides and articulation agreements for other engineering schools in Michigan, facilitating the transition after your first two years.

It is very important that you work closely with the pre-engineering advisor in planning your courses at CMU. Correct course selection depends upon the particular engineering program to which you intend to transfer. Contact the pre-engineering advisor before registering for classes.

Prerequisites recommended for students entering any engineering program are three and one-half years of high school mathematics (two years of algebra, one year of geometry, and trigonometry), one year of high school chemistry, and one year of high school physics.

Typical first semester courses are as follows:

EGR 120 (3) Introduction to Engineering
MTH 132 (4) Calculus I
CHM 131 (4) Introduction to Chemistry I
CPS 180 (3) Principles of Computer Programming
ENG 101 (3) Freshman Composition (or Humanities elective)
Pre-Forestry
Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Students planning a forestry career normally should plan to enter a forestry school accredited by the Society of American Foresters after finishing one to two years of preparatory work at CMU. There are differences among the requirements of various forestry schools which make it impossible to give an exact course of study.

Before or during the first year at CMU, a student should personally contact the professional schools of his or her choice for admission requirements, advice on courses, and entry dates.

Students are urged to contact the CMU Pre-Forestry advisor early in their first semester to discuss aspects of the forestry career which will be useful to the student.

The student’s schedule for the first year should be chosen from the following courses:

- ENG 101 (3) and 201 (3)
- MTH 106 (3) and 107 (3) - students with credit for these courses from high school should enroll for more advanced mathematics, i.e. MTH 130.
- BIO 101 (3) OR BIO 105 (3) and 203 (3)
- SDA 101 (3)
- GEL 101 (3) and 102 (1)
- CHM 131 (4) and 132 (4)
- ECO 201 (3)

Electives: The pre-forestry advisor can recommend electives which will be most useful in meeting expressed interests or future requirements.

Pre-Law
Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Students interested in the legal profession should consult with pre-law advisors early in their university career. Since pre-law draws on numerous academic disciplines, we encourage students to consult with several advisors. Many avenues of study can lead to law school.

Students should keep in mind the words of the Pre-Law Handbook published by the Association of American Law Schools:

“The Association’s responsibility in matters of prelegal education cannot best be met by prescribing of certain courses for students planning later to study law. Such an endeavor is foreclosed by the wide range for choice of relevant pre-law preparation....”

The Association calls attention to the quality of undergraduate instruction which is fundamental to the later attainment of legal competence. That quality of education requires that pre-law students develop basic skills and insights. It thus involves education fostering:

a. comprehension and expression of words;
b. critical understanding of the human institutions and values with which the law deals;
c. creative power in thinking.

Pre-Medicine and Osteopathy
Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

This course of study is designed for a student who believes that medicine might be his or her chosen field for life. Although no specified CMU major is required, a student should plan to earn an undergraduate degree from CMU and must select a degree program from those found elsewhere in this Bulletin and successfully complete all its requirements.

The student should contact the CMU pre-medical advisor during the first semester of the freshman year to develop a program of study and to obtain information about medical schools.

Requirements
Most medical schools have the following minimum requirements of one year each in: biology (with laboratory), general chemistry (with laboratory), organic chemistry (with laboratory), physics (with laboratory), English, and behavioral science. Most require ninety semester hours of college credit, but a baccalaureate is strongly recommended.

Some schools recommend other courses. Further information about these requirements and other pertinent information concerning medical schools may be obtained from the advisor and from a book entitled Medical School Admission Requirements. The address for obtaining this book is Association of American Medical Colleges, 2450 N Street N.W., Washington, D.C., 20037-1126. The admission requirements for Osteopathic Schools can be obtained from The Association of Colleges of Osteopathic Medicine, 6110 Executive Blvd., Suite 405, Rockville, MD, 20852-3991.

Recommended Course of Study
The following abbreviated schedule indicates some of the recommended courses for a student interested in medicine. Only the first year is indicated so that all students may begin without undue delay. No later than the second semester of the first year, students should consult with the pre-medical advisor concerning appropriate coursework.

First Semester
- ENG 101 or ENG 201 (3)
- BIO 110 (4)
- CHM 131 (4) or CHM 161 (5)
- MTH 130 (4)
- Elective, see advisor (1-3)

Second Semester
- ENG 134 (3)
- BIO 218 or BIO 203 or BIO 208 (3)
- CHM 132 (4) or CHM 211 (4) [to follow CHM 161]
- MTH 132 (4)
- Elective, see advisor (1-3)

Medical College Admission Test
This test, required by most medical and osteopathic schools, is usually administered in April and August. Test application forms may be obtained from the pre-medical advisor, and it is strongly suggested that students plan on taking this test in April, just prior to the beginning of the application process.

The new MCAT Student Manual will be useful in preparation for this test and it may be obtained from the Association of American Medical Colleges, address above.

Recommendations
Each student should provide to the pre-medical advisor a completed copy of the AMCAS (medical school) or the AACOMAS (osteopathic school) forms if the letter of evaluation is to be prepared by the advisor.
Application to Medical Schools

These materials should be obtained and prepared during the summer prior to the application process, which normally occurs during the fall. Most medical schools use the American Medical College Application Service (AMCAS), while osteopathic schools use the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS). Forms for these services are obtained from the pre-medical advisor. Applications for individual medical schools must be obtained directly from the medical school. The addresses are found in the book entitled Medical School Admission Requirements.

Pre-Nursing

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

NOTE: CMU does not offer a nursing program.

CMU Pre-Nursing Advising is designed to assist students develop a plan to transfer to a college that has a nursing program. The Pre-Nursing advisor can assist with health career options and planning, choosing a nursing program, and transfer procedures. Students are urged to contact the pre-nursing advisor early in the first semester in order to plan a course of study appropriate for transfer.

The advisor can recommend CMU classes that may be acceptable to outside nursing programs. However, acceptance of classes for transfer and admission to nursing programs is selective and, therefore, completion of recommended courses at CMU does not automatically insure admission.

Recommended courses for the first semester:

ENG 101 (3)
CHM 120 (4) and CHM 127 (1)
SOC 100 or PSY 100 (3)
BIO 110 (4)
Humanities elective (3)*

*Group I of University Program

Pre-Occupational Therapy

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Students interested in pursuing a career in occupational therapy have a number of undergraduate majors they can select from at CMU that will complement a Master's degree in Occupational Therapy. Students interested in OT should contact the OT advisor early in their first semester for guidance in selecting a major and identifying prerequisite coursework required for admission to a Master's degree program at other institutions. CMU has articulation agreements with Grand Valley State University and Saginaw Valley State University. Contact the Pre-Occupational Therapy advisor for more information.

Typical courses to select from for the first semester:

ENG 101 (3)
CHM 131 (4) OR CHM 161 (5)
BIO 110 (4)
MTH 130 OR 132 (4)
Elective (2)

Pre-Optometry

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

Optometry schools require at least two years of pre-optometric study. Most students accepted by an optometry school have completed three undergraduate years and a large percentage has earned baccalaureates. Minimum requirements common to all optometry schools are one-half to one year of biology or zoology and one year each of chemistry, physics, English, and mathematics. The American Optometric Association recommends that the science courses include the laboratory and that they be the courses designed for science majors and minors. Most optometry schools require that the student complete differential calculus.

All optometry schools have additional requirements. It is, therefore, important that the prospective optometry student consult the pre-optometry advisor prior to registering for courses.

Typical courses for the first semester:

BIO 110 (4)
CHM 131 (4)
ENG 101 (3) OR 103 (3) OR 201 (3)
MTH 130 (4)
Elective (3), see advisor

Pre-Pharmacy

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

The practice of pharmacy in the United States requires the Doctor of Pharmacy (Pharm.D.) Degree plus an internship. This degree requires six years of post high school study.

In Michigan, accredited pharmacy programs are offered at Ferris State University, University of Michigan and Wayne State University. Internships can be completed at a variety of sites and are typically arranged before graduation. Each program has a different set of admission requirements.

The two year pre-pharmacy program can be completed at CMU. The program is completed at a regular college of pharmacy. Please contact the Pre-Pharmacy advisor for complete admission requirements.

Recommended courses the first semester:

• ENG 101 (3) - students who are excused from ENG 101 should take ENG 201.
• CHM 131 (4) OR CHM 161 (5)
• BIO 110 (4)
• MTH 130 OR 132 (4)
• Elective (2)

Specific pre-pharmacy coursework for the three Michigan Pharmacy schools may be obtained at [http://www.cst.cmich.edu/units/chm/Studentinfo/prepharm_advising.htm](http://www.cst.cmich.edu/units/chm/Studentinfo/prepharm_advising.htm).
Pre-Physical Therapy

Advisors: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

School of Rehabilitation and Medical Science

Central Michigan University offers a graduate program in physical therapy. For a student to become eligible to apply for entry into the Graduate Program in Physical Therapy they must complete both: 1) the requirements for their undergraduate major, and 2) a series of prerequisite courses (listed below).

The student has the option to choose from a wide variety of undergraduate majors to prepare them for the physical therapy program. Suggested undergraduate majors include Health Fitness in Preventive and Rehabilitative Programs, Biology, Neuroscience, Psychology, Child Development, Therapeutic Recreation, Athletic Training/Sports Medicine and Health Administration. Students should consult with an advisor to identify the most appropriate undergraduate major for their interests, skills and career goals. Students must be assigned an advisor from their chosen undergraduate major to identify the courses that they need to take to complete the requirements of their undergraduate major.

Students also must complete a series of required prerequisite courses to prepare them for the graduate curriculum.

Prerequisite Courses for Physical Therapy

- **Biology/Health Science.** 12 credits are required, including courses in Anatomy (recommended CMU courses include HSC 215 OR BIO 337), Physiology (recommended CMU courses include HSC 215 OR BIO 392), and Genetics (recommended CMU courses include BIO 315 or 326). Laboratories required for both Anatomy and Physiology.

- **Chemistry.** 8 credits are required. Recommended sequences at CMU include CHM 131 and 132 OR 120, 127 and 342. Laboratory experience required for all courses.

- **Psychology.** 9 credits are required, including a course in developmental psychology. A course in rehabilitation or health psychology is strongly recommended.

- **Physics.** 8-10 credits are required, including a laboratory experience. Suggested course sequences at CMU include either PHY 130, 170, 131, 171 or PHY 145, 146, 175, 176.

- **Mathematics.** A background in algebra and trigonometry sufficient for success in chosen physics sequences. MTH 106 is a prerequisite for PHY 130 at CMU.

- **Statistics.** An introductory course in statistics is required. Recommended CMU courses include BIO 500, PSY 211 or HSC 514.

To gain admittance into the professional portion of the program, students need to complete a secondary application. Applications will be considered only if students have completed (or are in the process of completing) their major requirements, university program requirements and physical therapy prerequisite courses. Admission to the program is competitive. Students should contact their advisor for specific information on this process.

For a complete description of the application process and the Graduate Program in Physical Therapy, please consult the current Central Michigan University College of Graduate Studies Bulletin.

**NOTE FOR TRANSFER STUDENTS:** The recommended prerequisite courses have been chosen to provide students with the appropriate background to be successful in the professional curriculum. For students transferring from other institutions, the specific courses taken may vary and the equivalency of the content in those courses to meet the prerequisite requirements will be determined by the faculty of the physical therapy program. Under special circumstances, students may be admitted who have not completed the exact series of recommended prerequisite courses but can demonstrate that they possess an academic background that provides them an equivalent preparation. In those cases, the faculty of the program determines whether a student has received an equivalent preparation.

**Accreditation**

The Graduate Program in Physical Therapy at Central Michigan University is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA).

Pre-Physician Assistant

Advisor: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

As health professionals who are licensed to practice medicine with physician supervision, physician assistants provide many services that have been traditionally performed by physicians. Physician assistants take patient histories, conduct physical examinations, diagnose and treat illness, order and interpret laboratory tests, perform minor surgery and, in most states, prescribe medication.

Physician assistants work in a variety of medical settings including emergency departments, private physician practices, health care clinics, mental health facilities, and hospitals. Because physician assistants can deliver care in such diverse settings and are cost-effective members of the traditional health care team, employment opportunities are abundant for graduates of this master’s degree program.

The Program

The CMU physician assistant program is a graduate program and was established to provide physician assistants for central and northern Michigan. However, graduates of the program are not required to work in Michigan.

Students will complete the curriculum in 27 months. The first 15 months are spent primarily on campus in classroom and laboratory instruction. The remaining 12 months consist of clinical rotations in various medical specialties.

Most rotations are conducted in central and northern Michigan.

**Prerequisite Courses**

**Biology/Health Science Courses**

At CMU this prerequisite is met by:

- **Anatomy:** BIO 337 OR HSC 214
- **Physiology:** BIO 392 OR HSC 215
- **Pathophysiology:** HSC 411 (which requires HSC 211 as a prerequisite)

**Chemistry Courses**

- **General Chemistry:** CHM 120 and CHM 127 OR CHM 131 and CHM 132
- **Organic Chemistry:** CHM 342
- **Biochemistry:** CHM 421

**Psychology Courses**

- **Introductory Psychology:** PSY 100
- **Developmental Psychology:** PSY 220

**Mathematics Courses**

- **Biostatistics:** HSC 544 OR BIO 500
Admission Criteria
At the time they apply for admission to the program, students must have completed or be near completion of an undergraduate degree (B.A. or B.S.).

In addition, applicants must have completed a minimum of 100 hours of direct health care experience which may be obtained through volunteer work or employment. Although indirect patient care experiences can be valuable, clerical work performed in a medical setting or “shadowing” a physician assistant or physician are not acceptable direct health care experiences.

For admission to the program, students must earn a grade point average of 2.8 in prerequisites and overall undergraduate academic coursework. Applicants must submit scores of the Graduate Record Examination (GRE) with application materials.

Admission Process
Applications for the program are available May 5 via CASPA (www.caspaonline.org) for domestic students only. International students must contact the Office of Admissions & Enrollment Management in The Herbert H. and Grace A. Dow College of Health Professions via phone at: 989-774-1730, or toll-free at: 866-744-0010, or via email at: chpadmit.cmich.edu for an application packet. International students can also download the application materials from our website at: www.chp.cmich.edu/pa. Application deadline is October 1 for the following year’s program. Applicants are encouraged to apply early!

Program requirements, prerequisites, admissions process, financial aid information, etc. can be found by logging on to the PA home page: www.chp.cmich.edu/pa.

Candidates will be notified of their admission status by January 1.

Accreditation
Central Michigan University is accredited by the North Central Association of Colleges and Schools. In addition, the physician assistant program is accredited by the Accreditation Review Commission on Education of the Physician Assistant.

Pre-Veterinary Medicine
Advisors: Consult the current Class Schedule Booklet for a list of Pre-Professional Advisors.

For information, go to http://www.cst.cmich.edu/users/Alm1EW/PreVetIndex.html.

In addition to private practice, numerous career paths are available to veterinarians. These include public health, pharmaceutical and biomedical research, zoo and aquarium medicine, wildlife medicine and rehabilitation, teaching, and military service. Veterinarians are employed by state and federal government agencies, private industry, universities and teaching hospitals, and the Army Veterinary Corps.

Admission to a professional program in veterinary medicine is highly competitive. Two to four years of college courses are required to complete the admission requirements for admission to veterinary school. The College of Veterinary Medicine at Michigan State University will accept applications for admission after completion of both the CMU program and either GRE or MCAT examination.

Before or during the first semester of college, students should make an appointment with a Pre-Veterinary advisor at CMU to outline a program of study that will satisfy the course requirements for application to the College of Veterinary Medicine at MSU.

Courses required by MSU are as follows:

- BIO 110 (4)
- CHM 131 (4) and CHM 132 (4) or CHM 161 (5), CHM 345 (3), CHM 346 (3), CHM 349 (2), CHM 425 (3)
- PHY 130 (4), PHY 131 (4), PHY 170 (1), PHY 171 (1)
- HEV 370 (3)
- MTH 106 (3), MTH 107 (3) or MTH 130 (4)*
- ENG 101 (3), ENG 201 (3). Students who are excused from ENG 101 should take ENG 201 and three hours of literature.
- Arts and Humanities: Two courses with a minimum of three semester credits each that must include two or more of the following subject areas: history, literature, art history or appreciation, music history or appreciation, theatre history or appreciation, philosophy, and religion.
- Social Science: Two courses with a minimum of three semester credits each that must include two or more of the following subject areas: cultural anthropology, economics, human geography, political science, psychology, and sociology. One of these courses must be at the 200 level, and one course must be at the 300 level or higher.

*Higher level math courses may substitute.
**Classification of Students**

A student is classified in accordance with the semester hours of credit earned as follows:
- **Freshman**: 1-25 semester hours of credit
- **Sophomore**: 26-55 semester hours of credit
- **Junior**: 56-85 semester hours of credit
- **Senior**: 86 or more semester hours of credit
- **Graduate**: After admission to CMU School of Graduate Studies

Classification is determined by the current Bulletin, not the issue in effect when the student was admitted.

**Full-Time Status**

The definition of full-time status for a regular semester is as follows:
- Undergraduate students: a minimum of 12 credits
- Graduate students: a minimum of 9 credits

**Undergraduate Grading System**

<table>
<thead>
<tr>
<th>Grades</th>
<th>Significance</th>
<th>Honors Points Per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td></td>
<td>2.7</td>
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<tr>
<td>C+</td>
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<td>2.3</td>
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<tr>
<td>C</td>
<td></td>
<td>2.0</td>
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<tr>
<td>C-</td>
<td></td>
<td>1.7</td>
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<tr>
<td>D+</td>
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<td>D</td>
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<td>1.0</td>
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<tr>
<td>D-</td>
<td></td>
<td>0.7</td>
</tr>
<tr>
<td>E</td>
<td>Failing</td>
<td>0.0</td>
</tr>
<tr>
<td>CR</td>
<td>Credit</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>No grade submitted</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>No Credit</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>Not included in computing hours</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>and points</td>
</tr>
<tr>
<td>X</td>
<td>Audit</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>Deferred Grade</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>Honors Program</td>
<td></td>
</tr>
</tbody>
</table>

*(Designates Honors Credit in combination with letter grade of C or better)*

The marking system for CMU graduate students is described in the Graduate Bulletin.

**Grade Point Average**

The grade-point average for undergraduate students is found by dividing the total honor points earned by the total hours attempted.

**Grade Reports**

At the end of each on-campus semester or session, students may access their grades via the CMU Portal (https://portal.cmich.edu).

**Point Deficiency - Undergraduate Students**

A point deficiency is defined as the number of points lacking to make a cumulative grade point average of 2.00.

**Enrollment at Other Institutions**

A matriculated CMU undergraduate student who has enrolled at another college or university since his or her last enrollment at CMU must request that an official transcript be sent to the CMU Registrar's Office as soon as the course has been completed. Refer to the Transfer Credit Policy in the Academic Policies and Procedures Section of this Bulletin.

**Policy requiring a signed major by completion of 56 credit hours**

All students enrolled on the Mt. Pleasant campus are required to complete an authorization for a major or sign a statement of intent to major by the time they earn 56 hours of credit. Students' records will be reviewed and a registration hold placed on students who have completed 56 hours and have not signed a major or a "statement of intent to major."

**Class Attendance**

Class attendance regulations are not inflexibly spelled out. Upon the assumption that class attendance is a responsibility shared by adults, as teachers and class members, there is no university-wide regulation requiring attendance by students, or requiring the instructor to excuse absences from class or examination.

Most classes meet for 50 or 75 minute periods. Students are traditionally obliged to wait ten minutes for an instructor who is late in meeting class.

**Missed Class Policy**

Students are expected to comply with an instructor’s established attendance policy, and they should avoid classes where there would be significant absences. In the case of an absence due to required attendance at a university-sponsored event such as a department trip, performing arts activity, ROTC function, or athletic competition, reasonable attempts should be made by faculty members to allow the student to make up missed work. Students are responsible for completing the work assigned or due on the days they are absent for these events. Both the sponsoring unit and the student should inform the faculty member as soon as possible in the semester so arrangements can be made for completing missed assignments or tests. The student is required to provided each instructor with an official notification in advance of the absence (e.g., a letter from the department chair or the coach). Optimally, this would be done by the third week of the semester, at the latest, so that the necessary arrangements for missed work can be made well in advance.

The student must decide when, if ever, it is necessary to be absent. In making such a decision, the student must bear in mind that an instructor is authorized to lower scholastic ratings if the student’s absences or latenesses require this action. If a student finds it necessary to be absent, an explanation should be made to the instructor of the class concerning the cause of the absence. Whenever possible the student is to notify the instructor in advance of proposed class absences. The instructor may choose to guide the student in making up work losses due to absences, if the student requests such assistance. The Office of Student Life will assist students in notifying instructors when absences are expected to extend for more than one week.
Religious Holidays

It is Central Michigan University policy to permit students to be absent from classes or examinations for reason of observing religious holidays. Students are allowed to make up course requirements when they are unable to avoid a conflict between their academic and their religious obligations. Absence from classes or examinations caused by observing religious holidays does not relieve students from responsibility for any part of the coursework required during the period of absence. It is the obligation of students to provide faculty with written notice of the religious holiday they will be observing and the date on which they will be absent at least two weeks prior to the date of the religious holiday. Students who miss classes or are absent on days of examinations or class assignments shall be offered an opportunity to make up the work, without penalty, unless it can be demonstrated that a makeup opportunity would interfere unreasonably with the delivery of the course. Should disagreement arise over any aspect of this policy, the parties involved should contact the department chair, the dean of the College or the Ombudsperson. Final appeals will be resolved by the Provost.

Minimum Class Enrollment

The university reserves the right to cancel any class in which too few students enroll.

Opportunities for the Superior Student

An enriched academic program which can be planned largely by the individual is available to the superior student at Central Michigan University. Numerous special opportunities exist for the student who wishes to enter university study at an advanced level, to move on rapidly to specialized studies, or simply to learn more.

Larzelere and Trout halls, where Honors Program students may elect to live with persons of similar interests, provide a learning setting. The Honors Program (see index) offers many special study opportunities.

Financial assistance is provided for many students of outstanding high school and college academic performance by means of Board of Trustees, State of Michigan, and endowed scholarships. Advanced placement earned through College Level Examination Program is another incentive to the academically talented and motivated student. The Honors Program (see index) offers research and study abroad funding.

In addition to recognition upon graduation with high class standing, the University provides many honor societies in the various departments and fields of study.

Scholarship Requirements for Specified Purposes

As a part of requirements for participating in certain special programs, there are scholarship standards for the following:

Directed Teaching. To be eligible to enroll in a Directed Teaching course, a student must have a cumulative point average of 2.50 or better and must be admitted to the Teacher Education Program before the application for directed teaching can be submitted or processed.

Athletic Participation. To be eligible for intercollegiate athletic competition, a student athlete must meet all admission and eligibility requirements of this University, the Mid-American Conference, and the National Collegiate Athletic Association.

Participation requires that the student athlete be registered for at least 12 semester hours of credit throughout the semester in which he or she participates.

Academic Dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. Written or other work which a student submits must be the product of his/her own efforts. Plagiarism, cheating and other forms of academic dishonesty, including dishonesty involving computer technology, are prohibited.

In cases involving academic dishonesty, determination of the grade and of the student’s status in the course are left solely to the discretion of the instructor as defined in the Policy on Academic Integrity. In a case where the instructor judges a student guilty of academic dishonesty, the instructor is encouraged to report the incident of dishonesty to the director of the Office of Student Life in order to discern potential patterns of egregious dishonesty. For a full copy of the Policy on Academic Integrity, see Appendix II in this Bulletin, or at http://academicsenate.cmich.edu/NonCad/ACADEMIC_INTEGRITY_POLICY.pdf.

Misrepresentation of Affiliation with the University

It is important to Central Michigan University, its students and alumni that academic and cocurricular work done by students while at the university be accurately and honestly presented. When individuals report their academic performance and/or involvement in university related activities it is expected that they will do so in a truthful manner. Anyone involved in misrepresentation of student coursework, grades, degrees earned and/or involvement with cocurricular organizations or other university related activities may be barred from future enrollment and/or graduation from Central Michigan University. Such activity may also be criminal and subject the person to prosecution.
Academic Probation, Suspension and Dismissal

Students with Academic Difficulties
Students at Central Michigan University have the responsibility to realize when they are having academic difficulties and to seek help as needed. Students are encouraged to seek assistance from their instructors, counselors or advisors, or the Academic Assistance Programs office.

When a student is not succeeding in a course, the instructor is encouraged to help correct the difficulty or make a referral. Instructors may report their concerns to the director of Academic Assistance Programs, who is available to assist in resolving difficulties.

Academic Probation Policy
At the end of each semester or summer session, a student whose cumulative grade point average falls within the range for the interval of credit hours shown in the following table is placed on academic probation. The range is determined by attempted hours or total hours, whichever is greater. Total hours includes credits earned at CMU as well as transfer credits or hours earned in any other manner.

<table>
<thead>
<tr>
<th>Attempted/Total Hours</th>
<th>GPA Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-18</td>
<td>1.00-1.99</td>
</tr>
<tr>
<td>19-35</td>
<td>1.50-1.99</td>
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<tr>
<td>36-45</td>
<td>1.70-1.99</td>
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<tr>
<td>46-58</td>
<td>1.80-1.99</td>
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<tr>
<td>59-71</td>
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<tr>
<td>72-85</td>
<td>1.90-1.99</td>
</tr>
<tr>
<td>86 and over</td>
<td>1.95-1.99</td>
</tr>
</tbody>
</table>

The university notifies students who are placed on academic probation, and encourages them to seek counseling or assistance. If a student is on academic probation for three consecutive semesters the student may be academically dismissed from the university.

Academic Suspension Policy
New freshmen and transfer students are subject to academic suspension if their first semester grade point average falls below the range for academic probation. Suspended students may re-enroll for the next academic session if granted permission by the Committee on Rematriculation. Permission to re-enroll for the next session is requested through the Academic Assistance Program office. A written appeal and a personal interview, and payment of the Rematriculation Application Fee are required. This procedure is outlined under Rematriculation in the Admissions section of the Bulletin.

Academic Dismissal Policy
A student is subject to academic dismissal if his or her point average falls below the point average range for probation, or when the student has been on academic probation for three consecutive semesters and has not made strong academic gains.

The university reserves the right to cancel the matriculation of a student at the end of any session when his or her total record indicates that such action is desirable. Likewise, a student whose total record shows considerable ability and marked improvement may be given special consideration.

The university notifies students whose matriculation is cancelled.

No student whose matriculation has been cancelled, or would have been cancelled had he or she been a student at the university, can enroll again unless readmitted. Consideration for rematriculation will be given to dismissed students only after an absence of one academic year or more. Students may apply for readmittance to the Committee on Rematriculation. A written application, a personal interview, and payment of the Rematriculation Application Fee are required. This procedure is outlined under Rematriculation in the Admissions section of the Bulletin.
Advanced Standing

Advanced Placement Program (AP)
College-Level Examination Program (CLEP)
International Baccalaureate
Proficiency Examination Program (PEP)

Students may be granted credit at CMU by earning high scores on specified AP, CLEP, International Baccalaureate, and PEP examinations. CMU has selected the scores necessary for credit with a primary concern that students receiving credit will have sufficient preparation for subsequent coursework in the area of study. Thus, scores required by CMU may be higher than minimum recommended levels for other organizations.

In the following list, each approved AP examination is paired with the CMU course in which credit is granted for a minimum score of three. The courses on this list have been approved by individual academic departments and are subject to change. Art (General Studio) - three hours Art credit, Art (History) - ART 185; Biology - BIO 101; Calculus AB - MTH 132; Calculus BC - MTH 132 and MTH 133; Computer Science A - CPS 180; Computer Science AB - CPS 181; Cultures of the World - GEO 121; English Language and Composition OR English Composition and Literature - ENG 101; Government and Politics (U.S.) - PSC 105; Government and Politics (Comparative) - PSC 242; Physics B - PHY 130 and 131; Physics C (Part I) - PHY 145, Physics C (Part II) - PHY 146; Psychology - PSY 100, Statistics - STA 282. Students earning a four or five on the statistics exam will receive credit for STA 382. Students will receive credit for the history examinations as follows: History (American): HST 111 (score of four), HST 111 and 112 (score of five); History (European): HST 102 (score of four), HST 101 and 102 (score of five). Students will receive credit for the Chemistry examinations as follows: CHM 131 (score of three or four), CHM 131 and 132 (score of five). Students passing the French, German, Latin, or Spanish Language examination receive credit in the 201 course for a score of three, both the 201 and 202 courses for a score of four, and ten to twelve hours at the 200 level for a score of five.

Credit may be earned in ENG 101 for a score of 51 on the CLEP English Composition General Examination with Essay when the test is passed before the end of the student's first semester at a college or university. The following list includes approved CLEP subject examination and the CMU course in which credit can be granted: American Government - ENG 105; Analysis and Interpretation of Literature - ENG 134; Calculus with Elementary Functions - MTH 132; College Algebra - MTH 107; English Literature - ENG 235 and 236; General Biology - BIO 101; General Chemistry - CHM 131 (plus CHM 132 if score is at or above 85th percentile); Introduction to Management - MGT 312; Introductory Psychology - PSY 100; Introductory Accounting - ACC 201; Introductory Sociology - SOC 100; Principles of Marketing - MKT 300; Trigonometry - MTH 106. Additionally, the College French, German or Spanish (Levels 1 and 2) examinations may be used to gain credit in French, German or Spanish courses numbered 101, 102, 201, or 202. General credit may be earned on the CLEP Humanities General examination and/or the CLEP Social Sciences and History examination.

Credit earned through the CLEP Humanities General Examination and the CLEP Social Sciences-History General Examination may NOT be used to satisfy University Program requirements.

Three hours credit in ENG 101 will be granted for a score of four or higher on the International Baccalaureate English, Language A examination at either the higher or the subsidiary level.

Credit may be earned in GEL 101 for a score at the eightieth percentile on the PEP Physical Geology examination.

Contact Undergraduate Academic Services, Warriner Hall, for information concerning AP, PEP, and the International Baccalaureate.

*Contact Undergraduate Academic Services for an updated list of cutoff scores on individual exams.

Computer-based Testing Center (CBTC)

Testing programs administered through the center include the College-Level Examination Program (CLEP) and nationally-developed testing programs (GRE, GMAT) for those seeking admission to graduate programs. The web site is http://www.academicaffairs.cmich.edu/CBTC/cbtc.shtml.

Auditing a Course

A CMU student interested in taking an undergraduate course on an audit basis must obtain, prior to registration, the approval of the department chairperson offering the course. An Approval to Audit Request Card, signed by the student and the department chairperson, must be filed in the Registrar’s Office or Student Services Court by Friday of the third week of class.

No credit is granted for a course being audited, but such credit as the course normally would carry is included as part of the student’s total load, and fees are assessed accordingly. No change from regular registration to audit, or from audit to regular registration is permitted after the published deadlines.

The student’s responsibility to the class being audited is determined by the department chairperson and the instructor of the class.

Change of Grade

A request to change a grade may be requested by an instructor by filing a “Change of Grade Request Card” with the chairperson of the department. The chairperson will forward the request to the dean of the college.

Requests for change of grade involving error by an instructor --such as error in recording grade, transpositional error, error in transferring grade to Final Grade List, miscalculation, computational error, error in scoring final exam, test or assignment grade not recorded, papers misplaced by instructor and found after grade was recorded, error in graduate assistant or lab assistant reporting grade to grading instructor, or instructor forgetting that a student had been promised an “I” grade--shall be processed by the Registrar’s Office without any action by a school Change of Grade Committee.

All other requests for change of grade are to be submitted by the dean to the Change of Grade Committee. If the request is approved, the chairperson of the committee or the appropriate dean forwards the card to the Registrar’s Office for processing.

“Change of Grade Request Cards” may be obtained by faculty members from either the department chairperson or the Registrar’s Office.
Correspondence Courses

Completed correspondence courses carry the same amount of credit and points as those taken on campus.

Correspondence credit may not apply toward requirements for a continuing certificate, renewal of a provisional certificate, or conversion of a provisional or continuing certificate. A maximum of 15 semester hours of correspondence credit may be applied toward a baccalaureate degree. Semester hours earned through correspondence courses do not apply to meet any of the hours required in residence.

Course Substitution

Every student is expected to take the required work prescribed for the degree plan he or she is following. It is sometimes necessary, however, to make substitutions, especially in the case of students who have not been in attendance for several years or who have transferred from other colleges. The following govern such deviations:

Degree Substitution. Substitution for a specific course prescribed on a particular degree, except as noted below, will be processed only when (1) approved by the chairperson of the department offering the course and (2) certified by the chairperson to the Registrar on an Application for Substitution form. No substitution may be made for courses comprising the University Program or competency requirements portions of the student’s degree requirements.

Change In Authorization for Major or Minor. Change of a required course on an authorized major or minor will be processed only (1) when approved by the student’s departmental advisor who previously signed the authorization, and (2) when certified by the advisor to the Registrar on a “Change in Authorization for Major or Minor” form. The departmental chairperson shall authorize changes in the absence of the departmental advisor.

Substitution and change of authorization forms are available at the Registrar’s Office and online (http://www.registrars.cmich.edu) under “Departmental Forms.”

Credit by Examination

A regularly matriculated student who has had experience or background comparable to a course at this university may file for Credit by Examination in a specific CMU course under the following conditions:

1. No credit transferable to CMU has been earned in the course requested by examination.
2. No advanced placement had been given for the course requested by examination.
3. No higher level course in that subject area was taken prior to requesting credit by examination.
4. Credit by examination may not be used to repeat any course previously taken, either to remove a failure or to improve a grade, as provided in the Repeat Course Policy.
5. Credit by Examination is not available by Credit/No Credit Option. The only class where Credit/No Credit is a valid grade by exam is a class that is only offered on the CR/NC basis.

“Credit by Examination” forms are available in the Registrar’s Office, Warriner Hall. The form is then to be submitted to the appropriate department chairperson. If the department chairperson approves the course for credit by examination, an instructor will be assigned to give the examination and the student will be directed to pay for the course and submit the approved form to the Registrar’s Office.

Credit by Examination when graded carries point values as do other courses. Credit by Examination in courses offered only on the CR/NC basis do not carry point values and count only as earned hours. Semester hours earned by Credit by Examination do not apply to meet any of the hours required in residence.

Undergraduate Credit/No Credit Policy

An undergraduate student may take courses on a Credit/No Credit basis subject to regulations summarized here. The option is elected by submitting an Undergraduate Credit/No Credit Request Card to the Registrar’s Office before the published deadline.

The instructor is not notified when a course is taken credit/no credit and so assigns the student a letter grade. The grade is automatically converted to credit or no credit according to the following guidelines. The student earns credit (CR) for the course and credit toward graduation when a grade of C or better is assigned. No credit (NC) is earned when the assigned grade is C-, D+, D, D-, or E. The course appears on the student’s permanent record with the CR or NC grade, but the grade has no effect on the grade point average.

Departments designate which of their courses may be taken on a credit/no credit basis and whether such credit may be applied to a major or a minor. A department may offer certain courses exclusively on a credit/no credit basis after approval by the appropriate curricular authorities and publication in the University Bulletin.

A maximum of 25 semester hours of credit earned under the credit/no credit option may be applied toward an undergraduate degree. Courses exclusively offered on this basis are not included in the 25-hour restriction. Students may not take more than two courses or 7 hours for credit/no credit in the University Program.

Procedures and deadlines for registering for courses on a credit/no credit basis can be found in the current Class Schedule booklet. A student who officially elects the credit/no credit option for a course may not change the registration to a letter grade designation after the deadline.

Regulations for graduate credit/no credit offerings are to be found in the Bulletin of the College of Graduate Studies.

Prior Learning Assessment Credit

Undergraduate students may apply for credit for past personal and professional experiences which have resulted in the attainment of college-level competencies. Academic credit may be awarded for learning resulting from career and personal experiences; job-related activities; extensive hobbies, travel and foreign residency; community service; and training received through on-the-job instruction, self-study, or specialized schooling. To be applied to a program plan, prior learning must be directly related to the degree being pursued. Credit from prior learning may not be used to meet any University Program or Competency requirement. For more information, contact the Prior Learning Assessment secretary at 774-7126.

Non-Degree Courses

Courses numbered (DESIGNATOR) 589 - Professional Development (1-6) do not apply to degree requirements. These courses cover selected issues designed for professional development, in-service training to meet specific staff development needs in education, business/industry, allied health, technology, and other professional settings. They are not applicable to degree requirements.

Undergraduate Appeal Process

An undergraduate student may request a review of the following through an appeal:
1. Course substitution or other modification of the University Program and competency requirements
2. Individual course transfer
3. Extension of bulletin
4. Graduation or degree requirements

Information concerning filing an appeal is available through the Academic Senate Office located in the Bovee UC 108.
Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 (FERPA) affords students certain rights with respect to their educational records. They are:

1. The right to inspect and review the student’s educational records within 45 days of the date the University receives a request for access.

Students should submit to the Registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s educational records that the student believes are inaccurate, misleading, or otherwise in violation of the student’s privacy rights.

Students may ask the University to amend a record they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identifying the part of the record they want changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedure will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s educational records, except to the extent that FERPA authorizes disclosures without consent.

One exception which permits disclosure without consent is disclosure to University officials with legitimate educational interests and/or needs to review an educational record in order to fulfill his or her professional responsibility. A University official for the purpose of this policy is defined as follows:

- members of the faculty;
- members of the professional, executive, and administrative staff, excluding any member of the Central Michigan University Police Department;
- students, when properly appointed as members of a hearing panel or screening committee;
- representatives of the State Auditor General when performing their legal function;
- a person or company with whom the University has contracted (e.g., attorney, auditor, or collection agent) but limited to only the specific student information needed to fulfill their contract;
- others as designated in writing by the President, a university vice president, or dean.

Upon request, the University discloses educational records without a student’s consent to officials of another school in which a student seeks to enroll.

Another exception which permits disclosure without consent is when the information consists solely of “Directory Information.” Directory information may be published or released by University faculty and staff at their discretion. Unless a student specifically directs otherwise, as explained more fully in paragraph (4) below, Central Michigan University designates all of the following categories of information about its students as “Directory Information”:

a. name, campus address, home address, telephone listing, and campus e-mail;
b. state of residence;
c. age, date, and place of birth;
d. major field of study, including the college, department, or program in which the student is enrolled;
e. classification as a freshman, sophomore, junior, senior, or graduate student;
f. enrollment status (full-time, half-time, less than half-time);
g. participation in officially recognized activities and sports;
h. weight and height of members of athletic teams;
i. dates of attendance and graduation, and degrees received;
j. the most recent educational institution attended;
k. honors and awards received, including selection to the Dean’s or President’s list, honorary organization, or the GPA range for the selection.

4. A student has the right to refuse the designation of all categories of personally identifiable information listed above (a. through k.) as Directory Information. If a student exercises this right, it will mean that no Directory Information pertaining to the student will be published or otherwise released to third parties without consent, a court order, or a subpoena.

Any student wishing to exercise this right must inform the Registrar’s Office in writing by the end of Phase II registration regarding the withholding of all categories of personally identifiable information with respect to that student. Once a student has requested the withholding of information, “Directory Information” will be withheld until one year after the student’s last attendance at the University. Students who do not attend the University for a period of one year will need to file a new request at their return if they wish to reinstate the withholding of directory information.

5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Central Michigan University to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5901

Grade Grievance Policy

1. The university recognizes that it is the instructor’s prerogative to determine a grade. Responsibility for resolving grading disputes is shared among the instructor, the student, the department, and the college. If a question is raised by a student concerning a grade, the instructor should discuss the matter willingly and give evidence to make clear his/her basis for determining the grade. (In turn, the student should recognize the need to demonstrate a valid basis for complaint). At any time, either upon the student inquiry or upon his/her own initiative, the instructor who believes a change of grade is justified may initiate a request for a change in grade.

2. A student who desires discussion of a complaint about a grade shall contact the instructor or if the instructor is unavailable, the department chairperson, either in person or in writing as soon as possible, but in no case later than sixty days after the beginning of the next regular semester. Any exception to the time limitation shall be for unusual and most compelling reasons. Ordinarily, the student should accept the instructor’s decision. However, if the student is still not satisfied, he/she may request in writing a joint consultation with the instructor and the chairperson of the department involved. In case the student’s
request for joint consultation involves an instructor who is also chairperson of the department, the student’s request in writing should be sent to the dean of the school or college involved. In such cases, the dean shall act in place of the department chairperson.

3. The following procedures are available for review of allegations of capricious grading. They are not for review of the judgment of an instructor in assessing the quality of a student’s work, nor are they to be used in cases involving academic dishonesty. Determination of the grade in such cases is left solely to the instructor. A student who is not satisfied after consultation with the instructor and department chairperson, and who alleges that the semester grade is the result of capricious grading may file an appeal within ninety days of the start of the next regular semester to the dean of the instructor’s college for forwarding to the College Committee on Review of Change of Grade. The student shall file the appeal by submitting a written statement particularizing the basis for the allegation that the grade was the result of capricious grading, and present any evidence he/she may have.

Capricious grading, as that term is used herein, constitutes any of the following: (a) the assignment of a grade to a particular student on some basis other than his/her performance in the course; (b) the assignment of a grade to a particular student to resort to more exacting or demanding standards than were applied to other students in that course. It is understood that standards for graduate credit may be different from standards for undergraduate credit; (c) the assignment of a grade by a substantial departure from the instructor’s previously announced standards.

4. The appeal shall be dismissed if: (a) the appeal was not timely; (b) the allegations, if true, would not constitute capricious grading; or (c) the student has not attempted to confer with the instructor or chairperson of the department. If the appeal is not dismissed, the committee shall submit a copy of the student’s written statement to the instructor of the course with a request that the instructor promptly submit a written response thereto, a copy of which shall be made available to the student. If, upon the basis of these papers, it appears that the dispute may be attributable to inadequate or incomplete communication between the parties, the committee may arrange to meet individually or together with the student and instructor to discuss the problem.

5. If such a meeting is not held or, if held, such meeting does not result in a mutually agreeable solution, the committee shall proceed to hold a fact-finding session concerning the allegations set forth in the appeal. Both the student and the instructor shall be entitled to be present throughout the session and to present any relevant evidence, including testimony by other persons. The student and the instructor both may be accompanied by a person to assist them in presenting evidence. The session shall not be open to the public.

6. At the close of the session, the committee shall deliberate privately. If a majority find the allegations of capricious grading to be supported by substantial evidence, the committee shall proceed to determine the most appropriate remedy. The committee may direct the instructor to grade the student’s work anew or to give the student a new examination in the course, or may take such other action as will bring about substantial justice in the individual case. However, except in the most extraordinary circumstances, the committee itself should not award the student a new grade in the course. The decision of the committee shall be final and shall be reported in writing to the student, instructor, and the departmental office.

7. The College Committee on Review of Change of Grade may also resolve complaints involving suspected violation of grading policies for incomplete and deferred grades, dropping a class, or withdrawal from the university. The same procedures as outlined above for review of alleged capricious grading shall be followed.

1 If the instructor of the course is a member of the Committee, he/she shall be disqualified from the consideration of that appeal.

Incomplete and Deferred Grade

Incomplete Grade. I (Incomplete) is a temporary grade used by the instructor in cases when a student is unable to complete course requirements because of illness or other justifiable circumstances. It is assigned only in cases in which the student has completed satisfactorily the major portion of the course requirements, and has convinced the instructor of his or her ability to complete the remaining work without re-registering for the course. It is not to be given to a student who is already doing failing work. A form must be completed and signed by the faculty member (and the student, when possible) whenever a grade of I is assigned. The form is to be kept on file in the departmental office. An instructor who assigns a grade of I also submits a formal statement to the department chairperson of requirements to be satisfied for removal of the Incomplete grade. A copy of the statement of requirements, including deadlines for their completion, shall be made available to the student.

It is the student’s responsibility to contact the instructor to make arrangements for completing the remaining work. The required work should be completed and a grade reported by the end of the student’s next semester in residence, but in no case later than one calendar year following the receipt of the I. A student not completing the remaining work by the end of one calendar year following the receipt of an I would retain an I only if the instructor chooses not to change the I to a specific grade ranging from A to E by the end of the calendar year. An I (Incomplete) may not be removed by registering again for the course.

If the instructor of the class in which the I was incurred is no longer a member of the faculty, the student should contact the department chairperson, who shall act on behalf of the former instructor.

Exceptions to these regulations can be made only when requested by the student and approved by the instructor or the department chairperson and the dean of the college, and certified by the dean of the college to the Registrar.

Deferred Grade. The Z (deferred grade) may be recorded for students registered for independent study, for thesis, International Program Studies courses, or for other courses specifically approved for Z grades in the Bulletin, if the instructor believes that the quality and quantity of work completed by the end of the semester justifies an extension of time. An instructor who assigns a grade of Z shall submit, on the proper form, a statement to the department chairperson of remaining requirements for removal of the deferred grade. A copy of the statement of requirements, including deadlines for their completion, shall be made available to the student.

Recomputation of Grade Point Average

An undergraduate student may petition for recomputation of his or her cumulative grade point average if:

1. the student has not attended CMU or any other institution for four or more consecutive years, and

2. the student re-enrolls after his or her matriculation was canceled or after withdrawing voluntarily with a cumulative grade point average under 2.00 (academic probation).
A petition form for recomputation may be obtained from the Academic Assistance Programs office. This policy may apply to students presently enrolled at CMU.

If the petition is approved, all courses taken will remain on the permanent record. Those courses with grades of A, A-, B+, B, B-, C+, C, C-, or CR will be counted for credit only. The student resumes his or her academic program at CMU with no cumulative grade-point average, and thereafter is subject to the conditions of probation and dismissal that govern all students. A student may not graduate from Central Michigan University under this policy unless he/she earns at least 12 semester hours of credit at this institution after the recomputation has been granted.

Undergraduate Repeat Course Policy
Undergraduate students may request a course, but the following conditions apply:

1. A student may repeat a course in which they have earned a grade of A through E. All grades will appear on the transcript, but only the grade received will be utilized in computing cumulative hours and GPA.
2. A student may not repeat a course on the CR/NC grading option.
3. If the designator or the course number has changed since the student’s previous attempt, the student is encouraged to complete a Repeat Course Request card with the Registrar’s Office by the deadline date. This will ensure that the repeat will be noted and will be included in the current semester calculations.
4. A student repeating a CMU course at another college/university must earn a higher grade than their original attempt for the course to transfer. Honor points will not transfer but the previous CMU honors points will be removed in computing the average.
5. A course taken after a student graduates will not change the previously attempted grade or credit hours.
6. A student is limited to 3 attempts of a course. This includes repeats where they have earned a grade of A through E, or attempts where they were awarded grades of CR, NC, I, W, Z, or X.
7. This limitation does not apply to independent study and similar courses for which course content varies significantly with each offering. (Often these are courses with variable credit hours.).
8. For exceptions to this limitation policy, a student may appeal to the Chairperson of the department offering the course.

Transcripts
A student desiring an official transcript of his or her record from this university should submit a written, hand-signed request to the Registrar’s Office, CMU, 212 Warriner Hall, Mt. Pleasant, MI 48859. Letter requests should include name, address, daytime phone number, last four digits of his/her Social Security number, dates of attendance, birth date, and, if a graduate, the date of graduation. The request should also include the complete name and address of where the transcript is to be sent. There is no charge for a transcript. (Note: If a student has an undergraduate and graduate record, both will be sent). No transcript will be released without written authorization of the student. We will accept transcript requests via fax (989-774-3783), however, we are unable to fax out a transcript.

Ordinarily, transcripts are processed in one to three days. Priority service is available by specifically requesting the priority service and paying an $10.00 priority charge. Priority requests will be prepared in time for the next outgoing mail. Priority transcripts requested in person will be prepared immediately.

Students may request that official transcripts be sent directly to them, but most businesses and educational institutions will accept as official only those transcripts sent directly to them by the issuing institution. Official transcripts sent directly to the student will be stamped “issued to student.”

Transcripts of students with a past due financial obligation to the university are not released until the obligation is paid.

Transfer Credit Policy
I. Transfers from Accredited Schools and Foreign Institutions. Undergraduate courses from another college or university which is accredited by one of the regional institutional accrediting associations or from a foreign university or college approved by the government or the official regulating agency of the country in which the university or college is located will be considered for transfer credit at Central Michigan University, subject to the following conditions: a.) Courses must be germane to a program at Central Michigan University, b.) Transferable courses completed with a grade of C- or better or the equivalent will be accepted. For credit from institutions that have numeric grading only, you may contact Undergraduate Academic Services (989-774-3504) to verify the minimum grade required for transfer. c.) Credits from foreign institutions will be accepted using the guidelines developed by the World Education Series of American Association of Collegiate Registrars and Admissions Officers, and in consultation with affected departments, d.) Grades and honor or quality points are not transferable to or recorded on the CMU permanent record, e.) Acceptability of transfer coursework to fulfill CMU major or minor requirements is at the discretion of the individual department.

II. Transfers from Non-Accredited Schools. A student who has earned credit or a baccalaureate degree from an institution which is not accredited by one of the regional accrediting associations may appeal through the Board of Appeals who may consult with the individual departments for an exception to the above policy for up to a maximum of 62 credits. Before accepting such credit for transfer credit consideration, the Board of Appeals will consult with the individual departments. If a positive decision results, transfer credit may then be granted subject to the same conditions that apply to transfers from accredited schools.

III. Exceptions. Academic units may request an exception to the Regional Accreditation portion of this policy from the Degrees, Admissions, Standards and Honors Committee.

IV. Military Transfer and Experience.
A. Military Service School Experiences. Granting of academic credit for military service school experiences will be guided by the evaluations prepared by the American Council of Education and published in the “Guide to the Evaluation of Educational Experiences in the Armed Services.” All Military Service School experiences that are recommended for undergraduate level credit will transfer to Central Michigan University. Acceptability of credit for military service school experiences to fulfill CMU major or minor requirements is at the discretion of the individual department.

B. Military Occupational Specialties. Granting of academic credit for military occupational specialties will be guided by the evaluations prepared by the American Council of Education and published in the “Guide to the Evaluation of Educational Experiences in the Armed Services.” All Military Occupational Specialties that are recommended for undergraduate level credit will transfer to Central Michigan University. Acceptability of credit for military occupational specialties to fulfill CMU major or minor requirements is at the discretion of the individual department.
C. Service Member Opportunity College (SOC) courses. Undergraduate courses from another college or university that is recognized as a Service Member opportunity College institution for either the army (SOCAD), navy (SOCNAV), or marine corps (SOCMAR) will transfer to Central Michigan University subject to the following conditions: 1) the student seeking the transfer of credit is an active or reserve military service member or the immediate family member of a service member; 2) transferable courses completed with a grade of C- or better or the equivalent will be accepted; 3) grades and honor points or quality points are not transferable to or recorded on the CMU permanent record; 4) coursework is taken after the issuance of a Student Agreement by Central Michigan University. The Student Agreement is a record of all of the student’s prior learning (including military experience) and where that learning fits into his or her degree plan.

V. Non-military Training Experiences. Granting of academic credit for selected training experiences offered outside the sponsorship of colleges and universities will be guided by the evaluations prepared by the American Council on Education’s PONSI program (ACE/PONSI). ACE/PONSI credit recommendations appear in the publication entitled The National Guide to Educational Credit for Training Programs.

VI. The MACRAO Articulation Agreement. A person who transfers from a community college in Michigan with a transcript documented as having satisfied the MACRAO Agreement, will also have satisfied the University Program portion of the General Education Requirements section at CMU. All other students may refer to the General Education Requirements in this Bulletin for guidelines on the applicability of their transfer credit toward University Program requirements.

VII. International Baccalaureate Credit. Courses within the International Baccalaureate Diploma and the International Baccalaureate Certificate for individual courses may be accepted as transfer credit on a course by course basis if the higher level examinations have been passed with a score of four or better.

VIII. 13th Year Credit. CMU will allow a student’s 13th year (e.g., the German Abitur) or A-level credit from non-U.S. academic systems to count as undergraduate credit if it is approved by the department responsible for that area (e.g., Biology would have to approve credit for courses taken that relate to biology). Such approval must be done on a case-by-case basis. The student must submit course syllabi, including information as to textbooks used in the course, so that the department can determine whether to approve such credit. Progress of students who receive this credit will be monitored in order to determine the efficacy of this policy.

Withdrawals
Student Initiated Complete Semester Withdrawals from the University
A student withdrawing from the university without having completed the courses for which he or she is registered may do so at any time prior to the final week of regular classes of a semester or session by filing an application for Withdrawal at the Registrar’s Office.

The Registrar’s Office will attempt to verify the reason for withdrawal, determine the effective date of the withdrawal and then process the withdrawal.

A student will automatically receive W’s as an indicator of withdrawal through the tenth week of the Fall or Spring Semester or through the midpoint of all courses shorter than one semester.

The Registrar’s Office will process the withdrawal from the university, process the “automatic W” and notify each faculty member promptly.

Students withdrawing from the university between the tenth week and Friday of the 14th week of semester courses will receive W’s for passing work of D- or better and E for failing work. For short courses, students withdrawing from the university between the midpoint and two class days prior to the end of the course will receive W’s for passing work of D- or better and E’s for failing work. During this period, students enrolled in a CR/NC only course will receive W’s for passing work of C or better and E’s (which are converted to NC) for failing work.

During this period from the tenth week to Friday of the 14th week, the Drop or Withdrawal Request Card will be forwarded to the instructors for assignment of W or E by the Records Office along with the notification of withdrawal. Each instructor will return the form to the Registrar’s Office after assigning the grade and signing the form.

In cases involving academic dishonesty, the determination of the grade shall be left to the discretion of the instructor.

If an instructor refuses to sign the card, or is not available, an appeal may be made to the department chairperson. This policy does not supersede the policy above.

No student may withdraw from the university during the week preceding final examination week.

A student following the above procedures may receive certain refunds, if eligible, in accordance with university regulations.

A student leaving the university without filing a withdrawal form will not be eligible for refunds and will not be eligible for a “W.”

Involuntary Withdrawal
Students who are dismissed for administrative or disciplinary reasons or students who owe past due amounts may be subject to involuntary withdrawal from classes and will receive a “W” for each class as an indicator of withdrawal. In addition, students living in residence halls with a past due balance may have their meals and long distance telephone privileges discontinued until their accounts are brought to a current status. Any delinquencies in the Family Housing Apartments may result in the initiation of eviction proceedings.

University staff will counsel students who:

a. engage or threaten to engage in behavior that poses a danger of causing physical harm to self or others, or

b. engage or threaten to engage in behavior that would cause significant property damage, or directly and substantially impede the lawful activities of others.

In situations a. and b. above, the Dean of Students or designee may refer a student to the Behavior Evaluation Team to assist the student in functioning effectively within the university environment. Referral to the Behavioral Evaluation Team does not preclude removal from the university, or university housing, in accordance with provisions of the Code of Student Rights, Responsibilities and Disciplinary Procedures and/or the Housing Agreement. A student referred to the Behavioral Evaluation Team shall be notified in writing, and shall be provided written information on the procedures to follow.

Individual Class Drops/Withdrawals
Information on dropping a class or withdrawing from a class appears in the Registration section of this Bulletin.

Withdrawal To Enter Military Service
A graduate or undergraduate student who is drafted or recalled to military service after previous active duty may be entitled to receive (a) credit for the semester, (b) refund of fees, or (c) partial credit and partial refund, according to the following conditions:
1. The student who is unable to complete the first half of a session shall be entitled to a full refund of fees.

2. The student who has completed the first half or more of a given session may receive credit or partial credit and proportional refund of fees.

   The student shall apply at the Registrar’s Office for confirmation of his or her eligibility to receive credit. The Registrar shall advise the student concerning withdrawal, refund, or credit procedures.

   If the Registrar confirms eligibility for credit, the student may present the confirmation to the appropriate academic dean. The academic dean, the chairperson of the department in which the student is enrolled, and the instructor of the class shall determine the amount of credit which has been earned. The academic dean reports the amount which has been earned, in writing, to the Registrar and the instructor shall submit the appropriate grade at the end of the semester.

   Students who enlist or volunteer for military service during the session must withdraw from the university according to regular withdrawal and refund procedures.
**Requirements for Graduation**

**Summary of Graduation Requirements**
Each candidate for a baccalaureate degree shall:

1. Matriculate as a regular undergraduate student.
2. Fulfill the requirements prescribed on a degree.
3. Complete a major, or a major and a minor, or minors as indicated on the chosen degree and authorized in consultation with the departmental advisors.
4. File application for graduation with Undergraduate Academic Services early in the enrollment period or semester in which the student will complete 86 semester hours of credit, but not later than the beginning of the semester or session prior to the semester or session in which he or she plans to graduate.
5. Present 30 semester hours of credit earned at Central Michigan University. Fifteen of the 30 hours must be taken on campus. Ten of the last 30 semester hours of credit prior to graduation must be taken at this university in on-campus or off-campus courses.
6. Fulfill the General Education Requirements including University Program and Competency Requirements. Students may not take more than two courses or seven hours for CR/NC in the University Program. Students must earn a minimum cumulative grade point average of 2.00 in University Program courses in order to graduate.
7. Present a cumulative point average of 2.00 (C) or higher and a point average of 2.00 (C) or higher in major(s) and minor(s).
8. Present at least 40 semester hours in courses numbered 300 or above.
9. Present a minimum of 124 semester credit hours which may include a maximum of six hours RLA and/or PED activities.

Sixty semester credit hours must be earned at an accredited four-year degree-granting institution or from a foreign university or college approved by the government or the official regulating agency of the country in which the university or college is located. None of these sixty hours may include physical education activity courses. The Office of Undergraduate Academic Services makes the decision regarding the acceptability of transfer credits according to the Transfer Credit Policy (See index). Appeals of the decisions of the Office of Undergraduate Academic Services may be filed with the Board of Appeals.

Candidates for a teaching certificate must file an application to a Teacher Education Program. Refer to Teacher Certification section for details.

**Bulletin Used to Determine Graduation Requirements**
Graduation requirements for a baccalaureate degree are based on the regulations and requirements printed in the Central Michigan University Bulletin in effect at the time of a student’s initial registration at a regionally accredited two- or four-year college or university or from a foreign university or college approved by the government or the official regulating agency of the country in which the college or university is located. A Bulletin published after initial registration may be chosen by the student when it is to his or her advantage. The time limitation on this provision is that no student may graduate under the requirements of a Bulletin published more than seven calendar years prior to the date of graduation.

The University Bulletin covers a 12-month period, July 1 through June 30. Courses, majors, minors, programs, and degrees in this catalog are subject to change without notice and may not be available in the future.

**Residence Credit**
Candidates for a bachelor’s degree must earn at least 30 semester hours of credit at this institution. Of these 30 hours, a minimum of 15 semester hours must be earned on campus. The remaining 15 hours may be taken in off-campus courses.

At least 10 of the last 30 semester hours of credit prior to graduation must be earned from this institution in on-campus or off-campus courses.

Candidates for a short course certificate must earn at least one-fourth of the credits required on the program at this university.

Candidates who already hold a bachelor’s degree and are seeking a provisional certificate must earn at least 15 semester hours of credit at this institution.

Correspondence course credits, CLEP credit, and hours earned by Credit by Examination may not be applied to meet any of the hours required in residence.

**Distance Learning Courses**
Courses in distance learning format (e.g. web-based courses, learning packages, and other non-face-to-face formats for delivering instruction) may be used to complete degree requirements unless otherwise specifically excluded. CMU courses and programs approved for distance learning delivery (as well as restrictions) are given in the descriptions of courses, majors, minors and degrees in this Bulletin.

**Application for Graduation**
Degrees are not awarded automatically upon completion of scholastic requirements. It is recommended undergraduate students file an application for graduation in the office of Undergraduate Academic Services, Warriner Hall 123 or the Student Services Court, during the semester in which 86 semester hours of credit are completed.

Applications are processed in the order they are received for each graduation. Submission should be based on the following timeline: September 15 for May graduation, January 15 for August graduation, and April 15 for December graduation.

There is no application fee. For additional information call (989) 774-3504.

**Conferring of Degrees**
Candidates completing requirements for a degree in December or May will participate in their respective commencement ceremonies. Candidates completing requirements for a degree in August will be invited to participate in the December commencement ceremony. Diplomas will be mailed to all students on the graduation list who satisfactorily complete all graduation requirements.
Two Degrees
A student may apply for a second baccalaureate degree from Central Michigan University if the degrees are different and the pertaining criteria are met.

To earn two baccalaureate degrees from Central Michigan University at the same time, a student must:
1. Satisfy all requirements for each of the two degrees, including graduation and degree requirements.
2. Present a minimum of 154 semester hours of acceptable credit.
3. Present a minimum of 60 semester hours from Central Michigan University, of which at least 30 hours must have been earned on campus.

To earn a second baccalaureate degree from Central Michigan University after having earned the first degree, a student must:
1. Satisfy all requirements for the second degree, including graduation and degree requirements.
2. Present a minimum of 30 semester hours of credit from Central Michigan University beyond those required for the first degree. The additional hours need not be taken after completion of requirements for the first degree.
3. Present a minimum of 60 semester hours from Central Michigan University, of which at least 30 hours must have been earned on campus.

To earn a second baccalaureate degree after earning the first degree at another regionally accredited, four-year, degree-granting institution or from a foreign university or college approved by the government or the official regulating agency of the country in which the university or college is located, a student must:
1. Satisfy all requirements for the second degree, including graduation and degree requirements.
2. Present a minimum of 30 semester hours of additional credit from Central Michigan University, of which at least 15 hours must have been earned on campus.

Degree Program for Pre-professional Students
A degree program for students on a combined pre-professional program at Central Michigan University and an accredited professional school has been approved as follows:

A student who has pursued a pre-professional course at Central Michigan University for a period of three years, and completed a minimum of 94 semester hours of credit prior to entering a professional school, and completed a B.A. or B.S. degree, with a major and minor as authorized, will be allowed to graduate from Central Michigan University by submitting one year of satisfactory work consisting of not less than 30 semester hours from a professional school accredited by the North Central Association or by the official accrediting agency for the professional school.

Requirements for Short Course Certificates
The candidate for a short course certificate shall:
1. matriculate as a regular student;
2. present the credits indicated for such certificate;
3. have satisfactorily completed at least one-fourth of the credit required for the certificate in residence on campus;
4. have earned five of the last 15 hours of credit at this institution in on- or off-campus courses, and
5. present a cumulative grade point average of 2.00 or higher.

Outstanding Scholarship Recognition
The university recognizes the importance of high scholarship and seeks to stimulate and encourage students in high achievement.

Semester Recognition
The Dean’s List is published by the Dean of Students after each semester naming students who have achieved a high scholastic standing for that semester. To qualify for this recognition a student must meet all of the following conditions:
1. have registered for and completed 12 or more letter-graded hours of CMU credit during the semester; and
2. have earned a semester grade point average of 3.50 or higher.

The President’s List honors those students on the Dean’s List who achieved a 4.00 semester grade point average.

Graduation with Honors
In order to be graduated with honors a student must have, at the beginning of his or her last required session, a total cumulative point average at Central Michigan University as indicated in the following table and must at that time have completed 45 hours of residence of which 33 hours must be letter-graded credit.

<table>
<thead>
<tr>
<th>Point Average</th>
<th>Honors Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.90-4.00</td>
<td>Summa Cum Laude</td>
</tr>
<tr>
<td>3.75-3.89</td>
<td>Magna Cum Laude</td>
</tr>
<tr>
<td>3.50-3.74</td>
<td>Cum Laude</td>
</tr>
</tbody>
</table>

Appeal Process for Graduation with Honors
A student who has attained, at the end of his or her final semester, 45 hours of residence of which 33 hours are letter-graded credit and has a GPA that now gives him or her honors or a higher honors classification may appeal for this new honors classification. The student must complete a Graduation Honors Appeal Form and a Diploma Replacement Form and submit the established fee to Undergraduate Academic Services. A student must appeal no later than the Friday before the next commencement following his or her graduation.
Standards Leading to Teacher Certification

Introduction

Students seeking to enter the Teacher Education program at Central Michigan University are screened using multiple criteria related to teacher excellence and the CLEAR model for teacher education. The selection criteria assess characteristics appropriate for students pursuing a professional teaching practice that is Content–or knowledge–driven, LEArner-centered and Reflective/Relevant to the multiple roles and contexts of the professional educator. Once a student is admitted, cognitive and affective skills are both developed and monitored throughout the teacher education experience, which stresses faculty mentoring of all prospective teachers.

Excellent teachers demonstrate an interest in students, an ability to relate to and communicate with diverse students in varied ways, as well as the ability to motivate and facilitate learning. Teacher candidates at CMU must be learner-centered and able to communicate both in writing and in face-to-face interactions with spontaneity and clarity. In addition, students must demonstrate the professional dispositions appropriate to the field of teaching in order to be recommended for certification. Such dispositions include values, commitments, and professional ethics that influence behaviors toward students, families, colleagues, and all members of the learning community and affect student learning, motivation, and development as well as the educator’s own professional growth and development (NCATE). As an NCATE accredited institution, only qualified candidates will be recommended for certification.

The Three Cycles of Candidacy

There are three cycles for teacher education candidates to complete in order to fulfill the requirements leading to teacher certification. Students must follow the requirements in the Teacher Education Student Handbook and the requirements of the Michigan Board of Education in effect at the time they complete the application process.

Cycle I: Admission Candidacy

Each student who expects to earn either an Elementary Provisional Certificate or a Secondary Provisional Certificate must file an application for admission into teacher education. Application forms and related information can be found in the Teacher Education Student Handbook and on the Center for Student Services website at www.ehs.cmich.edu/css. Cycle I is a two-part process, acceptance for candidacy status and admission to the teacher education program. Upon completion of all requirements for Cycle I, the student will be placed on a list that is ranked in order by composite scores. Admission to teacher education will occur twice a year, once in September and once in February, and will be based upon the student’s composite score. When enrollment has to be limited in teacher education, rank order scores will be used to determine admission to the program. Therefore, students who have met all requirements for admission may not be admitted if their composite scores are not sufficiently high to be above the cutoff score.

Students must be admitted to the teacher education program before being eligible to enroll in professional education courses that have “admission to teacher education” as a prerequisite. Admission to the program is valid for five years from the date of admission to teacher education. Changes mandated by the Michigan Department of Education may become effective at any time in a student’s education program.

Cycle II: Continuing Candidacy

This point in the teacher education program has been established as a method to verify candidates’ ongoing growth and development in the teacher education program. By fulfilling all competencies listed in the EHS Teacher Education Student Handbook and Student Teaching Handbook, candidates are eligible to continue in the program and move to their student teaching experiences. Cycle II includes, but is not limited to items such as departmental approval of all majors and minors, successful completion of all professional education courses, registration with CMU Career Services, successful completion of an interview with EDU 458 faculty, and completion of a specified mid-tier experience. For specific requirements, consult the EHS Teacher Education Student Handbook and the EHS Student Teaching Handbook.

Cycle III: Exit Candidacy

This point in the teacher education program is intended as a verification of eligibility related to graduation and certification. The Cycle III interview normally takes place during the student teaching semester. For specific requirements and details about Cycle III, consult the EHS Teacher Education Student Handbook.

Conflict Resolution and Appeal Procedure

1. A student who has a complaint regarding teacher certification decisions should make known his or her complaint as soon as possible, but in no case later than sixty days after the beginning of the next regular semester. Any exception to the time limitation shall be for unusual and most compelling reasons. At each step of the process, the student will be given the opportunity to present relevant information, and the reasons for the decision will be explained to the student.

2. A student who feels that arbitrary and/or capricious decisions have been made in evaluating admission, or continuing requirements for the teacher education program, or in the recommendation for certification, should seek counsel and advice from his or her professional advisor. The advisor will attempt to resolve the conflict.

3. If the student is still not satisfied, he or she may request in writing a consultation with the Director of Professional Education. In the absence of the Director of Professional Education, the student’s request in writing should be sent to the Dean of the College of Education and Human Services. In such cases, the Dean shall act in place of the Director.

4. If the student is not satisfied with the decision of the Director of Professional Education, the student may submit an appeal in writing to the Professional Education Selection, Admission and Retention Committee. The Professional Education Selection, Admission and Retention Committee has the authority to overrule decisions made by the Director of Professional Education regarding admission or continuing requirements for the teacher education program or in the recommendation for certification. Appeal decisions made by the Professional Education Selection, Admission and Retention Committee are final.
Teacher Certification

Policy Regarding Teacher Certification and/or Endorsement for Postbaccalaureate Students

A postbaccalaureate student is defined as a student with a non-teaching bachelor’s degree from a four-year regionally accredited institution who is seeking teacher certification, a student with a teaching degree who is seeking teacher certification and/or endorsement in an additional area, or a student with a teaching degree who is seeking provisional or professional certification and/or endorsement in an additional area.

1. Postbaccalaureate students must follow the “Standards Leading to Teacher Certification” as published in the Bulletin and meet Michigan Department of Education requirements listed in the Teacher Education Student Handbook.

2. Postbaccalaureate students must have majors and/or minors signed by a departmental advisor in the department offering the major or minor. Course substitutions may be approved only by the departmental advisor.

3. Postbaccalaureate students must complete all Professional Education courses and other degree/certification requirements for either elementary or secondary students as published in the Bulletin.

4. The Teacher Education and Professional Development Department (TEPD) will submit a list of the names of all students applying for student teaching the following semester to each student’s major and minor department for approval or denial.

5. The EHS Center for Student Services will audit the signed major and minor of all students to certify that they have met all the requirements before recommending them for certification.

6. Certification will be recommended for those teaching areas in which CMU presently offers a major or minor.

Validity of Provisional Certificate

A current Elementary Provisional Certificate is valid for teaching all subjects in grades kindergarten through five, and major and minor fields in grades six through eight (upon completion of the required subject area tests) as specified on the certificate and kindergarten through eight in a self-contained classroom. It is valid for six years and may be renewed for three years, provided the applicant presents nine semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate. A second three-year renewal may be granted provided the applicant presents 18 semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate.

A current Secondary Provisional Certificate is valid in subject matter fields in grades six through twelve in which the applicant has completed a major(s) or minor(s) as specified on the certificate. It is valid for six years and may be renewed for three years provided that the applicant presents nine semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate. A second three-year renewal may be granted provided the applicant presents 18 semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate.

Requirements for Professional Education Certification

Professional Education Certificate: The Elementary or Secondary Professional Education Certificate may be issued to a candidate who has met the following requirements:

1. Has submitted the appropriate application.

2. Has taught successfully for three years, according to the validity of his or her provisional certificate.

3. Has presented evidence that he or she has completed 18 semester hours in a planned course of study beyond the issuance date of the initial certificate. This advanced course of study must be applicable to the applicant’s professional development and signed with an advisor. A copy of this program must be on file in the EHS Center for Student Services.

4. Elementary applicants for the Professional Education Certificate must have completed 6 semester hours in the methods of teaching reading, and secondary applicants must have completed 3 semester hours in the methods of teaching reading. (If the required reading credit was completed prior to receiving the Provisional Certificate, it need not be repeated within the required credit for the Professional Education Certificate.)

5. Send official transcripts directly to the EHS Center for Student Services.

Procedures for Professional Education Certification

The Candidate Shall:

1. Submit a planned program of study beyond the bachelor’s degree signed by the advisor and candidate.

A. If the candidate has been admitted to a master’s degree program, he/she may submit a copy of the Authorization of Graduate Degree Program, signed by the advisor, with the application as evidence that the student is pursuing a “planned course of study beyond the bachelor’s degree.”

B. A candidate who is not pursuing a graduate degree or who has initially been granted non-degree status in graduate school, or who is pursuing undergraduate study must obtain approval for a “planned course of study” beyond the bachelor’s degree from an advisor in the appropriate department by contacting the EHS Center for Student Services. The student is expected to have a signed program on file before registering for his or her first coursework at Central Michigan University.

2. Obtain an application for a Professional Education Certificate from the EHS Center for Student Services, 204 Ronan Hall, when the last of the requirements are in progress.

3. Fill out the application and return it to the EHS Center for Student Services.

4. Return a copy of the provisional certificate.

5. Send official transcripts directly to the EHS Center for Student Services for any of the 18 hours of credit not earned at Central Michigan University, including an official transcript of the reading requirement when appropriate.

The University Will:

1. Evaluate the qualifications of the candidate to determine whether he or she satisfies requirements for a Professional Education Certificate.

2. Obtain a statement from an appropriate school official verifying the candidate has three years of successful teaching experience within the validity and grade level of the provisional teaching certificate.

3. Recommend the candidate to the State Department of Education for a Professional Education Certificate if his or her qualifications are found satisfactory.

4. Record issuance of the Professional Education Certificate on the student’s permanent record when notified by the State Department of Education.
Professional Education Certificate Renewal

1. A Professional Education Certificate is valid for 5 years and shall be renewed at the end of the 5-year period for an additional 5 years upon the applicant's completion of 6 semester hours of academic credit from an approved teacher preparation institution, or the submission of evidence of the equivalent in continuing education units completed through professional development programs or professional activities defined and approved by the State Board. Submission is made to the Michigan Department of Education.

2. For persons who do not complete the requirements of subrule (1) of this rule, the certificate expires on June 30 of the year of the certificate's expiration.

3. To reinstate an expired Professional Education Certificate, a person shall apply to the State Board for a reinstatement and shall present evidence of the completion of the 6 semester hours, or their equivalent, in approved professional development programs or approved professional activities specified in subrule (1) of this rule.

4. Credit completed out of state shall be in an approved teacher education institution and approved by the Michigan State Board of Education prior to enrolling in a course.

Certificate Fee

Public Act 339 of 1988 requires candidates for a teaching certificate or school psychologist certificate to sign a certification agreement and to pay a fee within 30 days when billed by the Michigan Department of Education.
Your Degree Plan

The undergraduate program of study at CMU consists of at least 124 credit hours of academic work completed according to a planned program. The degree plan you choose to follow will be largely influenced by your choice of a major and your decision to earn or not to earn teacher certification. As you complete your degree requirements you will need to read carefully with your advisor the sections in this Bulletin entitled:

- Degree Plan, page 97
- University Program, page 119
- Competency Requirements, page 124
- Requirements for Graduation, page 92
- Undergraduate Majors and Minors, page 126

General Education Requirements

You should include in your beginning studies the General Education Requirements which consist of the University Program and Competency Requirements.

If you are pursuing teacher certification, you will also need to complete Teacher Certification Requirements. You must immediately and carefully read Standards Leading to Teacher Certification (page 94). Students interested in teaching in the elementary and secondary grades may contact the College of Education and Human Service Center for Student Services (RN 203) for pre-admission advising. The Teacher Education Student Handbook, which answers many student questions about the program, may be obtained from the University Center Bookstore.

Other Degree Requirements

This coursework will provide a plan of study appropriate to a particular degree outside of the major and minor field(s).

Specialized Studies (Major and Minor)

Majors and minor(s) (if any) have their own requirements. Each is detailed under the department that offers it. A list of all majors and minors offered and the degrees to which they are applicable can be located on page 127.

Professional Studies Requirements and Electives

Several degrees contain a block of courses to satisfy professional studies requirements. An example may be found under the requirements for the B.S. in Education degree. Read these sections carefully and note their applicability to the degree plan which you have chosen.

Several degrees also contain electives which are blocks of credit hours that are completely unspecified. Students pursuing those degrees may elect to take courses in any department of the university to complete the minimum number of credit hours required for graduation.
This degree indicates significant exploration and achievement in the liberal arts, including studies in a foreign language, humanities, natural sciences, and social sciences.

**General Education Requirements**

(30-42 hours)

See General Education Requirements on page 119-125.

**Other B.A. Degree Requirements**

(45-61 hours)

**Foreign Language Requirement**

Completion of the 202 course in any foreign language. This requirement may also be satisfied by passing the 202 examination or equivalent. Two foreign language courses from the University Program may be counted toward satisfying this requirement.

**Area Requirements**

Courses numbered 100 or above taken to satisfy University Program, Competency, or Specialized Studies requirements may be counted toward fulfilling the area requirements below. Because many courses may be used to fulfill two requirements, the number of total hours needed for “Other Degree Requirements” may be reduced from the 45-61 listed here by as much as 30 hours. Normally then, “Other Degree Requirements” represents a minimum of 15 hours of area studies in addition to the 30 hours of University Program.

**Area 1 - Humanities (15 hours)**

To satisfy the humanities requirement you must select at least 8 hours from one discipline, at least 3 hours from a second, and at least 3 hours from a third.

Any course in the following:
- American Studies (AMS), Art (ART), English (ENG), French (FRN), German (GER), Greek (GRK), Humanities (HUM), Japanese (JPN), Latin (LAT), Music (MUS), Ojibwe (OJB), Philosophy (PHL), Religion (REL), Russian (RUS), Spanish (SPN)

These courses also fulfill Area 1 requirements:
- Broadcast and Cinematic Arts Courses
  - BCA 288 - History and Appreciation of the Cinema 3(2-2)
  - BCA 290 - French Film and Other Media 3(3-0)
  - BCA 300 - African and African American Film 3(3-0)
  - BCA 503 - Critiquing Mass Media 3(3-0)

**Honors Courses**

- HON 110 - Speaking and Writing with Critical Awareness 6(6-0)
- HON 130 - Western Cultural and Intellectual Traditions 3-6(Spec)

**Theatre and Interpretation Courses**

- TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
- TAI 175 - Appreciation of the Theatre 3(3-0)
- TAI 182 - Acting 1(3-0)
- TAI 282 - Acting II 3(3-0)
- TAI 305 - Studio: Acting/Performance 1-4(Spec)
- TAI 306 - Studio: Directing 1-4(Spec)
- TAI 307 - Studio: Movement 1-4(Spec)
- TAI 308 - Studio: Script Creation 1-4(Spec)
- TAI 313 - Studio: Scenery Design 1-4(Spec)
- TAI 315 - Studio: Lighting Design 1-4(Spec)
- TAI 371 - Readers Theatre 3(3-0)
- TAI 373 - Oral Interpretation for Children 3(3-0)
- TAI 376 - Interpretation of Drama 3(3-0)
- TAI 377 - Costuming I 3(3-0)
- TAI 380 - Musical Theatre History 3(3-0)
- TAI 382 - Acting III 3(3-0)
- TAI 460 - BFA Capstone Project 3(0-6)
- TAI 477 - Scene Design 3(3-0)
- TAI 481 - Directing 3(3-0)
- TAI 490 - Independent Study 1-4(Spec)
- TAI 569 - History of American Theatre 3(3-0)
- TAI 570 - Oral Interpretation of Prose Fiction 3(3-0)
- TAI 571 - Oral Interpretation of Poetry 3(3-0)
- TAI 572 - Special Topics in Oral Interpretation 1-9(Spec)
- TAI 573 - Seminar: Interpretative Reading 3(3-0)
- TAI 574 - History of Drama and Theatre I 3(3-0)
- TAI 575 - History of Drama and Theatre II 3(3-0)
- TAI 577 - Special Topics in Technical Theatre 1-9(Spec)
- TAI 578 - Special Topics in Theatre 1-9(Spec)
- TAI 579 - Costume Design and Construction 3(3-0)
- TAI 584 - Field Course in Theatre 1-4(Spec)
- TAI 585 - Creative Dramatics 3(2-2)
- TAI 586 - Playwriting 3(3-0)
- TAI 588 - Contemporary Theatre 3(3-0)
- TAI 589 - Theatre Workshop 2-6(Spec)
- TAI 590 - Summer Repertory Theatre 3(3-0)

**Note:** Courses used to satisfy the foreign language requirement may not also be used to satisfy this requirement. Other foreign language courses may be counted for this area.

**Area 2 - Natural Sciences (15 hours)**

To satisfy the natural sciences requirement you must select at least 8 hours from one discipline, at least 3 hours from a second, and at least 3 hours from a third.

Any course in the following:
- Astronomy (AST), Biology (BIO), Chemistry (CHM), Earth Science (ESC), Geology (GEL), Meteorology (MET), Mathematics (MTH), Physical Science (PHS), Physics (PHY), Science (SCI), Statistics (STA)

These courses also fulfill Area 2 requirements:
- Anthropology: Physical Anthropology Courses
  - ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
  - ANT 173 - Laboratory in Physical Anthropology 1(0-2)
  - ANT 342 - Forensic Anthropology 4(3-2)
  - ANT 347 - Human Evolution 3(3-0)
  - ANT 351 - The Race Concept and Human Variation 3(3-0)
  - ANT 356 - Primate Behavior 3(3-0)

**Communication Disorders Courses**

- CDO 335 - The Anatomy and Physiology of Speech and Hearing 4(4-0)
- CDO 463 - Introduction to Acoustic Phonetics 2(2-0)

**Computer Science Courses**

- CPS 110 - Information Technology Programming I 3(3-0)
- CPS 120 - Microcomputer Applications 3(3-0)
- CPS 150 - FORTRAN Programming 2(2-0)
- CPS 180 - Principles of Computer Programming 3(3-0)
- CPS 181 - Introduction to Data Structures 3(3-0)
Degree Requirements

CPS 210 - Assembly Language and Computer Organization 3(3-0)
CPS 280 - Alternative Programming Languages 1-6(Spec)
CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
CPS 360 - Computer Design and Architecture 3(3-0)
CPS 370 - File Manipulation Techniques 3(3-0)
CPS 380 - Microcomputer Architecture 3(3-0)
CPS 410 - Software Engineering 3(3-0)
CPS 450 - Programming Language Concepts 3(3-0)
CPS 468 - Systems Programming and Software 3(3-0)
CPS 530 - Simulation of Discrete Event Systems 3(3-0)
CPS 541 - Databases 3(3-0)
CPS 540 - Digital Computer Design 3(3-0)
CPS 549 - Computer Graphics 3(3-0)

Geography: Physical Geography Courses
GEO 334/BIO 334 - Soil Science 3(2-2)
GEO 105 - Physical Geography 3(2-2)
GEO 210 - Landforms 3(2-2)
GEO 310 - Surface Hydrology 3(2-2)
GEO 355 - Biogeography 3(3-0)
GEO 355 - Environmental Catastrophes 3(3-0)

Honors Courses
HON 140 - Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)

Human Environmental Studies Courses
HEV 361 - Experimental Foods 3(2-2)
HEV 370 - Nutrition 3(3-0)
HEV 473 - Advanced Nutrition 4(4-0)

Area 3 - Social Sciences (15 hours)
To satisfy the social sciences requirement you must select at least 8 hours from one discipline, at least 3 hours from a second, and at least 3 hours from a third.

Any course in the following:
Anthropology (ANT) (All ANT courses except those included in Area 2); Economics (ECO); Geography (GEO) (All GEO courses except Physical Geography courses listed in Area 2); History (HST); Political Science (PSC); Psychology (PSY); Sociology (SOC)

These courses also fulfill Area 3 requirements:

Communication Disorders Courses
ASL 101 - American Sign Language, Level I 3(3-0)
CDO 130 - Normal Speech and Language Acquisition 3(3-0)

Honors Courses
HON 120 - The Individual and Community in Modern Society 6(6-0)

Human Environmental Studies Courses
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
HEV 212 - The Family in Cultural Perspective 3(3-0)
HEV 252 - Dress and Culture 3(3-0)
HEV 306 - Human Growth and Development: Adolescence 3(3-0)
HEV 510 - Human Growth and Development: Seminar 3(3-0)

Specialized Studies
(30-66 hours)

Major: Any university approved major except the Communication Disorders major, Health Administration major, Meteorology major, and majors in the College of Business Administration.

Minor: Optional, however certain majors require a particular minor or one chosen from a list of acceptable minors. See departments for major requirements.

Electives
The number of elective hours will vary depending upon the requirements for the major.

Minimum Total for Graduation: 124 hours

• To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
• Please note: the combination of some majors and minors may require more than 124 hours for graduation.
• Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
• No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
• You should read the Requirements for Graduation in this Bulletin for a complete description.
This degree indicates achievement in one or more areas of applied knowledge.

**General Education Requirements**
**(30-42 hours)**
See General Education Requirements on page 119-125

**Specialized Studies**
**(50-100 hours)**
Major in one of the following fields (30-72 hours):
- Apparel Merchandising and Design Major: Apparel Design Concentration
- Apparel Merchandising and Design Major: Apparel Merchandising
- Art Major: Three Dimensional Concentration
- Art Major: Two Dimensional Concentration
- Athletic Training/Sports Medicine Major
- Broadcast & Cinematic Arts Major
- Child Development Major: Early Childhood Concentration
- Child Development Major: General Concentration
- Communication Major: Interpersonal Communication Concentration
- Communication Major: Organizational Communication Concentration
- Communication Disorders Major
- Construction Management Major
- Entrepreneurship Major
- Family Studies Major
- Foodservice Administration Major
- Health Administration Major
- Health Fitness In Preventive and Rehabilitative Programs Major
- Industrial Technology Management Major: Automotive Technology Concentration
- Industrial Technology Management Major: Manufacturing Technology Concentration
- Industrial Technology Management Major: Mechanical Design-Technology Concentration
- Integrative Public Relations
- Interior Design Major
- Public Health Education & Health Promotion Major
- Recreation: Commercial Recreation & Facility Management Concentration
- Recreation: Community Leisure Services Administration Concentration
- Recreation: Outdoor and Environmental Recreation Concentration
- Recreation: Therapeutic Recreation Concentration
- Sport Studies Major
- Women’s Studies Major

**Note:** Certain majors require a particular minor or one chosen from a list of acceptable minors. See departments for major requirements.

**Note:** The Entrepreneurship major must follow the restrictions of AACSB accreditation and must complete at least 50% of credits for graduation outside the College of Business Administration. The 27-hour rule does not apply to the Entrepreneurship Major.

**Minor in any university approved minor or internship (20-30 hours):**
Internship must be sponsored by the department of the major. Administration and registration may be through related disciplines but the responsibility of the internship requirements, parameters, etc., must be that of the department of the major.

**Electives**
The number of elective hours will vary depending upon the requirements for the major and minor. No more than 8 hours of electives taken from the same department as the student’s major field will count towards graduation requirements.

**Minimum Total for Graduation: 124 hours**
- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the requirements for graduation in this Bulletin for a complete description.
This degree indicates significant exploration and achievement in the fine arts. Students may either specialize professionally in a selected fine arts field or study extensively in one field while gaining a broad background in the other fine arts.

General Education Requirements
(30-42 hours)
See General Education Requirements on page 119-125

Specialized Studies
(70-78 hours)
Major in one of the following:
- Art Major: Graphic Design Concentration (78 hours)
- Art Major: Three Dimensional Concentration (78 hours)
- Art Major: Two Dimensional Concentration (78 hours)
- Music Theatre Major (70 hours)
- Broadcast and Cinematic Arts Major (70 hours)
  Major (30-45 hours) with Fine Arts Electives (25-40 hours) outside the major, authorized by the major advisor.
- Theatre and Interpretation Major (70 hours)
  Major (30-45 hours) with Fine Arts Electives (25-40 hours) outside the major, authorized by the major advisor.

Minor: optional

Electives
The number of elective hours will vary depending upon the requirements for the major.

Minimum Total for Graduation: 124 hours
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
This degree is designed for those students whose goals and learning objectives require more flexibility than is provided by the more conventional structured programs. In consultation with a faculty advisor the student plans an academic program which must be submitted to the Committee on Individualized Studies for approval. **Note:** This degree may not satisfy requirements for admission to some graduate programs or for professional employment.

**General Education Requirements**  
(30-42 hours)  
See General Education Requirements on page 119-125

**Area Studies**  
(18 hours)  
In addition to University Program Requirements, 18 hours of area requirements must be met as follows:
- 6 hours in Humanities
- 6 hours in Natural Sciences
- 6 hours in Social Sciences.

**Specialized Studies**  
Major in Individualized Studies

**Minimum Total for Graduation: 124 hours**
- **Please note:** the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- **You should read the Requirements for Graduation in this Bulletin for a complete description.**

**Special procedures for earning this degree:**
The B.I.S. student selects a faculty advisor who assists in planning an academic program which is submitted to the Committee on Individualized Studies for preliminary approval at least 45 semester hours before graduation. The program plan must include the goals and objectives of the course of study and methods of attaining them, including such things as senior papers and written and oral examinations.

A final plan, including a complete list of courses, must be approved by the Committee on Individualized Studies 30 semester hours prior to graduation.

Students are required to earn at least 30 of the final 45 semester hours of credit on the CMU campus.

Further information concerning the Individualized Studies Program, including the forms for applying for preliminary and final approval for the degree program, are available from the Office of Academic Affairs, Warriner 312 or call 989-774-3631 to arrange an appointment for guidance.
Bachelor of Music (B.Mus.)

This degree is awarded upon completion of a professional program for students aspiring to careers in musical performance or theory/composition.

General Education Requirements (30-42 hours)
See General Education Requirements on page 119-125

Specialized Studies (89 hours)
- Major in Music with a specific concentration:
  - Music: Orchestral Instruments Major
  - Music: Organ Major
  - Music: Piano Major
  - Music: Theory/Composition Major
  - Music: Voice Major
  A minor is optional.

Electives
The number of elective hours will vary depending upon the hours completed in General Education.

Minimum Totals for Graduation: 124 hours
- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.

Bachelor of Music Education (B.Mus.Ed.)

Completion of this degree will qualify a student for recommendation to the Michigan State Board of Education for a Secondary Provisional Certificate which will permit the holder to teach music in grades K-12. All students pursuing this degree should see the section on Admission to Teacher Education Programs.

General Education Requirements (30-42 hours)
See General Education Requirements on page 119-125

Other Degree Requirements (0-10 hours)
Courses selected outside the major or minor.

Professional Education Requirements (28 hours)
- EDU 107 - Introduction to Teaching 3(3-1)
- EDU 310 - Psychological Foundations of Education 3(3-0)
- EDU 432 - Student Teaching Seminar 3(3-0)
- EDU 450 - Content Area Literacy 3(3-0)
- EDU 458 - Student Teaching 1-10(Spec)
- EDU 495 - Foundations of Education 3(3-0)
- SPE 504 - Teaching Students in Inclusive Settings 3(3-0)

Specialized Studies (70 hours)
In order to complete this degree a student must major in Music Education with either the Instrumental, Choral, or General option. Both the major and the minor must be in the same option.

Majors:
- Music Education Major: Choral Option
- Music Education Major: Instrumental Option
- Music Education Major: General Option

Minors:
- Music: Choral Minor
- Music: Instrumental Minor
- Music: General Music Minor

Note: A minimum 2.7 GPA (B-) must be earned in all teaching majors and minors.

Minimum Total for Graduation: 134 hours
- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- You must earn a minimum overall grade point average of 2.70 in order to graduate with the Bachelor of Music Education degree.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
This degree indicates significant exploration and achievement in the liberal arts, including humanities but with an emphasis on natural or social sciences.

Two plans of study (A and B) are available on the Bachelor of Science degree.

**General Education Requirements**
(30-42 hours)

See General Education Requirements on page 119-125

**Area Requirements (24 hours)**

In addition to the University Program requirements, each area requirement below must be completed. Courses taken to satisfy the University Program Requirements or Competency Requirements may NOT be used to satisfy area requirements.

Students must select the same alternative (A or B) in all three of the following areas.

**Area 1 - Humanities (6 hours)**
(Alternative A - 6 hours, Alternative B - 6 hours)

**Any course in the following disciplines:**
- American Studies (AMS);
- ART (ART);
- English (ENG);
- French (FRN);
- German (GER);
- Greek (GRK);
- Humanities (HUM);
- Japanese (JPN);
- Latin (LAT);
- Music (MUS);
- Ojibwe (OJB);
- Philosophy (PHL);
- Religion (REL);
- Russian (RUS);
- Spanish (SPN)

These courses also fulfill Area 1 requirements:

- **Broadcast and Cinematic Arts Courses**
  - BCA 288 - History and Appreciation of the Cinema 3(2-2)
  - BCA 290 - French Film and Other Media 3(3-0)
  - BCA 300 - African and African American Film 3(3-0)
  - BCA 503 - Critiquing Mass Media 3(3-0)

- **Honors Courses**
  - HON 110 - Speaking and Writing with Critical Awareness 6(6-0)
  - HON 130 - Western Cultural and Intellectual Traditions 3(3-6)

- **Theatre and Interpretation Courses**
  - TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
  - TAI 175 - Appreciation of the Theatre 3(3-0)
  - TAI 182 - Acting I 3(3-0)
  - TAI 282 - Acting II 3(3-0)
  - TAI 305 - Studio: Acting/Performance 1-4(Spec)
  - TAI 329 - Studio: Directing 1-4(Spec)
  - TAI 307 - Studio: Movement 1-4(Spec)
  - TAI 309 - Studio: Script Creation 1-4(Spec)
  - TAI 313 - Studio: Scenery Design 1-4(Spec)
  - TAI 315 - Studio: Lighting Design 1-4(Spec)
  - TAI 371 - Readers Theatre 3(3-0)
  - TAI 373 - Oral Interpretation for Children 3(3-0)
  - TAI 376 - Interpretation of Drama 3(3-0)
  - TAI 377 - Costuming I 3(3-0)
  - TAI 380 - Musical Theatre History 3(3-0)
  - TAI 382 - Acting III 3(3-0)
  - TAI 460 - BFA Capstone Project 3(0-6)
  - TAI 477 - Scene Design 3(3-0)
  - TAI 481 - Directing 3(3-0)
  - TAI 490 - Independent Study 1-4(Spec)
  - TAI 569 - History of American Theatre 3(3-0)
  - TAI 570 - Oral Interpretation of Prose Fiction 3(3-0)
  - TAI 571 - Oral Interpretation of Poetry 3(3-0)
  - TAI 572 - Special Topics in Oral Interpretation 1-9(Spec)
  - TAI 573 - Seminar: Interpretative Reading 3(3-0)
  - TAI 574 - History of Drama and Theatre I 3(3-0)
  - TAI 575 - History of Drama and Theatre II 3(3-0)
  - TAI 577 - Special Topics in Technical Theatre 1-9(Spec)
  - TAI 578 - Special Topics in Theatre 1-9(Spec)
  - TAI 579 - Costume Design and Construction 3(3-0)
  - TAI 584 - Field Course in Theatre 1-4(Spec)
  - TAI 585 - Creative Dramatics 3(2-2)
  - TAI 586 - Playwriting 3(3-0)
  - TAI 588 - Contemporary Theatre 3(3-0)
  - TAI 589 - Theatre Workshop 2-6(Spec)
  - TAI 590 - Summer Repertory Theatre 3(3-0)

**Area 2 - Natural Sciences (6-12 hours)**
(Alternative A - 12 hours, Alternative B - 6 hours)

**Any course in the following disciplines:**
- Astronomy (AST);
- Biology (BIO);
- Chemistry (CHM);
- Earth Science (ESC);
- Geology (GEL);
- Meteorology (MET);
- Mathematics (MTH);
- Physical Science (PHS);
- Physics (PHY);
- Science (SCI);
- Statistics (STA)

These courses also fulfill Area 2 requirements:

- **Anthropology: Physical Anthropology Courses**
  - ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
  - ANT 173 - Laboratory in Physical Anthropology 1(0-2)
  - ANT 342 - Forensic Anthropology 4(3-2)
  - ANT 347 - Human Evolution 3(3-0)
  - ANT 351 - The Race Concept and Human Variation 3(3-0)
  - ANT 356 - Primate Behavior 3(3-0)

- **Communication Disorders Courses**
  - CDO 335 - The Anatomy and Physiology of Speech and Hearing 4(4-0)
  - CDO 463 - Introduction to Acoustic Phonetics 2(2-0)

- **Computer Science Courses**
  - CPS 110 - Information Technology Programming I 3(3-0)
  - CPS 120 - Microcomputer Applications 3(3-0)
  - CPS 150 - FORTRAN Programming 2(2-0)
  - CPS 180 - Principles of Computer Programming 3(3-0)
  - CPS 181 - Introduction to Data Structures 3(3-0)
  - CPS 210 - Assembly Language and Computer Organization 3(3-0)
  - CPS 280 - Alternative Programming Languages 1-6(Spec)
  - CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
  - CPS 360 - Computer Design and Architecture 3(3-0)
  - CPS 370 - File Manipulation Techniques 3(3-0)
  - CPS 380 - Microcomputer Architecture 3(3-0)
  - CPS 410 - Software Engineering 3(3-0)
  - CPS 450 - Programming Language Concepts 3(3-0)
  - CPS 468 - Systems Programming and Software 3(3-0)
  - CPS 530 - Simulation of Discrete Event Systems 3(3-0)
  - CPS 541 - Databases 3(3-0)
  - CPS 560 - Digital Computer Design 3(3-0)
  - CPS 575 - Computer Graphics 3(3-0)
Degree Requirements

Geography: Physical Geography Courses
GEO 105 - Physical Geography 3(2-2)
GEO 210 - Landforms 3(2-2)
GEO 310 - Surface Hydrology 3(2-2)
GEO 334/BIO 334 - Soil Science 3(2-2)
GEO 335 - Biogeography 3(3-0)
GEO 355 - Environmental Catastrophes 3(3-0)

Health Promotion and Rehabilitation
HSC 211 - Human Anatomy and Physiology 3(3-0)
HSC 214 - Human Anatomy 4(3-3)
HSC 215 - Human Physiology 4(3-2)

Honors Courses
HON 140 - Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)

Human Environmental Studies Courses
HEV 361 - Experimental Foods 3(2-2)
HEV 370 - Nutrition 3(3-0)
HEV 473 - Advanced Nutrition 4(4-0)

Area 3 - Social Sciences (6-12 hours)
(Alternative A - 6 hours, Alternative B - 12 hours)

Any course in the following disciplines:
Anthropology (ANT) (All ANT courses except those included in Area 2); Economics (ECO); Geography (GEO) (All GEO courses except Physical Geography courses listed in Area 2); History (HST); Political Science (PSC); Psychology (PSY); Sociology (SOC)

These courses also fulfill Area 3 requirements:

Communication Disorders Courses
ASL 101 - American Sign Language, Level I 3(3-0)
CDO 130 - Normal Speech and Language Acquisition 3(3-0)

Honors Courses
HON 120 - The Individual and Community in Modern Society 6(6-0)

Human Environmental Studies Courses
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
HEV 212 - The Family in Cultural Perspective 3(3-0)
HEV 213/WST 213 - Introduction to Human Sexuality 3(3-0)
HEV 252 - Dress and Culture 3(3-0)
HEV 306 - Human Growth and Development: Adolescence 3(3-0)
HEV 510 - Human Growth and Development: Seminar 3(3-0)

Specialized Studies (30-71 hours)

Major:
Any university approved major except majors in the College of Business Administration. The major on the B.S. degree may include courses taken to satisfy other degree requirements.

Minor:
Optional, however certain majors require a particular minor or one chosen from a list of acceptable minors. See departments for major requirements.

Electives
The number of elective hours will vary depending upon the requirements for the major.

Minimum Totals for Graduation: 124 hours

- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
This degree indicates significant exploration and achievement in the liberal arts, including humanities but with an emphasis on natural or social sciences.

**General Education Requirements (30-42 hours)**

See General Education Requirements on page 118-125

**Area Requirements (18 hours)**

In addition to the University Program requirements, each area requirement below must be completed. Courses taken to satisfy the University Program Requirements may NOT be used to satisfy area requirements.

**Area 1 - Humanities (6 hours)**

Any course in the following:

American Studies (AMS); Art (ART); English (ENG); French (FRN); German (GER); Greek (GRK); Humanities (HUM); Japanese (JPN); Latin (LAT); Music (MUS); Ojibwe (OJB); Philosophy (PHL); Religion (REL); Russian (RUS); Spanish (SPN)

These courses also fulfill Area 1 requirements:

*Broadcast and Cinematic Arts Courses*

BCA 288 - History and Appreciation of the Cinema 3(2-2)
BCA 290 - French Film and Other Media 3(3-0)
BCA 300 - African and African American Film 3(3-0)
BCA 503 - Critiquing Mass Media 3(3-0)

*Honors Courses*

HON 110 - Speaking and Writing with Critical Awareness 6(6-0)
HON 130 - Western Cultural and Intellectual Traditions 3(6(Spec)

*Theatre and Interpretation Courses*

TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
TAI 175 - Appreciation of the Theatre 3(3-0)
TAI 182 - Acting I 3(3-0)
TAI 282 - Acting II 3(3-0)
TAI 305 - Studio: Acting/Performance 1-4(Spec)
TAI 306 - Studio: Directing 1-4(Spec)
TAI 307 - Studio: Movement 1-4(Spec)
TAI 308 - Studio: Script Creation 1-4(Spec)
TAI 313 - Studio: Scenery Design 1-4(Spec)
TAI 315 - Studio: Lighting Design 1-4(Spec)
TAI 371 - Readers Theatre 3(3-0)
TAI 373 - Oral Interpretation for Children 3(3-0)
TAI 376 - Interpretation of Drama 3(3-0)
TAI 377 - Costuming I 3(3-0)
TAI 380 - Musical Theatre History 3(3-0)
TAI 382 - Acting III 3(3-0)
TAI 460 - BFA Capstone Project 3(0-6)
TAI 477 - Scene Design 3(3-0)
TAI 481 - Directing 3(3-0)
TAI 490 - Independent Study 1-4(Spec)
TAI 569 - History of American Theatre 3(3-0)
TAI 570 - Oral Interpretation of Prose Fiction 3(3-0)
TAI 571 - Oral Interpretation of Poetry 3(3-0)
TAI 572 - Special Topics in Oral Interpretation 1-9(Spec)
TAI 573 - Seminar: Interpretative Reading 3(3-0)
TAI 574 - History of Drama and Theatre I 3(3-0)

**Area 2 - Natural Sciences (6 hours)**

Any course in the following disciplines:

Astronomy (AST); Biology (BIO); Chemistry (CHM); Earth Science (ESC); Geology (GEL); Meteorology (MET); Mathematics (MTH); Physical Science (PHS); Physics (PHY); Science (SCI); Statistics (STA)

These courses also fulfill Area 2 requirements:

*Anthropology: Physical Anthropology Courses*

ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
ANT 173 - Laboratory in Physical Anthropology 1(0-2)
ANT 342 - Forensic Anthropology 4(3-2)
ANT 347 - Human Evolution 3(3-0)
ANT 351 - The Race Concept and Human Variation 3(3-0)
ANT 356 - Primate Behavior 3(3-0)

*Communication Disorders Courses*

CDO 335 - The Anatomy and Physiology of Speech and Hearing 4(4-0)
CDO 463 Introduction to Acoustic Phonetics 2(2-0)

*Computer Science Courses*

CPS 110 - Information Technology Programming I 3(3-0)
CPS 120 - Microcomputer Applications 3(3-0)
CPS 150 - FORTRAN Programming 2(2-0)
CPS 180 - Principles of Computer Programming 3(3-0)
CPS 181 - Introduction to Data Structures 3(3-0)
CPS 210 - Assembly Language and Computer Organization 3(3-0)
CPS 280 - Alternative Programming Languages 1-6(Spec)
CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
CPS 360 - Computer Design and Architecture 3(3-0)
CPS 370 - File Manipulation Techniques 3(3-0)
CPS 380 - Microcomputer Architecture 3(3-0)
CPS 410 - Software Engineering 3(3-0)
CPS 450 - Programming Language Concepts 3(3-0)
CPS 468 - Systems Programming and Software 3(3-0)
CPS 530 - Simulation of Discrete Event Systems 3(3-0)
CPS 541 - Databases 3(3-0)
CPS 560 - Digital Computer Design 3(3-0)
CPS 575 - Computer Graphics 3(3-0)

*Geography: Physical Geography Courses*

GEO 105 - Physical Geography 3(2-2)
GEO 210 - Landforms 3(2-2)
GEO 310 - Surface Hydrology 3(2-2)
GEO 334/BIO 334 - Soil Science 3(2-2)
GEO 335 - Biogeography 3(3-0)
GEO 355 - Environmental Catastrophes 3(3-0)
Degree Requirements

Health Promotion and Rehabilitation
HSC 211 - Human Anatomy and Physiology 3(3-0)
HSC 214 - Human Anatomy 4(3-3)
HSC 215 - Human Physiology 4(3-2)

Honors Courses
HON 140 - Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)

Human Environmental Studies Courses
HEV 361 - Experimental Foods 3(2-2)
HEV 370 - Nutrition 3(3-0)
HEV 473 - Advanced Nutrition 4(4-0)

Area 3 - Social Sciences (6 hours)
Any course in the following disciplines:
- Anthropology (ANT) (All ANT courses except those included in Area 2)
- Economics (ECO)
- Geography (GEO) (All GEO courses except Physical Geography courses listed in Area 2)
- History (HST)
- Political Science (PSC)
- Psychology (PSY)
- Sociology (SOC)

These courses also fulfill Area 3 requirements:

Communication Disorders Courses
ASL 101 - American Sign Language, Level I 3(3-0)
CDO 130 - Normal Speech and Language Acquisition 3(3-0)

Honors Courses
HON 120 - The Individual and Community in Modern Society 6(6-0)

Human Environmental Studies Courses
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
HEV 212 - The Family in Cultural Perspective 3(3-0)
HEV 213/WST 213 - Introduction to Human Sexuality 3(3-0)
HEV 252 - Dress and Culture 3(3-0)
HEV 306 - Human Growth and Development: Adolescence 3(3-0)
HEV 510 - Human Growth and Development: Seminar 3(3-0)

Specialized Studies
(50-71 hours)

Plan B Option 1 requires any university approved major, except majors in the College of Business Administration, AND a minor, provided the minor is one listed below.

Plan B Option 2 requires a major selected from the list below AND any university approved minor. Some majors may specify appropriate minors.

Plan B Option 3 requires a major in Actuarial Science, Athletic Training/Sports Medicine, Computer Science-Mathematics, or Neuroscience, and NO minor.

Majors:
- Anthropology
- Biochemistry
- Biology: General Option
- Biology: Microscopy Option
- Biology: Natural Resources Option
- Biology: Pregraduate/Preprofessional Option
- Biology/Biomedical Sciences
- Chemistry
- Cognitive Science
- Communication Disorders
- Computer Science
- Dietetics
- Earth Science
- Earth Science: Oceanography Concentration
- Economics
- Environmental Studies: Environmental Policy Concentration
- Environmental Studies: Environmental Science Concentration
- Geography
- Geography: Environmental & Land Use Planning Concentration
- Geography: Geographic Information Sciences Concentration
- Geology
- Geology: Hydrogeology/Environmental Geology Concentration
- Health Fitness In Preventive and Rehabilitative Programs
- History
- Information Technology
- Mathematics
- Meteorology
- Physics
- Physics: Astronomy Concentration
- Political Science: General Concentration
- Political Science: International Relations/Comparative Politics Concentration
- Political Science: Public Administration Concentration
- Psychology: General
- Psychology: Graduate Preparation
- Public Health Education & Health Promotion
- Sociology
- Sociology: Social and Criminal Justice Concentration
- Statistics

Minors:
- Anthropology Minor
- Biology Minor, Non-Teaching
- Chemistry Minor, Non-Teaching
- Communication Disorders Minor
- Computer Science Minor
- Earth Science Minor, Non-Teaching
- Economics Minor
- Geographic Information Sciences Minor
- Geography Minor, Non-Teaching
- Geology Minor
- History Minor, Non-Teaching
- Hydrogeology/Environmental Geology Minor
- Information Technology Minor
- Mathematics Minor, Non-Teaching
- Natural Resources Minor
- Natural Resources Minor with Biology Major
- Nutrition Minor
- Physics Minor
- Political Science Minor
- Psychology Minor
- Sociology Minor
- Statistics Minor

Electives
The number of elective hours will vary depending upon the requirements for the major or minor.

Minimum Totals for Graduation: 124 hours

- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
This degree provides professional preparation for students aspiring to administrative careers in business, industry, and government.

**Admission Requirements, Retention and Termination Standards**

For information on Admission Requirements to Professional Business Studies, refer to the College of Business Administration section of this bulletin on page 153.

### General Education Requirements (30-42 hours)

See General Education Requirements on page 119-125

### Other Degree Requirements I (9 hours)

BIS 101 - Essential Business Communications Skills 3(3-0)
ECO 203 - Microeconomic Principles For Business 3(3-0)
ECO 204 - Principles of Macro and Global Economics 3(3-0)

### Other Degree Requirements II (4 hours)

Select one of the following:
MTH 132 - Calculus I 4(4-0)
MTH 217 - Business Calculus 4(4-0)

### Other Degree Requirements III (3 hours)

Select one of the following:
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

### Other Degree Requirements IV (3 hours)

Select one of the following:
PHL 118 - Moral Problems 3(3-0)
PHL 318 - Business Ethics 3(3-0)

### Professional Studies I (15 hours)

ACC 250 - Introduction to Financial Accounting 3(3-0)
ACC 255 - Managerial Accounting & Decision Making 3(3-0)
BIS 255 - Information Systems 3(3-0)
BLR 235 - Business Law 3(3-0)
MGT 258 - Effective Management of Human Resources in Organizations 3(3-0)

### Professional Studies II (11 hours)

BUS 301 - Integrated Business Experience 2(1-1)
FIN 302 - Integrated Financial Analysis 3(3-0)
MGT 303/MKT 303 - Integrated Supply Chain Management 3(3-0)
MKT 304 - Integrated Marketing Management 3(3-0)

### Specialized Studies (30-42 hours)

**Major in one of the following:**
- Accounting Information Systems Major
- Accounting Major
- Economics Major
- Finance Major
- General Business Administration Major: Health Services Administration Concentration
- General Management Major
- Hospitality Services Administration Major: Gaming & Entertainment Management Concentration
- Human Resources Management Major
- International Business Major
- Law and Economics Major
- Logistics Management Major
- Management Information Systems Major
- Marketing Major - General
- Marketing Major - Marketing Communications Concentration
- Marketing Major - Professional Sales Concentration
- Marketing Major - Retail Strategy Concentration
- Operations Management Major
- Personal Financial Planning Major
- Purchasing & Supply Management Major
- Real Estate: Development and Finance Major
- Retail Management Major

**Minor: Optional**

### Electives

The number of elective hours will vary depending upon the requirements for the degree and the major.

### Minimum Totals for Graduation: 124-126 hours

- To graduate from CMU you must complete a minimum of 124-126 hours, at least 40 of which must be in courses numbered 300 or above.
- **Please note:** the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
- Students interested in this degree should consult the Office of Business Student Services in the College of Business Administration as soon as possible after their initial registration at CMU.
Bachelor of Science in Electrical Engineering (B.S.E.E.)

General Education Requirements (30-42 hours)
See General Education Requirements on page 119-125

Business Component I - Required (3 hours)
BLR 202 - Legal Environment of Business 3(3-0)
Note: BLR 202 may also be used to fulfill University Program requirements.

Business Component II - Electives (6 hours)
Select two from the following:
ACC 201 - Concepts of Financial Accounting 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
FIN 332 - Managerial Finance 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)
Note: ECO 201 and ECO 202 may not both be taken.

Mathematics & Science Requirements I (27 hours)
CPS 180 - Principles of Computer Programming 3(3-0)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
MTH 233 - Calculus III 4(4-0)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
STA 392 - Probability and Statistics for Engineers 3(3-0)
Note: MTH 132, PHY 145, PHY 175, and CPS 180 may also be used to fulfill University Program requirements.

Mathematics & Science Requirements II (3-6 hours)
Select one of the following options:

Option A
MTH 232 - Linear Algebra and Differential Equations 3(3-0)

Option B
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
MTH 334 - Differential Equations 3(3-0)

Mathematics & Science Requirements III (4-5 hours)
Select one of the following:
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 161 - Principles of Chemistry 5(4-4)
Note: CHM 131 and CHM 161 may also be used to fulfill University Program requirements.

Specialized Studies (63 hours)
Major in Electrical Engineering (see the Department of Engineering and Technology section for more information).
Minor is optional.

Minimum Totals for Graduation: 130 - 134 hours
• To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
• Please note: the combination of some majors and minors may require more than 124 hours for graduation.
• No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
• You should read the Requirements for Graduation in this Bulletin for a complete description.
• Note: Those who fail to submit CLEP or AP credit (for ENG 101) and pass the oral competency examination (for COM 101) will need to complete a minimum of 136 hours.
Bachelor of Science in Engineering Technology (B.S.E.T.)

This degree provides professional preparation for students aspiring to engineering careers in business, industry and government. This degree provides students with an opportunity to pursue a major in electronic, manufacturing, or mechanical engineering technology.

Students who wish to pursue this degree must complete the following:
1. General Education Requirements (30-42 hours),
2. Basic Science and Mathematics (24-31 hours), and
3. an Engineering Technology Major (51 hours) which includes:
   a. Broad-based Engineering Technology Core (21 hours),
   b. A specialization in electronic, mechanical, or manufacturing engineering technology (21 hours), and
   c. Technical electives (9 hours).

Students pursuing this degree must consult with a departmental advisor during their first semester at Central Michigan University.

General Education Requirements (30-42 hours)
See General Education Requirements on page 119-125.

Basic Science and Mathematics Requirements (24-31 hours)
All students pursuing a major in electronic, manufacturing, or mechanical engineering technology must complete the following basic science and mathematics requirements.

Core Courses I (12 hours)
MTH 130 - Pre-Calculus Mathematics 4(4-0)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)

Note: MTH 130 may be waived upon the results of the mathematics placement examination or permission of a mathematics advisor.

Core Courses II (5 hours)
Select one of the following options:
Option 1
PHY 130 - College Physics I 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)

Option 2
PHY 145 - University Physics I 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)

Core Courses III (5 hours)
Select one of the following options:
Option 1
PHY 131 - College Physics II 4(4-0)
PHY 171 - College Physics Laboratory II 1(0-2)

Option 2
PHY 146 - University Physics II 4(4-0)
PHY 176 - University Physics Laboratory II 1(0-2)

Core courses IV (4 hours)
Select one of the following:
CHM 120 - Survey of Chemistry 4(4-0)
CHM 131 - Introduction to Chemistry I 4(3-3)

Core Courses V (2-3 hours)
Select one of the following:
CPS 150 - FORTRAN Programming 2(2-0)
CPS 180 - Principles of Computer Programming 3(3-0)

Note: The following courses may be used according to rules regarding University Program Requirements: MTH 132, PHY 130, PHY 145, PHY 170, PHY 175, CHM 120, CHM 131, CPS 180.

Specialized Studies (51 hours)
All students must pursue a major in Electronic Engineering Technology, Manufacturing Engineering Technology, or Mechanical Engineering Technology. See the Department of Engineering and Technology section for more information.

A minor is optional. Students who wish to complete a minor are encouraged to select Computer Science, Mathematics, or Physics.

Electives (3-16 hours)
The number of elective hours will vary depending upon the requirements for the degree and major.

Minimum Totals for Graduation: 124 hours
• To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
• Please note: the combination of some majors and minors may require more than 124 hours for graduation.
• No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
• You should read the Requirements for Graduation in this Bulletin for a complete description.
Bachelor of Science
in Mechanical Engineering (B.S.M.E.)

General Education Requirements
(30-42 hours)
See General Education Requirements on page 119-125.

Business Component I - Required
(3 hours)
BLR 202 - Legal Environment of Business 3(3-0)
  Note: BLR 202 may also be used to fulfill University Program requirements.

Business Component II - Electives
(6 hours)
Select two from the following:
ACC 201 - Concepts of Financial Accounting 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
FIN 332 - Managerial Finance 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)
  Note: ECO 201 and ECO 202 may not both be taken.

Mathematics & Science Requirements I
(27 hours)
CPS 180 - Principles of Computer Programming 3(3-0)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
MTH 233 - Calculus III 4(4-0)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
STA 392 - Probability and Statistics for Engineers 3(3-0)
  Note: MTH 132, PHY 145, PHY 175, and CPS 180 may also be used to fulfill University Program requirements.

Mathematics & Science Requirements II
(3-6 hours)
Select one of the following options:
Option A
MTH 232 - Linear Algebra and Differential Equations 3(3-0)
Option B
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
  MTH 334 - Differential Equations 3(3-0)

Mathematics & Science Requirements III
(4-5 hours)
Select one of the following:
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 161 - Principles of Chemistry 5(4-4)
  Note: CHM 131 and CHM 161 satisfy Group II lab requirement.

Specialized Studies (63 hours)
  Major in Mechanical Engineering (see the Department of Engineering Technology section for more information).
  Minor is optional.

Minimum Totals for Graduation:
130 - 134 hours
  To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
  Please note: the combination of some majors and minors may require more than 124 hours for graduation.
  No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
  You should read the Requirements for Graduation in this Bulletin for a complete description.
  Note: Those who fail to submit CLEP or AP credit (for ENG 101) and pass the oral competency examination (for COM 101) will need to complete a minimum of 136 hours.
Completion of this degree will qualify a student for recommendation to the Michigan State Board of Education for an Elementary Provisional Certificate, which will permit the holder to teach in the elementary schools.

### General Education Requirements (30-42 hours)

**Note:** The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification. This includes University Program courses and Competencies. For more information, see General Education Requirements on page 119-125.

### Degree Requirements (27-33 hours)

**Note:** Nine of these hours may double count in University Program (UP) categories.

#### Specific Course Requirements (18 hours)

- ART 345 - Art in the Elementary School 3(3-0)
- ENG 301 - Children’s Literature 3(3-0)
- MTH 151 - Mathematics for Elementary Teachers I 3(3-0)
- MTH 152 - Mathematics for Elementary Teachers II 3(3-0)
- MUS 330 - Music for Elementary Classroom Teachers 3(3-0)
- PES 310 - Physical Education for the Classroom 3(Spec)

**Notes:**
- ART 345 to be taken after admission to the Teacher Education Program. PES 310 is not required for students with PES minors.

#### Science Requirements I (3-5 hours)

**Note:** These courses satisfy University Program (UP) requirements.

- Select one of the following groups:
  
  - **Group 1 (3 hours)**
    - PHS 151 - Introductory Physical Science I 3(2-2)
  
  - **Group 2 (3 hours)**
    - CHM 101 - Armchair Chemistry 3(2-2)
  
  - **Group 3 (4 hours)**
    - CHM 111 - The Interaction of Chemistry and Society 3(3-0)
    - CHM 127 - Introductory Chemistry Laboratory 1(0-2)
  
  - **Group 4 (5 hours)**
    - CHM 120 - Survey of Chemistry 4(4-0)
    - CHM 127 - Introductory Chemistry Laboratory 1(0-2)

#### Science Requirements II (3-6 hours)

**Note:** These courses may satisfy University Program (UP) requirements.

- Select one course from the following:
  - BIO 101 - General Biology 3(2-2)
  - BIO 105 - Introductory Quantitative Biology 3(2-2)
  - BIO 151 - Human Biology 3(3-0)
  - BIO 229 - Nature Study 3(2-3)
  - BIO 240 - Conservation of Natural Resources 3(3-0)
  - HON 140 - Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)

### Science Requirements III (3-4 hours)

**Note:** These courses satisfy University Program (UP) requirements.

- Select Group 1 or an option from Group 2:
  
  - **Group 1 (4 hours)**
    - AST 111 - Astronomy 3(3-0)
    - AST 112 - Introduction to Astronomical Observations 1(0-2)
  
  - **Group 2 (3-4 hours)**
    - Select one of the following options:
      
      - **Option 1 (3 hours)**
        - GEO 105 - Physical Geography 3(2-2)
      
      - **Option 2 (4 hours)**
        - GEL 101 - Physical Geology 3(3-0)
        - GEL 102 - Physical Geology Laboratory 1(0-2)
      
      - **Option 3 (3 hours)**
        - GEL 100 - Introduction to Earth Systems 3(2-2)
      
      - **Option 4 (3 hours)**
        - GEL 130 - Earth Processes 3(2-2)

### Professional Education Requirements I (45 hours)

- EDU 107 - Introduction to Teaching 3(3-1)
- EDU 290 - Technology in Education 3(1-4)
- EDU 320 - Elementary Mathematics Methods 3(3-0)
- EDU 330 - Reading in the Elementary School 3(3-0)
- EDU 343 - Social Studies Methods in Elementary Education 3(3-0)
- EDU 345 - Science Methods in Elementary Education 3(3-0)
- EDU 361/361 - Midtier Practicum 2(1-2)
- EDU 431 - Corrective Reading in the Classroom 3(3-0)
- EDU 432 - Student Teaching Seminar 3(3-0)
- EDU 458 - Student Teaching 1-10(Spec)
- EDU 493 - Learning and Evaluation in Elementary Education 3(3-0)
- EDU 495 - Foundations of Education 3(3-0)
- SPE 504 - Teaching Students in Inclusive Settings 3(3-0)

**Note:** EDU 458 is required for 10 credit hours on this degree. Read carefully the section on Standards leading to Teacher Certification for additional requirements.

### Professional Education Requirements II (3 hours)

**Note:** Three hours may satisfy University Program (UP) requirements.

- Select one of the following:
  - EDU 280 - Education of Children 3(3-0)
  - HEV 100 - Human Growth and Development: Lifespan 3(3-0)
Specialized Studies (31-72 hours)

Option 1
Select a major and a minor representing at least two of Major and Minor Groups 1, 2 or 3. (Example: If a major is selected from Major Group 1, the minor must be selected from Minor Group 2 or 3).

Option 2
Select three minors representing at least two Minor Groups 1, 2 or 3, then a third minor from any Minor Group. (Example: After selecting two minors from Minor Groups 1 and 2, the third minor may be selected from Minor Groups 1, 2, 3, or 4.)

Option 3
Child Development major and two curriculum minors: One of these minors must be from Minor Group 1. The second minor may be selected from Minor Groups 2 or 3.

Option 4
A student seeking K-12 certification in Foreign Language (FRN, GER, SPN), School Health Education or Physical Education using this option must select either 1) another major and minor representing at least two of Major/Minor Groups 1, 2 or 3 OR 2) two minors representing at least two of Minor Groups 1, 2 or 3.

Option 5
A student seeking K-12 certification in Family Studies: Life Management Education must select one of the following minors: English (ENG), Language Arts (Interdisciplinary), Reading in the Elementary Grades (TEPD). School Health Education is also strongly recommended as an additional minor. Selection of the minor(s) MUST be in consultation with the major advisor.

Option 6
Middle Level Education minor and two curriculum minors, subject to advisor approval, from Minor Groups 1-4.
Students must select two curriculum minors which are broad and multidisciplinary, and encompass the major areas within those fields.
Completing the Middle Level Education Minor will also qualify the student for a Michigan Middle Level Endorsement on a Provisional Elementary Teaching Certificate.

Option 7
Basic Program: One major and the Planned Program minor.
A student must select one major from the following: Integrated Science (Elementary), Mathematics (Elementary), Social Studies, Language Arts, History, English, AND complete the Planned Program minor.

Major Groups:

Group 1:
- Integrated Science (CST)
- Mathematics (MTH)

Group 2:
- History (HST)
- Social Studies (interdisciplinary)

Group 3:
- English (ENG)
- Language Arts (interdisciplinary)

Minor Groups:

Group 1:
- Integrated Science (CST)
- Mathematics (MTH)

Group 2:
- Bilingual Bicultural Education-Ojibwe (interdisciplinary)
- Bilingual Bicultural Education-Spanish (interdisciplinary)
- Geography (GEO)
- History (HST)

Group 3:
- English (ENG)
- Language Arts (interdisciplinary)
- Reading in the Elementary Grades (TEPD)

Group 4:
(Options 2 or 6 only)
- Child Development (HEV)
- Dance (PES)
- French (FRN)
- German (GER)
- Outdoor and Environmental Education (RPL)
- Physical Education (PES)
- Planned Program (TEPD)
- School Health Education (HSC)
- Spanish (SPN)

Minimum Totals for Graduation:
124-195 hours

To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.

Please note: the combination of some majors and minors may require more than 124 hours for graduation.

You must earn a minimum overall grade point average of 2.70 in order to graduate with the Bachelor of Science in Education degree.

Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.

No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.

You should read the Requirements for Graduation in this Bulletin for a complete description.

Note: Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.
Bachelor of Science in Education (B.S. in Ed.)
Secondary Provisional Certification

Completion of this degree will qualify a student for recommendation to the Michigan State Board of Education for a Secondary Provisional Certificate, which will permit the holder to teach the major and minor in the secondary grades.

Majors in Visual Arts Education (ART), School Health Education (HSC), Industrial Education (IET), Spanish (SPN), French (FRN), German (GER), and Physical Education (PES) will qualify for recommendation for a Secondary Provisional Certificate which will permit the holder to teach the major in grades K-12 and the minor in the secondary grades.

General Education Requirements
(30-42 hours)
The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification. This includes University Program courses and Competencies. For more information, see General Education Requirements on page 119-125.

Degree Requirement (3 hours)
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
Note: HEV 100 also satisfies University Program Requirements.

Professional Education Requirements
(34 hours)
EDU 107 - Introduction to Teaching 3(3-1)
EDU 290 - Technology in Education 3(1-4)
EDU 310 - Psychological Foundations of Education 3(3-0)
EDU 325 - Middle Level and High School Teaching Methods 3(3-0)
EDU 432 - Student Teaching Seminar 3(3-0)
EDU 450 - Content Area Literacy 3(3-0)
EDU 458 - Student Teaching 1-10(Spec)
EDU 495 - Foundations of Education 3(3-0)
SPE 504 - Teaching Students in Inclusive Settings 3(3-0)
Note: EDU 458 is required for 10 credit hours on this degree. Read carefully the section on Standards Leading to Teacher Certification for additional requirements.

Specialized Studies (51-82 hours)
Note: A few major/minor combinations are not allowed. Please consult with a university advisor to make sure the combination you select is available.

Select one of the following majors (33-53 hours):
- Biology Major
- Business Teacher Education Major Plan A: Marketing Education
- Business Teacher Education Major Plan A: Office Education Concentration
- Business Teacher Education Major Plan B: Marketing Education
- Business Teacher Education Major Plan B: Office Education Concentration
- Chemistry Major
- Chemistry-Physics Major
- Earth Science Major
- English Major
- Family Studies: Life Management Education Major
- French Major
- Geography Major
- German Major
- History Major
- Industrial Education Major
- Integrated Science Major (no minor required)
- Mathematics Major
- Physical Education Major
- Physics Major
- School Health Education Major
- Social Studies Major
- Spanish Major
- Speech Major: Broadcast & Cinematic Arts Emphasis
- Speech Major: Generalist Emphasis
- Speech Major: IPC Emphasis
- Speech Major: TAI Emphasis
- Visual Arts Education Major (no minor required)

Select one of the following minors (20-29 hours):
- Bilingual Bicultural Education Ojibwe Minor
- Bilingual Bicultural Education Spanish Minor
- Biology Minor, Teaching Secondary
- Chemistry Minor, Teaching
- Dance Minor, Teaching
- Earth Science Minor, Teaching
- English as A Second Language Minor, Teaching
- English Minor, Teaching Secondary
- French Minor, Teaching Secondary
- General Business Minor in Business Teacher Education (BusinessTeacher Education Plan A Teaching Major only)
- Geography Minor, Teaching
- German Minor, Teaching Secondary
- History Minor, Teaching Secondary
- Industrial Education Minor (Industrial Education Teaching Major only)
- Industrial Education Minor, Teaching Secondary
- Mathematics Minor, Teaching Secondary
- Outdoor and Environmental Education Minor, Teaching
- Physical Education Minor, Non-Teaching and Secondary
- Physics Minor, Teaching Secondary
- School Health Education Minor, Teaching
- Spanish Minor, Teaching Secondary
- Speech Minor, Teaching Secondary

Middle Level Education (MLE) Option:
Select the following additional minor:
- Middle Level Education Minor, Teaching

Minimum Totals for Graduation:
124 - 161 hours
- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- You must earn a minimum overall grade point average of 2.70 in order to graduate with the Bachelor of Science in Education degree.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
- Note: Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.
Degree Requirements

Completion of this degree will qualify a student for recommendation to the Michigan State Board of Education for an Elementary Provisional Certificate, which will permit the holder to teach in the elementary schools.

Majors in Special Education (SPE) will qualify for recommendation for either an Elementary Provisional Certificate, which will permit the holder to teach in the elementary school and teach students with emotional or cognitive impairments in grades K-12, or a Secondary Provisional Certificate which will permit the holder to teach in the secondary school and teach students with emotional or cognitive impairments in grades K-12.

General Education Requirements (30-42 hours)
The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification. For more information, see General Education Requirements on page 119-125

Degree Requirements (21 hours)
CDO 438 - Language Disorders in Special Education Populations 3(3-0)
ENG 381 - Children’s Literature 3(3-0)
MTH 151 - Mathematics for Elementary Teachers I 3(3-0)
MTH 152 - Mathematics for Elementary Teachers II 3(3-0)
PSY 100 - Introduction to Psychology 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)
PSY 310 - Psychological Testing 3(3-0)

Other Degree Requirements (5-6 hours)
Select two from the following three:
ART 345 - Art in the Elementary School 3(3-0)
IET 232 - Technology for Children 2(1-2)
MUS 330 - Music for Elementary Classroom Teachers 3(3-0)

Professional Education Requirements I (38 hours)
Take all of the following:
EDU 107 - Introduction to Teaching 3(3-1)
EDU 320 - Elementary Mathematics Methods 3(3-0)
EDU 330 - Reading in the Elementary School 3(3-0)
EDU 343 - Social Studies Methods in Elementary Education 3(3-0)
EDU 345 - Science Methods in Elementary Education 3(3-0)
EDU 361 - Midtier Practicum 2(1-2)
EDU 431 - Corrective Reading in the Classroom 3(3-0)
EDU 432 - Student Teaching Seminar 3(3-0)
EDU 458 - Student Teaching 1-10(Spec)
EDU 493 - Learning and Evaluation in Elementary Education 3(3-0)
EDU 495 - Foundations of Education 3(3-0)
SPE 455 - Special Education Student Teaching Seminar 3(3-0)

Note: EDU 458 is required for 6 credit hours on this degree.
Read carefully the section on Standards Leading to Teacher Certification.

Professional Education Requirements II (6 hours)
Select one of the following:
SPE 456 - Special Education Student Teaching: Emotional Impairment 6(Spec)
SPE 458 - Special Education Student Teaching: Cognitive Impairment 6(Spec)

Specialized Studies (59-64 hours)
A major and a minor is required:

Majors:
• Special Education Major: Teachers of Students With Cognitive Impairment
• Special Education Major: Teachers of Students With Emotional Impairment

Minors:
• Bilingual Bicultural Education Ojibwe Minor
• Bilingual Bicultural Education Spanish Minor
• Child Development Minor
• English Minor, Teaching Elementary
• Geography Minor, Teaching
• History Minor, Teaching Elementary
• Integrated Science Minor
• Language Arts Minor
• Mathematics Minor, Teaching Elementary
• Reading In The Elementary Grades Minor
• Spanish Minor, Teaching Elementary
• Special Physical Education Minor, Teaching Elementary
• Special

Minimum Totals for Graduation:
133 - 165 hours
• To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
• Please note: the combination of some majors and minors may require more than 124 hours for graduation.
• You must earn a minimum overall grade point average of 2.70 in order to graduate with the Bachelor of Science in Education degree.
• No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
• You should read the Requirements for Graduation in this Bulletin for a complete description.
• Note: Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.
Completion of this degree will qualify a student for recommendation to the Michigan State Board of Education for a Secondary Provisional Certificate, which will permit the holder to teach in the secondary schools. Majors in Special Education (SPE) will qualify for recommendation for either an Elementary Provisional Certificate, which will permit the holder to teach in the elementary school and teach students with emotional or cognitive impairments in grades K-12, or a Secondary Provisional Certificate which will permit the holder to teach in the secondary school and teach students with emotional or cognitive impairments in grades K-12.

General Education Requirements (30-42 hours)
The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification. This includes University Program courses and Competencies. For more information, see General Education Requirements on page 119-125.

Other Degree Requirements (12 hours)
Communication (3 hours)
CDO 438 - Language Disorders in Special Education Populations

Psychology (9 hours)
PSY 100 - Introduction to Psychology 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)
PSY 310 - Psychological Testing 3(3-0)

Note: PSY 100 also satisfies University Program Requirements.

Professional Education Requirements I (30 hours)
Take all of the following:
EDU 107 - Introduction to Teaching 3(3-1)
EDU 290 - Technology in Education 3(1-4)
EDU 310 - Psychological Foundations of Education 3(3-0)
EDU 325 - Middle Level and High School Teaching Methods 3(3-0)
EDU 432 - Student Teaching Seminar 3(3-0)
EDU 450 - Content Area Literacy 3(3-0)
EDU 458 - Student Teaching 1-10(Spec)
EDU 495 - Foundations of Education 3(3-0)
SPE 455 - Special Education Student Teaching Seminar 3(3-0)

Note: EDU 458 is required for 6 credit hours on this degree.

Read carefully the section on Standards Leading to Teacher Certification for additional requirements.

Professional Education Requirements II (6 hours)
Select one of the following:
SPE 456 - Special Education Student Teaching: Emotional Impairment 6(Spec)
SPE 458 - Special Education Student Teaching: Cognitive Impairment 6(Spec)

Specialized Studies (72-110 hours)
Note: Some majors require a particular minor and some minors are available only to particular majors. Check major and minor requirements in departmental description sections for further information.
Select one of the following options:
Option A
This option requires two majors.

Major Group I
Select one of the following majors:
• Special Education Major: Teachers of Students With Cognitive Impairment
• Special Education Major: Teachers of Students With Emotional Impairment

Major Group II
Select one of the following majors:
• Biology Major
• Business Teacher Education Major Plan B: Marketing Education
• Business Teacher Education Major Plan B: Office Education Concentration
• Chemistry Major
• Chemistry-Physics Major
• Earth Science Major
• English Major
• Family Studies Major: Life Management Education
• Geography Major
• History Major
• Industrial Education Major
• Mathematics Major
• Physical Education Major
• School Health Education Major
• Spanish Major
Option B
This option requires one major and two minors (one from Group I and one from Group II OR two from Group I).

Majors
- Special Education Major: Teachers of Students With Cognitive Impairment
- Special Education Major: Teachers of Students With Emotional Impairment

Minors Group I
- Bilingual Bicultural Education Ojibwe Minor
- Bilingual Bicultural Education Spanish Minor
- Biology Minor, Teaching Secondary
- Chemistry Minor, Teaching
- Earth Science Minor, Teaching
- English Minor, Teaching Secondary
- Geography Minor, Teaching
- History Minor, Teaching Secondary
- Industrial Education Minor, Teaching Secondary
- Mathematics Minor, Teaching Secondary
- Physical Education Minor, Non-Teaching and Secondary
- Physics Minor, Teaching
- Spanish Minor, Teaching Secondary

Minors Group II
- Dance Minor, Teaching
- French Minor, Teaching Secondary
- German Minor, Teaching Secondary
- Outdoor and Environmental Education Minor, Teaching
- School Health Education Minor, Teaching
- Speech Minor, Teaching Secondary

Minimum Totals for Graduation:
147-200 hours
- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- Please note: the combination of some majors and minors may require more than 124 hours for graduation.
- You must earn a minimum overall grade point average of 2.70 in order to graduate with the Bachelor of Science in Education degree.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
- Note: Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.
See the Department of Sociology, Anthropology and Social Work section for additional requirements for admission to the Social Work Program.

**General Education Requirements (30-42 hours)**
See General Education Requirements on page 119-125.

**Other Degree Requirements I (1 hour)**
LIB 197 - Introduction to Library and Information Research 1(1-0)

**Other Degree Requirements II (3 hours)**
Select one of the following:
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)

**Other Degree Requirements III (3 hours)**
Select one of the following:
BIO 151 - Human Biology 3(3-0)
HSC 211 - Human Anatomy and Physiology 3(3-0)

**Specialized Studies (67-71 hours)**
- **Major:** Social Work (47 hours)
- **Minor:** (20-24 hours) a student will select one of the following alternatives:
  a. Any University-approved minor. It is recommended that a student consult with a Social Work advisor before selecting a minor.
  b. 20 or more hours of coursework from at least two departments (not including required courses in the degree program, Sociology or Social Work courses) planned in advance by a student with a Social Work advisor. These courses are to be a planned program to meet the students’ individual learning objectives or to complement their professional interest.

**Electives**
The number of elective hours will vary depending upon the requirements for the degree and the major.

**Minimum Totals for Graduation: 124 hours**
- To graduate from CMU you must complete a minimum of 124 hours, at least 40 of which must be in courses numbered 300 or above.
- **Please note:** the combination of some majors and minors may require more than 124 hours for graduation.
- Not all major/minor combinations are allowed. Please consult with a university advisor to confirm your choice.
- No more than a total of 27 hours may be taken from the College of Business Administration and counted towards graduation.
- You should read the Requirements for Graduation in this Bulletin for a complete description.
General Education

General Education at Central Michigan University consists of two areas of liberal study and achievement, University Program and Competency Requirements, which are required of all students.

A liberal undergraduate education serves as preparation for a thoughtful life and service to the community, as a source of learning from which all other university work must draw and to which that work must contribute, and as an opportunity to identify intellectual interests by exploring a variety of disciplines and categories of human knowledge.

Liberally educated persons know about basic forces, ideas and values that shape the world, and about the structure of organized human knowledge—the arts and humanities, natural and social sciences, and their values, perspectives and methods. They are skilled in reasoning, writing, speaking, problem solving, using and interpreting quantitative information, in working with others, including those of diverse ethnic and cultural background, and in thinking reflectively about themselves as individuals and as members of society. Such persons value rational inquiry, honesty in scholarship and life-long learning.

Goals and Objectives

General Education is intended to assist the student in the following objectives:

A. Developing undergraduate college-level competencies in reading comprehension, written communication, oral communication, and quantitative reasoning and interpretation.

B. Learning to examine and solve problems through intellectual process skills, such as comprehension, translation, interpretation, extrapolation, application, analysis, synthesis, and evaluation. Library and research skills are important accompaniments of these processes.

C. Evaluating critically a broad range of personal and cultural values.

D. Developing intellectual concerns to include:
   1. the logic and substance of science;
   2. an understanding of American society and culture;
   3. a cross-cultural perspective through the study of diverse cultures;
   4. an awareness of human nature from differing theoretical points of view;
   5. the fine arts

E. Understanding global cultures, and, where possible, studying abroad.

F. Experiencing intellectual community.

University Program

The University Program requires at least 27-30 semester hours of coursework in Humanities, Natural Sciences, Social Sciences, and Integrative and Area Studies. The courses are divided into groups and subgroups, and you must complete at least 3 semester hours in each subgroup.

Students who receive credit for an approved study-abroad experience may satisfy their University Program requirement with a minimum of 27 hours. Students whose first college-level foreign language course is at an advanced level (102 or higher) may satisfy their University Program requirement with a minimum of 27 hours. All other students may satisfy their University Program requirement with a minimum of 30 hours.

The following additional limitations must also be observed:

A. You may not take more than two courses or seven hours of CR/NC in the University Program.

B. You must earn a minimum cumulative grade point average of 2.0 in University Program courses in order to graduate.

C. The University Program has been designed to encourage you to explore as many different disciplines as possible; therefore, you must choose your University Program courses from different designators. Only one time may you take a second course with the same designator to satisfy your University Program requirement, with the exception of foreign language courses and courses taken for study abroad credit (see Subgroup IV-B). Typically you will be required to take courses with nine (9) different designators. For purposes of this paragraph, a course and its separately numbered laboratory (GEL 102 Physical Geology Laboratory, for example), count as a single course.

All courses at CMU are identified by a three-letter code called a designator, as well as by a course number. Designators refer to the areas of study within the university’s departments. Although most departments have only one area of study and thus one designator, some do have two or more. A complete list of all designators may be found on page 296 of this Bulletin.

D. Within Group II, Natural Sciences, each student must select at least one laboratory experience equivalent to at least one laboratory credit hour. The following courses satisfy this requirement:

   ANT 173  Laboratory in Physical Anthropology
   AST 112  Introduction to Astronomical Observation
   BIO 101  General Biology
   BIO 105  Introductory Quantitative Biology
   BIO 110  Concepts of Biology
   CHM 101  Armchair Chemistry
   CHM 127  Introductory Chemistry Laboratory
   CHM 131  Introduction to Chemistry I
   CHM 161  Principles of Chemistry
   GEL 100  Introduction to Earth Systems
   GEL 102  Physical Geology Laboratory
   GEL 130  Earth Processes
   GEO 105  Physical Geography
   HON 140  Symmetry in Science: From Microscopic to Macroscopic Systems
   MET 240  Meteorology
   PHS 151  Introductory Physical Science I
   PHS 371  Musical Acoustics
   PHY 127  Table Top Physics
   PHY 170  College Physics Laboratory I
   PHY 175  University Physics Laboratory I

E. CLEP General Examination credit is not accepted for University Program credit.

F. Credit from prior learning may not be used to meet any University Program or Competency requirement.

G. Unless the degree specifically prohibits it, courses that are required under Other Degree Requirements may also be used to satisfy University Program requirements, provided that the courses are also on the list of University Program courses. University Program courses may also be taken as part of a major or minor unless otherwise restricted.
H.1. Three options are available for completing the Subgroup IV-B requirement.

a. Subgroup IV-B may be completed by a minimum of 3 hours of approved study abroad experience. Appropriate experiences include study at any institution of higher education located outside the United States or Canada (except Quebec), or study in a CMU faculty-led course taught outside the United States or Canada (except Quebec) and approved by the General Education Sub-Committee. Such study is administered through the Office of International Education.

b. Subgroup IV-B requirements can be met by completion of 3 credits of an internship, practicum, service learning, or other resident program among members of a culture substantially different than the student’s own within the United States. Credit for study in such a culture will be determined on application to the General Education Sub-Committee. Applications are available in the Academic Senate Office.

c. Subgroup IV-B may be completed by a minimum of 3 hours of approved coursework in global cultures or foreign language. These courses are listed on page 123 of this Bulletin.

2. If you are interested in participating in international programs, you should note that you may also apply to the General Education Subcommittee for further University Program credit for coursework done abroad on a course-by-course basis. Documentation of the nature of the work done in each course (such as syllabi, course outlines, and assignments) is essential. It is your responsibility to collect and provide such documentation. If you are interested, contact the Director of International Programs for further information.

I. Retroactive credits may not be used to fulfill University Program requirements. See the Admission Requirements, Retention and Termination Standards section within individual foreign language majors and minors (French, German, and Spanish) for more information.

J. A course may fulfill only one subgroup.

General Education Requirements for Transfer Students

MACRAO Agreement
A person who transfers from a community college in Michigan with a transcript documented as having satisfied MACRAO Agreement will also have satisfied the University Program portion of the general education requirements at CMU.

University Program Transfer Block Option
Transfer students not satisfying the MACRAO Agreement may satisfy the requirements for the University Program with coursework transferred from other colleges or universities if they present a minimum of 27-30 semester hours distributed as follows:

Group I - Humanities
A minimum of six but not more than nine semester hours of coursework from at least two of the following disciplines:
- ENG (English, not including composition courses), ART (Art), BCA (Broadcasting), HST (History), MUS (Music), PHL (Philosophy), REL (Religion), TAI (Drama), HUM (General Humanities).

Group II - Natural Sciences
A minimum of six but not more than nine semester hours of coursework from at least two of the following disciplines. One course must include a laboratory section:
- AST (Astronomy), BIO (Biology), CHM (Chemistry), ESC (Earth Science), GEL (Geology), HSG (Health Promotion and Rehabilitation), MTH (Mathematics), PHY (Physics), PHS (Physical Sciences), SCI (General or Natural Science).

Group III - Social Sciences
A minimum of six but not more than nine hours of coursework from at least two of the following disciplines:
- ANT (Anthropology), CDO (Communication Disorders), HEV (Human Environmental Studies), PSC (Political Science), PSY (Psychology), SOC (Sociology), ECO (Economics), GEO (Geography), JRN (Journalism), SSC (Social Science).

Group IV - Integrative and Area Studies
This is identical to the CMU University Program. The student must transfer 6-9 hours of coursework on a course by course basis. Three hours must apply to Subgroup A, and three hours must apply to Subgroup C of Group IV of the CMU University Program. The requirement for Subgroup B may be met by the transfer of 3 hours of coursework or demonstrated completion of any of the alternative experiences described in paragraph H above.

NOTES:

1. Transfer students who have no more than 12 semester hours remaining on the University Program Transfer Block Option with completed coursework as distributed above (and prior to their first full-time enrollment at CMU) may use the University Program Transfer Block Option. For purposes of this rule, full-time means at least 12 hours attempted in a single semester. Any additional courses needed to meet the distribution requirements outlined above and to reach a total of 27-30 credit hours must be chosen from the appropriate categories within the list of CMU University Program courses in this Bulletin. For example, any deficiency in Group I transfer credit must be remedied by taking CMU University Program courses listed under Group I in this Bulletin. Any deficiency in transfer credit for Group IV Subgroup A must be remedied by taking a CMU course listed under Group IV Subgroup A in this Bulletin; any deficiency in Group IV Subgroup B must be remedied by taking a CMU course from Group IV Subgroup B; and any deficiency in Group IV Subgroup C must be remedied by taking a CMU course from Group IV Subgroup C. In choosing CMU courses to complete their 30 hours, students must also follow the rules stated on page 119 that govern selection of more than one course with the same designator.

2. In the event a student is not eligible to follow the transfer block option as distributed above, he/she will be required to complete the entire CMU University Program. Comparable coursework at another college or university may be transferred into the CMU University Program on a course by course basis when (a) it transfers as an equivalent to a CMU course previously approved as a University Program course or (b) it transfers without a course number and has a content congruent with the goals of the University Program and the CMU courses approved on the University Program.

3. Competency requirements apply to all students regardless of transfer status, including completion of competencies before 56 credit hours. Transfer students who enter the University with 44 or more credit hours must complete competencies by the end of the second semester at CMU. Six hours of English composition courses used to satisfy CMU competency requirements may not be used as elective hours on the CMU University Program. You must read the Competency Requirement section (page 124) carefully.

4. Transfer students who have no comparable coursework at another college or university are required to meet the CMU University Program requirements in the preceding section.
University Program Courses

For further information, see www.provost.cmich.edu/gened.

Group I. Humanities
(At least 6 semester hours)

Subgroup A. Human Events and Ideas
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 185</td>
<td>Introduction to Western Art, Part I</td>
</tr>
<tr>
<td>ART 285</td>
<td>Introduction to Western Art, Part II</td>
</tr>
<tr>
<td>BCA 288</td>
<td>History and Appreciation of the Cinema</td>
</tr>
<tr>
<td>BCA 290</td>
<td>French Film and Other Media</td>
</tr>
<tr>
<td>ENG 235</td>
<td>English Literature</td>
</tr>
<tr>
<td>ENG 236</td>
<td>English Literature</td>
</tr>
<tr>
<td>ENG 251</td>
<td>American Literature: Colonial Through the Romantic Period</td>
</tr>
<tr>
<td>ENG 252</td>
<td>American Literature: Realistic Period to the Present</td>
</tr>
<tr>
<td>ENG 261</td>
<td>Masterpieces of Ancient Literature</td>
</tr>
<tr>
<td>ENG 262</td>
<td>Masterpieces of European Literature</td>
</tr>
<tr>
<td>ENG 323</td>
<td>Fantasy and Science Fiction</td>
</tr>
<tr>
<td>ENG 330</td>
<td>Mythological Backgrounds of Western Literature</td>
</tr>
<tr>
<td>HON 130</td>
<td>Western Cultural and Intellectual Traditions</td>
</tr>
<tr>
<td>HST 101</td>
<td>The Development of Western Civilization</td>
</tr>
<tr>
<td>HST 102</td>
<td>The Development of Western Civilization</td>
</tr>
<tr>
<td>HST 110</td>
<td>The American Experience</td>
</tr>
<tr>
<td>HST 200</td>
<td>The Medieval Civilization</td>
</tr>
<tr>
<td>HST 238</td>
<td>Ancient Greece and Rome</td>
</tr>
<tr>
<td>HST 326</td>
<td>Women in America</td>
</tr>
<tr>
<td>HST 341</td>
<td>Renaissance and Reformation</td>
</tr>
<tr>
<td>HST 342</td>
<td>The Culture of Renaissance Italy (Study Abroad)</td>
</tr>
<tr>
<td>HUM 101</td>
<td>Introduction to the Humanities</td>
</tr>
<tr>
<td>MTH 200</td>
<td>Mathematics - A Cultural Approach</td>
</tr>
<tr>
<td>PHL 100</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHL 118</td>
<td>Moral Problems</td>
</tr>
<tr>
<td>PHL 218</td>
<td>Ethical Theory</td>
</tr>
<tr>
<td>PHL 230</td>
<td>Philosophy of Religion</td>
</tr>
<tr>
<td>PSC 275</td>
<td>Great Political Thinkers</td>
</tr>
<tr>
<td>PSC 371</td>
<td>American Political Thought</td>
</tr>
<tr>
<td>PSC 378</td>
<td>Modern Democratic Theory</td>
</tr>
<tr>
<td>REL 101</td>
<td>World Religions: An Introduction to the Study of Religion</td>
</tr>
<tr>
<td>REL 130</td>
<td>Religion in America</td>
</tr>
<tr>
<td>REL 250</td>
<td>The Old Testament and Its Age</td>
</tr>
<tr>
<td>REL 260</td>
<td>The New Testament and Its Age</td>
</tr>
<tr>
<td>REL 313</td>
<td>Christianity</td>
</tr>
<tr>
<td>REL 315</td>
<td>Judaism</td>
</tr>
<tr>
<td>WST 328</td>
<td>Women in America</td>
</tr>
</tbody>
</table>

Subgroup B. The Arts
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 126</td>
<td>Introduction to the Visual Arts</td>
</tr>
<tr>
<td>ART 319</td>
<td>Art Criticism</td>
</tr>
<tr>
<td>BCA 300</td>
<td>African and African American Film</td>
</tr>
<tr>
<td>ENG 194</td>
<td>Introduction to Literature</td>
</tr>
<tr>
<td>ENG 326</td>
<td>The Literary Dimensions of Film</td>
</tr>
<tr>
<td>ENG 334</td>
<td>Literary and Cultural Theory</td>
</tr>
<tr>
<td>HON 130</td>
<td>Western Cultural and Intellectual Traditions</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music in Society</td>
</tr>
<tr>
<td>MUS 114</td>
<td>Listening Experience</td>
</tr>
<tr>
<td>MUS 206</td>
<td>Understanding Musical Composition</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Jazz: An American Art Form</td>
</tr>
<tr>
<td>MUS 313</td>
<td>Musics of the World</td>
</tr>
<tr>
<td>TAI 170</td>
<td>Fundamentals of Interpretative Reading</td>
</tr>
<tr>
<td>TAI 175</td>
<td>Appreciation of the Theatre</td>
</tr>
</tbody>
</table>

1 A student must complete both semesters of HON 130 for credit in both I A and I B.
2 HST 326 and WST 328 are the same course.

Group II. Natural Sciences
(At least 6 semester hours)

Subgroup A. Descriptive Sciences
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 171</td>
<td>Human Origins: Introduction to Physical Anthropology</td>
</tr>
<tr>
<td>ANT 173</td>
<td>Laboratory in Physical Anthropology</td>
</tr>
<tr>
<td>AST 111</td>
<td>Astronomy</td>
</tr>
<tr>
<td>AST 112</td>
<td>Introduction to Astronomical Observation (Lab)</td>
</tr>
<tr>
<td>BIO 101</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIO 110</td>
<td>Concepts of Biology</td>
</tr>
<tr>
<td>BIO 151</td>
<td>Human Biology</td>
</tr>
<tr>
<td>BIO 240</td>
<td>Conservation of Natural Resources</td>
</tr>
<tr>
<td>CHM 111</td>
<td>The Interaction of Chemistry and Society</td>
</tr>
<tr>
<td>GEL 100</td>
<td>Introduction to Earth Systems</td>
</tr>
<tr>
<td>GEL 101</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>GEL 102</td>
<td>Physical Geology Laboratory</td>
</tr>
<tr>
<td>GEL 105</td>
<td>Dangerous Planet</td>
</tr>
<tr>
<td>GEL 205</td>
<td>Oceanography</td>
</tr>
<tr>
<td>GEL 230</td>
<td>Prehistoric Life</td>
</tr>
<tr>
<td>GEL 301</td>
<td>Geology and Michigan</td>
</tr>
<tr>
<td>GEO 105</td>
<td>Physical Geography</td>
</tr>
<tr>
<td>GEO 205</td>
<td>Oceanography</td>
</tr>
<tr>
<td>HEV 370</td>
<td>Nutrition</td>
</tr>
<tr>
<td>HON 140</td>
<td>Symmetry in Science: From Microscopic to Macroscopic Systems</td>
</tr>
<tr>
<td>HSC 211</td>
<td>Human Anatomy and Physiology</td>
</tr>
<tr>
<td>MET 201</td>
<td>Weather</td>
</tr>
</tbody>
</table>

Subgroup B. Quantitative and Mathematical Sciences
(At least 3 semester hours)

It is recommended that the mathematics competency be completed before enrolling in a Group II B course of the University Program.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 105</td>
<td>Introductory Quantitative Biology</td>
</tr>
<tr>
<td>CHM 101</td>
<td>Armchair Chemistry</td>
</tr>
<tr>
<td>CHM 120</td>
<td>Survey of Chemistry</td>
</tr>
<tr>
<td>CHM 127</td>
<td>Introductory Chemistry Laboratory</td>
</tr>
<tr>
<td>CHM 131</td>
<td>Introduction to Chemistry I</td>
</tr>
<tr>
<td>CHM 161</td>
<td>Principles of Chemistry</td>
</tr>
<tr>
<td>CPS 180</td>
<td>Principles of Computer Programming</td>
</tr>
<tr>
<td>GEL 130</td>
<td>Earth Processes</td>
</tr>
<tr>
<td>HON 140</td>
<td>Symmetry in Science: From Microscopic to Macroscopic Systems</td>
</tr>
<tr>
<td>MET 240</td>
<td>Meteorology</td>
</tr>
<tr>
<td>MTH 132</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MTH 203</td>
<td>Mathematics - A Modeling Approach</td>
</tr>
<tr>
<td>PHL 140</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>PHS 101</td>
<td>Survey of Physical Science</td>
</tr>
<tr>
<td>PHS 151</td>
<td>Introductory Physical Science I</td>
</tr>
<tr>
<td>PHS 371</td>
<td>Musical Acoustics</td>
</tr>
<tr>
<td>PHY 100</td>
<td>Conceptual Physics</td>
</tr>
<tr>
<td>PHY 110</td>
<td>Physics of Sports</td>
</tr>
<tr>
<td>PHY 127</td>
<td>Table Top Physics</td>
</tr>
<tr>
<td>PHY 130</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHY 170</td>
<td>College Physics Laboratory I</td>
</tr>
<tr>
<td>PHY 145</td>
<td>University Physics I</td>
</tr>
<tr>
<td>PHY 175</td>
<td>University Physics Laboratory I</td>
</tr>
</tbody>
</table>

3 Courses satisfying the Group II laboratory requirements.
4 GEL 205 and GEO 205 are the same course.
**Group III. Social Sciences**

(At least 6 semester hours)

**Subgroup A. Behavioral Sciences**
(At least 3 semester hours):

- BLR 325 Women and the Law
- CDO 130 Normal Speech and Language
- ECO 222 Behavioral Economics
- HEV 100 Human Growth and Development: Lifespan
- HON 120 The Individual and Community in Modern Society
- HST 228 American Business: A History
- PSC 101 Political Behavior
- PSY 100 Introduction to Psychology
- PSY 334 Psychology of Women
- SOC 201 Social Psychology
- WST 325 Women and the Law
- WST 334 Psychology of Women

**Subgroup B. Studies in Social Structures**
(At least 3 semester hours):

- ANT 170 Cultural Anthropology
- BLR 202 Legal Environment of Business
- ECO 110 Economics and Society
- ECO 280 Economies of the World
- ENG 175 The Nature of Language
- GEO 121 Cultures of the World
- GEO 317 Economic Geography
- HEV 212 The Family in Cultural Perspective
- HON 120 The Individual and Community in Modern Society
- HST 106 Twentieth Century: Western World Issues
- HST 111 United States to 1865
- HST 112 United States, 1865 to the Present
- HST 321 U.S. Social History Since 1865
- HST 347 Intro. to Gerontology: An Interdisciplinary Approach
- HST 379 Race, Class and Power: South Africa in the 20th Century
- HUM 301 Social Justice in a Global Society
- HUM 303 Law and Society: Great Trials
- HUM 340 Race, Class and Power: South Africa in the 20th Century
- HUM 370 The Rome of Augustus
- JRN 372 International and Cross-cultural Mass Communication
- PHL 225 Foundations of Cognitive Science
- PHL 325 Philosophy of Mind
- PSC 100 Introduction to Political Science
- PSC 221 Social Problems
- PSC 223 Urban Structures and Change
- PSC 261 State and Local Government
- SOC 100 Introductory Sociology

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**Group IV. Integrative and Area Studies**

(At least 9 semester hours)

**Subgroup A. Integrative and Multi-disciplinary Studies**
(At least 3 semester hours):

- ANT 101 Social Justice in a Global Society
- ANT 200 Education and Culture
- ANT 356 Primate Behavior
- ANT 365 Current American Indian Issues
- ART 363 Design: The Interface of Art and Industry
- BIS 104 Computers and Society
- CPS 100 Computers and Society
- ECO 230 Women in the Economy
- ENG 561 European Romanticism: A Comparative Approach
- ENV 101 Introduction to Environmental Studies
- GEO 120 Environmental Geography
- GRN 247 Intro. to Gerontology: An Interdisciplinary Approach
- HEV 252 Dress and Culture
- HEV 332 Human Shelter and Environment
- HSC 106 Healthy Lifestyles
- HST 221 Growing Up in America
- HST 340 The High Middle Ages
- HST 379 Race, Class and Power: South Africa in the 20th Century
- HUM 301 Medieval Synthesis: Love in the Middle Ages
- HUM 303 Law and Society: Great Trials
- HUM 340 Race, Class and Power: South Africa in the 20th Century
- HUM 370 The Rome of Augustus
- JRN 372 International and Cross-cultural Mass Communication
- PHL 225 Foundations of Cognitive Science
- PHL 325 Philosophy of Mind
- PSC 326 Women and Politics
- PSC 373 American Individualism
- PSC 375 Socialism, Fascism and Liberalism
- PSY 225 Foundations of Cognitive Science
- PSY 332 Evolutionary Psychology
- PSY 382 Perception
- PSY 387 Behavioral Neuroscience
- REL 207 Women in Religion
- REL 235 Religion and Social Issues
- REL 334 Death and Dying: Religious Dimensions
- SOC 101 Social Justice in a Global Society
- SOC 221 Social Problems
- SOC 223 Urban Structures and Change
- WST 207 Women in Religion
- WST 221 Growing Up in America
- WST 230 Women in the Economy
- WST 328 Women and Politics

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8 BLR 325 and WST 325 are the same course.
9 PSY 334 and WST 334 are the same course.
10 BLR 202 may not be applied toward the University Program requirements if a student is earning the Bachelor of Science in Business Administration degree.

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8 CPS 100 and BIS 104 are the same course.
9 ECO 230 and WST 230 are the same course.
10 HST 221 and WST 221 are the same course.
11 HST 379 and HUM 340 are the same course.
12 PHL 225 and PSY 225 are the same course.
13 PSC 326 and WST 326 are the same course.
14 REL 207 and WST 207 are the same course.
15 ANT 101 and SOC 101 are the same course.
Subgroup B. Studies in Global Cultures
(At least 3 semester hours)

Option 1 Study Abroad (At least 3 semester hours):
At least 3 credits of study at any institution of higher education located outside the United States or Canada (except Quebec) OR at least 3 credits of study in a CMU faculty-led course taught outside the United States and Canada (except Quebec) approved by the General Education Sub-Committee. NOTE: A study-abroad course may not double count for credit in both Subgroup IV-B and another subgroup.

OR

Option 2 Study In a Culture Substantially Different Than One’s Own (At least 3 semester hours)
At least 3 credits of an internship, practicum, service learning or other resident program among members of a culture substantially different than the student’s own within the United States and approved by the General Education Sub-Committee (see page 120, H. I., for details).

OR

Option 3 Global Studies or Foreign Language Courses At least 3 semester hours from the following:

ANT 175  Archaeology of the Americas
ANT 321  Cultures of Latin America
ANT 322  Cultures of Africa
ANT 324  Cultures of the South Pacific
ANT 326  Chinese Societies
CHN 101  Elementary Chinese I
CHN 102  Elementary Chinese II
ECO 281  Economic Development of the Pacific Rim
EUR 303  Comparative Politics: Eastern Europe
EUR 304  The European Economy
FRN 101  Elementary French I
FRN 102  Elementary French II
FRN 201  Intermediate French I
FRN 202  Intermediate French II
GEO 373  Latin America
GER 101  Elementary German I: Language and Culture
GER 102  Elementary German II: Language and Culture
GER 201  Intermediate German I
GER 202  Intermediate German II
HEV 318  Indigenous Families and Survival: A Global Perspective
HST 163  The Latin American Experience
HST 168  The Far East
HST 176  The African Experience
HST 236  The Near East to Alexander
HST 237  The Middle East Since Muhammad
JPN 101  Elementary Japanese I
JPN 102  Elementary Japanese II
JPN 201  Intermediate Japanese I
JPN 202  Intermediate Japanese II
LAT 101  Elementary Latin I
OJB 101  Elementary Ojibwe I
PHL 305  Chinese Philosophy
PSC 340  African Political Systems and Processes
PSC 341  Comparative Politics: Eastern Europe
PSC 343  Southeast Asian Political Systems and Processes
PSC 344  East Asian Political Systems and Processes
PSC 345  Middle Eastern Political Systems
PSC 347  Comparative Politics: Western Europe
PSC 348  Latin American Political Systems
PSC 349  Panama: Exploring Politics and Society in a Central American Nation
REL 220  Religious Traditions of China
REL 221  Religious Traditions of Japan
REL 222  Religious Traditions of India
REL 314  Islam
REL 320  The Buddhist Tradition
RUS 101  Elementary Russian I
SOC 310  Life in Russia Today
SPN 101  Elementary Spanish I
SPN 102  Elementary Spanish II
SPN 201  Intermediate Spanish I
SPN 202  Intermediate Spanish II
REL 220
REL 320
RUS 101
SOC 310
SPN 101
SPN 201
Note: Under Option 3, University Program is a minimum of 30 hours and if necessary, you must select additional courses from any of the lists for any subgroup to complete 30 semester hours.

Subgroup C. Studies in Racism and Cultural Diversity in the United States
(At least 3 semester hours)

ANT 320  North American Indian Cultures
ANT 368  Hispanic Cultures in the U.S.
BLR 222  The Search for Racial Justice through Law
BLR 365  Native American Justice through Law
ENG 329  African American Literature
ENG 582  Cultural Pluralism in Young Adult and Children’s Literature
HEV 110  Oppression: Roots and Impact on Human Development in the United States
HST 323  History of Native Americans
HST 324  African-American History to 1915
HST 325  African-Americans in Twentieth Century America
JRN 380  Racial Diversity: Mass Media’s Role
LAR 145  Racism and Diversity in America
PHL 345  The Civil Rights Movement
PSC 125  African-American Politics
PSC 325  The Civil Rights Movement
REL 140  Religion, Race, and Discrimination in America
REL 240  African-American Religion
REL 342  From Spirituals to Gospel
REL 345  The Civil Rights Movement
REL 347  African American Reflections on Racism
SOC 323  Racism and Inequality
SOC 345  The Civil Rights Movement

Note: Only one time may you take a second course with the same designator to satisfy your University Program requirement, with the exception of a sequence of foreign language courses with the same designator and courses taken for study abroad credit (see Subgroup IV-B).
Competency Requirements

CMU expects its graduates to be competent in written English, oral English, and mathematics. Prior to graduation, all students must demonstrate their competency as detailed in this section.

Written English Competency Requirement

To satisfy the Written English Competency Requirement, students must complete three separate but related tasks:

I. Freshman Composition

Students should satisfy the requirement for freshman composition during their freshman year. Students can satisfy the requirement in one of three ways:

1. Earning a grade of C (2.0) or better in ENG 101, Freshman Composition. (Students should be aware that ENG 101 has a prerequisite of ENG 100 or a satisfactory Freshman Writing Placement Score.) OR
2. Successfully completing one of the following: CLEP English Composition General Examination with Essay, the AP English Language and Composition Examination, the AP English Composition and Literature Examination, or the International Baccalaureate English Language Examination (higher or subsidiary level). OR
3. Earning a grade of C (2.0) or better in ENG 103, Freshman Writing, and earning credit for ENG 099, Writing Workshop.

Students wishing to fulfill this requirement by passing the CLEP English Composition General Examination with Essay must take the exam by the end of their first semester at CMU. The best place to obtain exam information is from the Computer-based Testing Center (for more information, see http://www.academicaffairs.cmich.edu/CTC/ctc.shtml or call 774-1092).

Students wishing to fulfill the requirement by taking ENG 101 or ENG 103 must enroll in that course in either their first or second semester at CMU and continue to enroll in subsequent semesters until the requirement is satisfied.

II. Writing Across the University Program

After completing the basic freshman composition requirement, students should continue to enroll in courses in the University Program. Each of the courses in the University Program requires a significant amount of meaningful writing. Completion of the University Program constitutes demonstration that the writing skills developed in ENG 101 (or its equivalent) have been sustained and developed by writing assignments in courses across the program.

III. Intermediate Composition

Students must complete ENG 201: Intermediate Composition. This course is a sophomore-level course; it must be taken after students have completed ENG 101 or its equivalent but before they have completed 56 hours of coursework. This requirement is met by earning a grade of C or better.

Oral English Competency Requirement

Oral competency must be completed before 56 hours of coursework.

There are two ways by which a student may satisfy the Oral English Competency Requirement:

1. Earning a grade of C (2.0) or better in one of the following courses:
   COM 101 Introduction to Communication
   COM 267 Introduction to Debate
   COM 269 Practicum in Debate - Forensics
   COM 357 Public Speaking
   TAI 170 Fundamentals of Interpretative Reading
   TAI 302 Voice and Diction

   Students who wish to use this option will be screened for possible speech or hearing disorders as part of the course.

2. Successfully completing the Oral English Competency Examination. Students who wish to take this option must obtain a screening for possible speech and hearing disorders. Students seeking to satisfy the Oral English Competency Requirement by successfully completing the Oral English Competency Examination must pass the exam by the time they have completed 54 hours of academic credit. Students who transfer more than 54 credit hours to CMU may take the competency examination only during their first semester at CMU.

Oral English Competency Examination

The Oral English Competency Examination includes the development and delivery of a ten to fifteen minute public speech accompanied by a properly typewritten, detailed outline. The student will deliver the speech to a hypothetical audience and will be evaluated by a judge.

Exam results are reported in writing to the student. Students who receive notice of unsatisfactory examination results will be allowed to retest. A student may retest only once. Students who fail twice must enroll in one of the Oral English Competency courses.

The Oral English Competency Examination is administered twice a year, prior to the beginning of the fall and spring semesters. Guidelines, registration materials, and fee information maybe obtained. Guidelines, registration materials, and fee information may be obtained by contacting the Office of Academic Affairs, 312 Warriner Hall, 774-3631.

Screening for Speech and Hearing Disorders

The screening for speech and hearing disorders for option two above incurs a cost of $12.50. The screening takes place at the CMU Speech and Hearing Clinic in the Carls Center for Clinical Care and Education. The following classes incorporate screening as part of their requirements: COM 101, TAI 302, TAI 170, COM 357, COM 267, ENG 199, and HON 110. Teacher education students transferring speech classes to CMU should take the screening during the second or third week of the fall or spring semester during regularly scheduled group times, which can be obtained by visiting or calling the office. Other screening may be arranged by calling the CMU Speech and Hearing Clinic. Screening is not available between semesters, during registration week, during the last week of the semester, or during exam week. The Carls Center for Clinical Care and Education is located in the Health Professions Building and may be reached at (989)774-3904.

Written and Oral English Competencies for Honors Students

Honors students earning a grade of C (2.00) or better in HON 110, Speaking and Writing with Critical Awareness, fulfill the Oral English Competency and the Freshman Composition portion of the Written English Competency requirements. HON 110 is intended primarily for Centralis Scholars. Honors students must still fulfill parts II and III of the Written English Competency and the Mathematics Competency requirements as specified in those sections.

Written and Oral English Competencies for Students from Other Nations

Those students from other nations who are required to take ENG 198 and ENG 199, American Language for International Students, will fulfill the Basic Freshman Composition portion of the Written English Competency Requirement and the Oral English Competency Requirement by earning a C (2.00) or better in the course. Students must still fulfill parts II and III of the Written English Competency and the Mathematics Competency requirements as specified in those sections.


**Mathematics Competency Requirement**

Math competency must be completed before 56 hours of coursework.

There are two ways by which a student may satisfy the Mathematics Competency Requirement:

1. Earning a grade of C (2.00) or better in any mathematics (MTH) or statistics (STA) course numbered 105 or above (excluding MTH 151, MTH 152, or MTH 200), OR

2. Successfully completing the Mathematics Competency Examination, the International Baccalaureate Mathematics Examination (higher or subsidiary level), or any CLEP or AP examination approved for credit in a mathematics (MTH) or statistics (STA) course numbered higher than MTH 105 (except MTH 151, MTH 152, or MTH 200).

**Mathematics Competency Examination**

Students seeking to satisfy the Mathematics Competency Requirement by successfully completing the Mathematics Competency Examination must pass the exam by the time they have completed 36 hours of academic credit at CMU. Students who transfer more than 36 credit hours to CMU may take the competency examination only during their first semester at CMU.

The Mathematics Competency Examination consists of 60 questions from which an overall score and five subscores are computed. The Mathematics Competency Requirement is satisfied by an overall score of at least 80% on the test together with established minimum scores on each of the five subsections of the test: (1) arithmetic operations, exponents and number theory; (2) polynomials; (3) algebraic notation, equations, inequalities and applications; (4) percent, ratio and proportion, measurement; (5) functions, line and graphs.

The examination is administered four times each semester. Examination results are reported in writing to the student with the following information: the overall score together with individual subscores, a statement of performance objectives which the student has not satisfied, instruction for retesting, if applicable, and a list of remedial options such as recommended textbooks and/or coursework at CMU, if applicable.

Students who receive notice of unsatisfactory examination results will be allowed to retest on any of the scheduled dates, subject to the requirement that a student may retest no more than two times. A student who receives an overall score of less than 80% will retake the entire exam. A student who receives an overall score of 80% or higher, but scores below the minimum level required on one or more subsections, needs only to retest on those areas with subscores below the minimum.

The Mathematics Competency Examination is administered by the Computer-Based Testing Center (for more information, see http://www.academicaffairs.cmich.edu/CBTC/cbtc.shtml or call 774-1092).

**General Requirements for all Competencies**

1. A student must demonstrate competency in each of the competency areas described in the Bulletin under which the student graduates.

2. Competencies must be completed before 56 hours of coursework.

3. A student attempting to satisfy a specific competency requirement in a given academic year will use the method(s) and requirement(s) in effect that year. The method(s) and requirement(s) may change from year to year.

4. A competency requirement in a specific area, once satisfied, remains valid until the student graduates.

5. If the chairperson of the department most directly concerned with a competency judges that a student has satisfied a competency requirement by means other than those approved by the Academic Senate, that chairperson will certify in writing to the Registrar that the student has satisfied the requirement. These departments are:
   - Written English Competency - Department of English Language and Literature
   - Oral English Competency - Department of Communication and Dramatic Arts
   - Mathematics Competency - Department of Mathematics

6. Students with disabilities who, by virtue of these disabilities, might be prevented from taking competency examinations or otherwise meeting competency requirements may have such requirements waived by the Director of Student Disability Services or by the appropriate department chairperson as listed above, including for Oral English, the chair of the Department of Communication Disorders.
Majors and Minors

A major is the field of study in which you specialize while earning your university degree. Often degree requirements include an appropriate minor study area to complement the major. Through its departments, CMU provides majors and minors in a wide variety of academic and professional disciplines. A smaller number of interdepartmental and interdisciplinary majors and minors is also offered.

Requirements for majors and minors are listed in the individual departmental descriptions, interdepartmental, and interdisciplinary sections of this Bulletin. A major consists of at least thirty semester hours; a minor, at least twenty semester hours. The courses to constitute must be chosen subject to the approval of your departmental, interdisciplinary, or interdepartmental advisor. Degree requirements detail which majors and minors are permitted on each degree. Central Michigan University credits included in majors and minors used to meet graduation requirements must average 2.0 or better. You should note, however, that some majors and minors have higher grade point requirements. Be sure to check the Admissions, Retention and Termination Standards for your major.

When you decide on your major, you should contact the departmental office of that major to be assigned an advisor. (Example: history majors should contact the Department of History.) You and your major advisor will discuss your educational goals and you will complete a “Major Authorization Form.” This form originates in the department of your major and details course requirements for your major (and concentration in the major when applicable*), and is signed by both you and the advisor for your major. If you are majoring in an interdisciplinary or interdepartmental area or special program, this form is obtained from the appropriate advisor. The Class Schedule, printed each semester, lists departments and interdisciplinary and interdepartmental advisors for majors and minors. Students need to officially declare their major by the time they earn 56 hours.

To be assigned a minor advisor, or to complete a “Minor Authorization Form,” you will follow the same procedures to those listed above.

*A concentration is a distinct and specialized program of study authorized within a student’s major. A minimum of twelve hours is required for an undergraduate concentration. All university-approved concentrations will be listed on the student’s transcript.

Policies Concerning Majors and Minors

The following policies concerning majors and minors may apply to your degree work at CMU.

B.S. in Ed. If you are following either the Elementary or Secondary Certification under the Bachelor of Science in Education degree, the major and minor presented for certification must be in different subjects.

Non-Teaching. Under a non-teaching degree the minor may not have the same name as the major.

Courses fulfilling more than one requirement. Hours which are counted toward departmental majors and minors may also be counted as partial fulfillment of other departmental, interdisciplinary and/or interdepartmental major or minor requirements, provided that: a) the student offers the required number of semester hours for graduation, and b) no course is counted toward both a major and a minor with the same name.

This rule does not apply to majors and minors on the B.S. in Ed. degree.

Degree, major or minor from another Bulletin. Most students will complete requirements for graduation following the Bulletin in effect at the time of their initial registration. A Bulletin published after initial registration may be chosen by the student when it is to his or her advantage. However, no student may graduate under the requirements of a Bulletin published more than seven calendar years prior to the date of the student’s graduation. Students following a program which leads to teacher certification have different limitations and should consult the section in this Bulletin titled “Standards Leading to Teacher Certification.” An undergraduate student completing graduation and degree requirements on a degree program appearing in any CMU Bulletin may elect either majors or minors on that same degree in a subsequent CMU Bulletin. This option is available when approved by an appropriate departmental advisor and noted on the student’s major or minor authorization form.

Additional major or minor. In addition to satisfying major and minor requirements, you may request authorization of an additional major or minor listed in the Bulletin even if it is not listed as acceptable for your chosen degree. Upon completion of your degree and graduation requirements the additional major or minor, if successfully completed, will be recorded.

Undergraduate Subtitled Courses. Credit earned in undergraduate courses titled Studies, Topics, Issues, or Workshops (including Special, Advanced, or Selected) may not constitute more than 50 percent of an undergraduate major or minor. Graduate and undergraduate courses which are subject to limitation under the policy on unspecified content or variable credit are listed in each department.

Majors and Minors Chart

The following chart identifies available majors and minors at CMU, lists the degree program(s) to which the majors may be applied, and indicates if teaching certification may be earned.

The chart is divided by teaching and non teaching majors and minors. If you want to teach, teaching certification is usually pursued on the B.S. in Ed. degree. There are, however, several degrees (B.A., B.S., or B.A.A.) that allow you to earn teaching certification for those majors and minors that indicate certification is available. Consult your departmental advisor.

Sometimes majors or minors are not listed under the titles for which you are searching. For example, there is a Physical Education major for students who want teaching certification and a Sport Studies major for those who want physical education studies without teaching certification. There is a Speech major for students who want communications studies with teaching certification, and an Interpersonal and Public Communication major for those who want communications studies without teaching certification. Students of speech-language pathology need to look under communication disorders. Students pursuing studies in hotel and restaurant management want the Hospitality Services Administration major. The music department offers a variety of specialties, but each is studied under the Music major. If you can’t find a particular major or minor on this chart by name, consult the appropriate departmental description in this catalog or check the Bulletin’s index under the subject name.

To find the degree and graduation requirements for any specific major or minor, consult the index for reference to the departmental listing. Direct your questions concerning any major or minor to the appropriate department.

A listing of departmental, interdisciplinary, and interdepartmental advisors may be found by consulting a current “Class Schedule” published every semester.
### Majors and Minors

<table>
<thead>
<tr>
<th>Major or Minor</th>
<th>Major or Minor</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>(*offers concentrations)</td>
<td>(and applicable degrees)</td>
<td>May not be available on all degrees. Please check degree pages to find where minor is applicable and discuss your choice with your major advisor.</td>
</tr>
</tbody>
</table>

- **Actuarial Science**: Yes (BA; BS)
- **Accounting**: Yes (BSBA)
- **Accounting Information Systems**: Yes (BSBA)
- **Advertising**: No
- **Allied Health**: No
- **American Ethnic Studies**: No
- **American Indian Studies**: No
- **American Sign Language**: No
- **Anthropology**: Yes (BA; BS)
- **Apparel Merchandising and Design***: Yes (BA; BAA; BS)
- **Art ***: Yes (BA; BAA; BFA; BS)
- **Art History**: No
- **Athletic Coaching**: No
- **Athletic Training/Sports Medicine**: Yes (BA; BAA; BS)
- **Bilingual Bicultural Education-Ojibwe**: No
- **Bilingual Bicultural Education-Spanish**: No
- **Biochemistry**: Yes (BA; BS)
- **Biology**: Yes (BS; Secondary or Secondary with Emotional/Cognitive Impairment Endorsement) No
- **Biological Science**: Yes (BA; BS) No
- **Biology/general option**: Yes (BA; BS) also see below No
- **Biology/natural resources option**: Yes (BA; BS) No
- **Biology/pregraduate, preprofessional option**: Yes (BA; BS) No
- **Broadcast & Cinematic Arts**: Yes (BA; BAA; BFA; BS) Yes
- **Business Administration**: No Yes
- **Business Teacher Education (BTE) ***: Yes (BSEd: Secondary or Secondary with Emotional/Cognitive Impairment Endorsement) No
- **Chemistry**: Yes (BA; BS; BSEd: Secondary or Secondary with Emotional or Cognitive Impairment Endorsement) Yes
- **Chemistry-Physics**: Yes (BSEd: Secondary or Secondary with Emotional or Cognitive Impairment Endorsement) No
- **Child Development ***: Yes (BA; BAA; BS; BSEd: Elementary - requires two substantive minors; consult HEV advisor prior to selecting this major.) Yes
- **Cognitive Science**: Yes (BA; BS) No
- **Communication***: Yes (BA; BAA; BS) Yes
- **Communication Disorders**: Yes (BA; BS) Yes
- **Computer Science**: Yes (BA; BS) Yes
- **Computer Science-Mathematics**: Yes (BA; BS) No
- **Computer Technology**: Yes (BA; BS) No
- **Computer-Integrated Manufacturing**: Yes (BA; BS) No
- **Construction Management**: Yes (BA; BAA; BS) No
- **Dance**: No Yes
- **Dietetics**: Yes (BA; BS) No
- **Earth Science ***: Yes (BA; BS; BSEd: Secondary or Secondary with Emotional/Cognitive Impairment Endorsement) Yes
- **Economics**: Yes (BA; BS; BSBA) Yes
- **Electrical Engineering**: Yes (BSEE) No
- **Electronic Engineering Technology**: Yes (BSET) No
- **English ***: Yes (BA; BS; BSEd: Elementary, Secondary, or Secondary with Emotional/Cognitive Impairment Endorsement) Yes
- **English as a Second Language**: No Yes
- **Entrepreneurship**: Yes (BAA) Yes

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<table>
<thead>
<tr>
<th>Major or Minor</th>
<th>Major (and applicable degrees)</th>
<th>Minor</th>
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<tbody>
<tr>
<td>Ethics, Values, and Society</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>European Studies</td>
<td>Yes (BA; BS)</td>
<td>Yes</td>
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<tr>
<td>Event Management</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Exercise Science</td>
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<td>Yes</td>
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<tr>
<td>Family Life &amp; Human Sexuality</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Family Studies</td>
<td>Yes (BA; BAA; BS)</td>
<td>No</td>
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<tr>
<td>Family Studies: Life Management Education</td>
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<tr>
<td>Finance</td>
<td>Yes (BSBA)</td>
<td>Yes</td>
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<tr>
<td>Foodservice Administration</td>
<td>Yes (BA; BAA; BS)</td>
<td>Yes</td>
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<tr>
<td>French *</td>
<td>Yes (BA; BS; BSEd: Elementary or Secondary)</td>
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<tr>
<td>General Business Administration *</td>
<td>Yes (BSBA)</td>
<td>No</td>
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<tr>
<td>General Management</td>
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<td>Yes</td>
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<tr>
<td>Geographic Information Sciences</td>
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<tr>
<td>Geography *</td>
<td>Yes (BA; BS; BSEd: Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<td>Geology *</td>
<td>Yes (BA; BS)</td>
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<tr>
<td>German</td>
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<td>Gerontology</td>
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<td>Global Business</td>
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<tr>
<td>Global Justice</td>
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<tr>
<td>Health Administration</td>
<td>Yes (BAA; BS)</td>
<td>No</td>
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<tr>
<td>Health Fitness in Preventive and Rehabilitative Programs</td>
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<tr>
<td>History</td>
<td>Yes (BA; BS; BSEd: Elementary, Secondary, or Secondary with Emotional/Cognitive Impairment Endorsement)</td>
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<td>Hospitality Services Administration*</td>
<td>Yes (BSBA)</td>
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<tr>
<td>Human Development</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Human Resources Management</td>
<td>Yes (BSBA)</td>
<td>No</td>
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<tr>
<td>Humanities</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Hydrogeology/Environmental Geology</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Industrial Education</td>
<td>Yes (BSEd: Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<tr>
<td>Industrial Safety</td>
<td>No</td>
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<tr>
<td>Industrial Technology Management *</td>
<td>Yes (BA; BAA; BS)</td>
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<tr>
<td>Industrial Technology</td>
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<td>Information Technology</td>
<td>Yes (BA; BS)</td>
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<tr>
<td>Integrated Science</td>
<td>Yes (BSEd: Elementary or Secondary)</td>
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<tr>
<td>Integrative Public Relations</td>
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<td>Interior Design</td>
<td>Yes (BA; BAA; BS)</td>
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<tr>
<td>International Business</td>
<td>Yes (BSBA)</td>
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<tr>
<td>Journalism *</td>
<td>Yes (BA; BS)</td>
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<tr>
<td>Language Arts</td>
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<td>Latin American Studies</td>
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<tr>
<td>Law and Economics</td>
<td>Yes (BA; BS; BSBA)</td>
<td>No</td>
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<tr>
<td>Leadership</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Legal Studies</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Logistics Management</td>
<td>Yes (BSBA)</td>
<td>No</td>
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<tr>
<td>Management (See General, Human Resources, Logistics, Operations, Purchasing &amp; Supply, or Retail Management)</td>
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<tr>
<td>Management Information Systems</td>
<td>Yes (BSBA)</td>
<td>Yes</td>
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<tr>
<td>Manufacturing Engineering Technology</td>
<td>Yes (BSET)</td>
<td>No</td>
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<td>Marketing *</td>
<td>Yes (BSBA)</td>
<td>Yes</td>
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<tr>
<td>Mathematics</td>
<td>Yes (BA; BS; BSEd: Elementary, Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
<td>Yes</td>
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<tr>
<td>Mechanical Engineering</td>
<td>Yes (BSME)</td>
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<tr>
<td>Mechanical Engineering Technology</td>
<td>Yes (BSET)</td>
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<tr>
<td>Major or Minor</td>
<td>Major (and applicable degrees)</td>
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<tr>
<td>Media Design, Production and Technology</td>
<td>No</td>
<td>Yes</td>
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<td>Meteorology</td>
<td>Yes (BS)</td>
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<td>Middle Level Education</td>
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<td>Military Science</td>
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<td>Museum Studies</td>
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<tr>
<td>Music *</td>
<td>Yes (BA; BMus; BMusEd; BS)</td>
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<td>Music Theatre</td>
<td>Yes (BFA)</td>
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<td>Natural Resources</td>
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<td>Neuroscience</td>
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<td>Nutrition</td>
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<td>Operations Management</td>
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<td>Outdoor and Environmental Education</td>
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<td>Yes</td>
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<td>Personal and Community Health</td>
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<td>Personal Financial Planning</td>
<td>Yes (BSBA)</td>
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<td>Philosophy</td>
<td>Yes (BA; BS)</td>
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<td>Yes (BA; BS; BSEd: Elementary, Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<td>Physics *</td>
<td>Yes (BA; BS; BSEd: Secondary)</td>
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<td>Planned Program</td>
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<td>Political Science *</td>
<td>Yes (BA; BS)</td>
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<td>Purchasing &amp; Supply Management</td>
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<td>Reading in Elementary Grades</td>
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<td>Real Estate: Development and Finance</td>
<td>Yes (BSBA)</td>
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<td>Recreation *</td>
<td>Yes (BA; BAA; BS)</td>
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<td>Religion</td>
<td>Yes (BA; BS)</td>
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<td>Retail Management</td>
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<td>School Health Education</td>
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<td>Science (see also Integrated Science)</td>
<td>No</td>
<td>Yes</td>
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<td>Yes (BA; BS)</td>
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<td>Social Studies</td>
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<td>Social Work</td>
<td>Yes (BSW)</td>
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<td>Spanish*</td>
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<td>Special Education (see Teachers of Students with Emotional or Cognitive Impairments)</td>
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<td>Special Physical Education</td>
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<td>Speech</td>
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<td>Sport Studies</td>
<td>Yes (BA; BAA; BS)</td>
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<td>Statistics</td>
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<td>Substance Abuse Education: Prevention, Intervention, and Treatment</td>
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<td>Teachers of Students with Emotional Impairment</td>
<td>Yes (BSEd: Elementary with or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
<td>No</td>
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<td>Teachers of Students with Cognitive Impairment</td>
<td>Yes (BSEd: Elementary with or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<td>Theatre &amp; Interpretation *</td>
<td>Yes (BA; BFA; BS)</td>
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<td>Visual Arts Education</td>
<td>Yes (BSEd: Secondary)</td>
<td>No</td>
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<tr>
<td>Women’s Studies</td>
<td>Yes (BA; BAA; BS)</td>
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*offers concentrations (and applicable degrees) May not be available on all degrees. Please check degree pages to find where minor is applicable and discuss your choice with your major advisor.
Interdisciplinary Majors and Minors

Interdisciplinary programs draw from two or more academic disciplines that work together to create a powerful learning experience emphasizing integrative learning, integrative thinking, critical questioning and creative problem solving.

Benefits of Interdisciplinary study:
- Learn the value of integrating the study of various academic disciplines suited to your life-long learning interests
- Embrace new ideas that you couldn’t imagine while studying just one subject in isolation from others
- Become an interdisciplinary thinker who analytically and creatively embraces new and futuristic ideas
- Develop collaboration skills while working with others who have different perspectives on problems than yours
- Be prepared for graduate and professional study, and for careers in new and emerging fields

This section lists majors and minors that are interdisciplinary. Most majors and minors are described within their appropriate departments. Consult the index of this bulletin under the name of the major or minor you want to find. Reminder: when choosing a teaching major or minor, you must have a 2.7 GPA to be approved for student teaching.

Interdisciplinary

Actuarial Science Major

B.A.; B.S. degrees

Why Study Actuarial Science?

Actuaries study risk. The work is quite quantitative. About 70% of actuaries work for insurance companies; about 25% for consulting firms, and about 5% for government agencies. The publication Jobs Rated Almanac has always rated actuary as one of the top five jobs in the United States. In the 2002 edition (sixth edition), it is rated number 2.

Actuarial Science at CMU

The Actuarial Science major is an interdisciplinary major with an advisor from the Department of Mathematics. It offers courses to prepare students for the first actuarial exam jointly administered by the Society of Actuaries and the Casualty Actuarial Society and much of the coursework to prepare students for the second actuarial exam. Students should try to pass at least the first exam by the time they graduate from CMU. The major also provides coursework to prepare a graduate for the business world in which the insurance industry is located. More direct contact with actuaries comes through the student organization Gamma Iota Sigma.

This major consists of 62-63 hours of course work in mathematics, statistics, accounting, economics, finance, business law, and computer science. The major is designed to give the student the type of background necessary to pursue a career in actuarial science and, in particular, to prepare the student to pass two actuarial exams. There is no required minor. Advisors are from the Department of Mathematics.

For information, contact Thomas Miles, advisor, 774-6518, Pearce 211, miles1tj@cmich.edu.

Admission Requirements; Retention & Termination Standards

As early as possible, a student interested in actuarial science should contact the actuarial science advisor. It is important to get through the calculus sequence as soon as possible in order to give the student maximum opportunity to pass actuarial exams.

NOTE to students with an Actuarial Science major and Mathematics minor: for this combination students must take six hours of mathematics courses numbered 300 or above which are not counted toward the Actuarial Science major.

Required Courses I (51 hours)

ACC 201 - Concepts of Financial Accounting 3(3-0)
ACC 202 - Concepts of Managerial Accounting 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
FIN 317 - Insurance Planning 3(3-0)
FIN 332 - Managerial Finance 3(3-0)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
MTH 233 - Calculus III 4(4-0)
MTH 332 - Introduction to Analysis 3(3-0)
MTH 539 - Mathematical Foundations of Actuarial Science 3(3-0)
STA 575 - Statistical Programming for Data Management and Analysis 3(3-0)
STA 584 - Mathematical Statistics I 3(3-0)
STA 585 - Mathematical Statistics II 3(3-0)

Required Courses II (2-3 hours)

Select one of the following:

- CPS 150 or any programming language course (2 or 3 credits).
- CPS 150 - FORTRAN Programming 2(2-0)

Required Courses III (3 hours)

Select one of the following:

- ECO 385 - Introduction to Econometrics 3(3-0)
- STA 580 - Applied Statistical Methods I 3(3-0)

Required Courses IV (3 hours)

Select one of the following:

- ECO 532 - Economic Forecasting 3(3-0)
- STA 589 - Time Series Forecasting 3(3-0)

Electives (3 hours)

Select one of the following in consultation with the advisor:

- BIS 360 - Business Communication 3(3-0)
- ECO 365 - Intermediate Microeconomic Theory 3(3-0)
- ECO 370 - Intermediate Macroeconomic Theory 3(3-0)
- FIN 442 - Intermediate Financial Management 3(3-0)
- MTH 532 - Advanced Calculus I 3(3-0)

Total: 62-63 semester hours

Interdisciplinary Majors and Minors
Interdisciplinary

American Indian Studies Minor
B.A., B.A.A., and B.S. degrees

Required Courses (12 hours)
Select 6 hours of OBJ
ANT 320 - North American Indian Cultures 3(3-0)
HST 323 - History of Native Americans 3(3-0)
OBJ 101 - Elementary Ojibwe I 3(3-0)
OBJ 102 - Elementary Ojibwe II 3(3-0)
OBJ 201 - Intermediate Ojibwe I 3(3-0)
OBJ 202 - Intermediate Ojibwe II 3(3-0)

Electives (12 hours)
ANT 175 - Archaeology of the Americas 3(3-0)
ANT 365 - Current American Indian Issues 3(3-0)
ENG 328 - Literature of the American Indian 3(3-0)
PSY 333 - Psychology of Racism 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)

Up to 6 hours of additional American Indian language, special topics, or independent study with approval of the minor advisor.
Total: 24 semester hours

Interdisciplinary

Bilingual Bicultural Education Ojibwe Minor
B.S. in Ed. degree, all certifications

This minor is an interdisciplinary selection of courses to prepare the student to teach children of Ojibwe heritage.

By the end of the program of study, a student must demonstrate by examination Ojibwe language oral and written competencies at the minimal level of a college minor.

The minor is authorized by the bilingual education advisor in the Department of Teacher Education and Professional Development. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Required Courses (15 hours)
EDU 514 - Principles and Techniques for Individualizing Instruction 3(3-0)
EDU 506 - Principles and Techniques for Individualizing Instruction 3(3-0)
ENG 375 - Introduction to Linguistics 3(3-0)
ENG 571 - Teaching of English to Speakers of Other Languages 3(3-0)
HST 323 - History of Native Americans 3(3-0)

Electives I (3 hours)
Select one of the following:
CDO 130 - Normal Speech and Language Acquisition 3(3-0)
EDU 506 - Principles and Techniques for Individualizing Instruction 3(3-0)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Electives II (6 hours)
Select two of the following:
ANT 175 - Archaeology of the Americas 3(3-0)
ANT 200 - Education and Culture 3(3-0)
ANT 320 - North American Indian Cultures 3(3-0)
ANT 365 - Current American Indian Issues 3(3-0)
ENG 328 - Literature of the American Indian 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)
Total: 24 semester hours

Interdisciplinary

Bilingual Bicultural Education Spanish Minor
B.S. in Ed. degree, all certifications

This minor is an interdisciplinary selection of courses to prepare the student to teach children of Spanish-speaking background who have limited English language skills.

By the end of the program of study, a student must demonstrate by examination Spanish language oral and written competencies at the minimal level of a college minor.

The Bilingual Bicultural Education-Spanish Minor is offered by the Department of Teacher Education and Professional Development and is authorized by the bilingual education advisor in that department. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Required Courses (18 hours)
ANT 368 - Hispanic Cultures in the U.S. 3(3-0)
EDU 506 - Principles and Techniques for Individualizing Instruction 3(3-0)
EDU 514 - Methods and Materials for Bilingual Bicultural Education 3(3-0)
ENG 375 - Introduction to Linguistics 3(3-0)
ENG 571 - Teaching of English to Speakers of Other Languages 3(3-0)

Electives (6 hours)
ANT 200 - Education and Culture 3(3-0)
ANT 321 - Cultures of Latin America 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)
SPN 310 - Study Abroad 1-12(Spec)
SPN 377 - Culture and Civilization of Latin America 3(3-0)

Total: 24 semester hours

Interdisciplinary

Cognitive Science Major
B.A., B.S. degrees

The major in Cognitive Science consists of coursework in Computer Science, Philosophy and Psychology. This major consists of 27 hours in the core, 12 hours of electives, and up to 20 hours of corequisites and prerequisites. A total of 59 semester hours may be required. The objectives of the program are to give you:
1. a balanced education in the study of cognition from the perspectives of computer science, philosophy, and psychology;
2. a current education in the most recent approaches to cognitive modeling in each of the three disciplines;
3. a sound preparation for career opportunities or further professional study in the areas of industry and research that are direct consequences of the application of computer technology to the study of cognition;
4. a flexible program allowing you to focus your interest in either of the related disciplines by concentrations of electives in your choice of fields.

Required Courses (27 hours)
CPS 181 - Introduction to Data Structures 3(3-0)
CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
CPS 480 - Introduction to Artificial Intelligence 3(3-0)
PHL 140 - Introduction to Logic 3(3-0)
PHL 320 - Theory of Knowledge 3(3-0)
PHL 325 - Philosophy of Mind 3(3-0)
PSY 100 - Introduction to Psychology 3(3-0)
PSY 382 - Perception 3(3-0)
PSY 589 - Cognitive Psychology 3(3-0)

(continued)
Other Requirements (up to 20 hours)

Note: Some corequisite and prerequisite courses may be waived if you have adequate background.

CPS 180 - Principles of Computer Programming 3(3-0)
CPS 210 - Assembly Language and Computer Organization 3(3-0)
MTH 130 - Pre-Calculus Mathematics 4(4-0)
MTH 132 - Calculus I 4(4-0)
MTH 175 - Discrete Mathematics 3(3-0)
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)

Electives (12 hours)

CPS 450 - Programming Language Concepts 3(3-0)
CPS 542 - Analysis and Design of Algorithms 3(3-0)
CPS 576 - Digital Image Processing 3(3-0)
PHL 100 - Introduction to Philosophy 3(3-0)
PHL 190 - The Nature of Science 3(3-0)
PHL 302 - History of Philosophy: Modern Period 3(3-0)
PHL 340 - Intermediate Logic 3(3-0)
PHL 390 - Philosophy of Science 3(3-0)
PHL 421 - Philosophy of Language 3(3-0)
PSY 211 - Introduction to Psychological Statistics 3(3-0)
PSY 330 - Social Psychology 3(3-0)
PSY 383 - Learning and Memory 3(3-0)
PSY 387 - Behavioral Neuroscience 3(3-0)
PSY 583 - Motivation and Emotion 3(3-0)
PSY 587 - Physiological Psychology 3(3-0)

Total: 39-59 semester hours (up to 20 co- and prerequisite hours)

Interdisciplinary

Earth Science Major

B.A.; B.S. degrees

Advisors: Becker, Francek, Matty, Morgan

Required Courses I (4 hours)

GEO 101 - Physical Geology 3(3-0)
GEO/GEL 205 - Oceanography 3(3-0)

Required Courses II (7 hours)

Select one of the following:
MET 201 - Weather 4(4-0)
MET 240 - Meteorology 3(2-2)

Electives (26 hours)

Select any ESC, GEL or AST course, or from the following:
BIO 101 - General Biology 3(2-2)
BIO 105 - Introductory Quantitative Biology 3(2-2)
BIO 203 - General Botany 3(2-3)
BIO 218 - General Zoology 3(2-3)
BIO 229 - Natural History 3(2-3)
BIO 240 - Conservation of Natural Resources 3(3-0)
BIO 340 - Ecology 3(2-3)
CHM 111 - The Interaction of Chemistry and Society 3(3-0)
CHM 120 - Survey of Chemistry 3(0)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
GEL 102 - Physical Geology Laboratory 1(0-2)
GEO 203 - Introduction to Geographic Information Science 3(2-2)
GEO 210 - Landforms 3(2-2)
GEO 303 - Geographic Information Systems - I 3(2-2)
GEO 305 - Remote Sensing of the Environment 3(2-2)
GEO 330 - Resource Perception and Utilization 3(3-0)
GEO 500 - Advanced Cartography 3(2-2)
GEO 506 - Applications in Remote Sensing of the Environment 3(2-2)
GEO 530 - Land Use Planning 3(3-0)
PHY 130 - College Physics I 4(4-0)
PHY 131 - College Physics II 4(4-0)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)

Total: 35-36 semester hours

Note: At least 15 hours of the major should be at the 300 level or above.

Interdisciplinary

Earth Science Minor

B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Advisors: Becker, Francek, Matty, Morgan

Required Courses I (4 hours)

Select one of the following:
MET 201 - Weather 4(4-0)
MET 240 - Meteorology 3(2-2)

Required Courses II (7 hours)

Select one of the following:
GEO 101 - Physical Geology 3(2-2)
GEO/GEL 205 - Oceanography 3(3-0)
GEO 210 - Landforms 3(2-2)

Required Courses III (3 hours)

Select one of the following:
GEL 101 - Physical Geology 3(3-0)
GEL 301 - Geology and Michigan 3(3-0)

Electives (10 hours)

Selected in consultation with the minor advisor.

Total: 24 semester hours
This major is administered by the Interdisciplinary Science Education Council. Students are cautioned that they must have 36 semester hours on their Earth Science major that are not counted on any other major or minor for teaching certification. The following requirements are pending state approval and may change. See your advisor.

**Required Courses I (27 hours)**

- AST 111 - Astronomy 3(3-0)
- AST 112 - Introduction to Astronomical Observations 1(0-2)
- GEL 201 - Earth History 3(2-2)
- GEL 290 - Introduction to Geologic Investigation 3(2-2)
- GEL 320 - Earth Materials 3(2-3)
- GEL 325 - Glacial Morphology and Landforms 3(3-0)
- GEO/GEL 205 - Oceanography 3(3-0)
- MET 201 - Weather 4(4-0)
- MET 301 - Climatology and Climatic Change 3(3-0)
- SCI 490 - Contemporary Issues in Earth Science 1(1-0)

**Required Courses II (3 hours)**

Select one of the following:

- ESC 400 - Earth Science Education 3(2-2)
- SCI 400 - Teaching Integrated Science in Secondary School 3(2-2)

**Required Courses III (3 hours)**

Select one of the following:

- GEL 100 - Introduction to Earth Systems 3(2-2)
- GEL 130 - Earth Processes 3(2-2)

**Required Courses IV (3 hours)**

Select one of the following:

- GEL 413 - Geomorphology 3(3-0)
- GEO 210 - Landforms 3(2-2)

**Required Courses V (3 hours)**

Select one of the following:

- GEO 330 - Resource Perception and Utilization 3(3-0)
- GEL 304 - Earth Resources 3(3-0)
- GEO 330 - Resource Perception and Utilization 3(3-0)

**Other Requirements I (10 hours)**

- CHM 120 - Survey of Chemistry 4(4-0)
- CHM 127 - Introductory Chemistry Laboratory 1(0-2)
- PHY 130 - College Physics I 4(4-0)
- PHY 170 - College Physics Laboratory I 1(0-2)

**Other Requirements II (0-6 hours)**

Select one of the following options in consultation with an advisor:

- Option A (6 hours)
  - MTH 106 - Plane Trigonometry 3(3-0)
  - MTH 107 - College Algebra 3(3-0)
- Option B (0 hours)
  - Mathematics placement equivalent to precalculus (MTH 130) or above.

Total: 49-55 semester hours

(39 hours of required Earth Science courses)

**Interdisciplinary Earth Science Minor**

B.S. in Ed. degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

**Advisors:** Mark Francek, Wayne Kiefer, David Matty, Sven Morgan

This minor offers a balanced interdisciplinary program of coursework in the earth and space sciences for students planning to teach middle and high school earth science. The required courses have been selected to prepare students to teach the earth and space science content in the Michigan Curriculum Framework including strong preparation in science inquiry through laboratory and field methods experiences. Students are encouraged to work closely with an advisor throughout their program. Courses, where appropriate, may be double counted with the University Program and the degree requirements on the Bachelor of Science in Education.

**Admission Requirements; Retention & Termination Standards**

All courses must be taken for a grade, not for credit/no credit even if offered as an option. Grades in courses transferred to CMU will count in the calculation of the major GPA. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

In addition to the courses listed below, each student must receive training in safe chemical use and storage and the care of living things from trained personnel prior to applying for student teaching. Students should check the integrated science website for the training schedule. There is no enrollment charge to the students for the training and no credit hours earned. The training is generally offered once during the Fall semester and twice during the Spring semester. The Interdisciplinary Science Education Council oversees these training workshops.

This minor is administered by the Interdisciplinary Science Education Council. Students are cautioned that they must have 24 semester hours on their Earth Science minor that are not counted on any other major or minor for teaching certification.

The following requirements are pending state approval and may change. See your advisor.

**Required Courses I (16 hours)**

- AST 111 - Astronomy 3(3-0)
- GEL 201 - Earth History 3(2-2)
- GEL 320 - Earth Materials 3(2-3)
- GEO/GEL 205 - Oceanography 3(3-0)
- MET 201 - Weather 4(4-0)

**Required Courses II (3 hours)**

Select one of the following:

- ESC 400 - Earth Science Education 3(2-2)
- SCI 400 - Teaching Integrated Science in Secondary School 3(2-2)

**Required Courses III (3 hours)**

Select one of the following:

- GEL 100 - Introduction to Earth Systems 3(2-2)
- GEL 130 - Earth Processes 3(2-2)

**Required Courses IV (3 hours)**

Select one of the following:

- GEL 413 - Geomorphology 3(3-0)
- GEO 210 - Landforms 3(2-2)

**Required Courses V (3 hours)**

Select one of the following:

- GEO 330 - Resource Perception and Utilization 3(3-0)
- GEL 304 - Earth Resources 3(3-0)
- GEO 330 - Resource Perception and Utilization 3(3-0)

**Total: 28 semester hours**

**Interdisciplinary Entrepreneurship Major**

B.A.A. degree

**Advisor:** James Damitio (ABSC 168, 774-3699)

This major is listed in the College of Business Administration section. See the index for the - number.
Interdisciplinary Majors and Minors

Interdisciplinary Entrepreneurship Minor
Advisor: James Damitio (ABSC 168, 774-3699)
This major is listed in the College of Business Administration section. See the index for the page number.

Interdisciplinary Environmental Studies Major
B.A.; B.S. degrees
Environmental Studies is an interdisciplinary major that focuses on the complex relationship between humans and the environment. This program is designed to satisfy the needs of students who desire to work in fields that are explicitly related to the environment as well as to provide valuable information to students who simply care about environmental issues. The Environmental Studies major requires a second major taken in another discipline.

For additional information, please contact Tom Rohrer, Director, 774-4409, 318 Brooks Hall, tom.rohrer@cmich.edu; http://www.cst.cmich.edu/units/env/.

All Environmental Studies majors must:
1. complete the Environmental Studies common core outlined below,
2. complete a six (6) week, full-time, Internship Program (240 hours);
3. earn a minimum cumulative grade point average of 2.7.
4. elect and complete a concentration from the two outlined below.
5. Complete a second major in an allied field (see advisor).

Core Courses I (16 hours)
BIO 340 - Ecology 3(2-3)
BLR 521 - Environmental Law and Policy 3(3-0)
ECO 301 - Environmental Economics 3(3-0)
ENV 101 - Introduction to Environmental Studies 3(3-0)
ENV 400 - Environmental Studies Colloquium 1(1-0)
PSC 261 - State and Local Government 3(3-0)

Core Courses II (3 hours)
Select one of the following:
BIO 240 - Conservation of Natural Resources 3(3-0)
GEO 330 - Resource Perception and Utilization 3(3-0)

Core Courses III (3 hours)
Select one of the following:
GEL 100 - Introduction to Earth Systems 3(2-2)
GEL 101 - Physical Geology 3(3-0)
GEL 105 - Dangerous Planet 3(3-0)
GEL 130 - Earth Processes 3(2-2)

Select one of the following concentrations:

Environmental Science Concentration
Required Courses I (9 hours)
BIO 208 - Microbiology 3(2-3)
BIO/GEO 334 - Soil Science 3(2-2)
GEL 380 - Hydrogeology 3(2-3)

Required Courses II (5-8 hours)
Select one of the following options:

Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)

Required Courses III (8 hours)
Select one of the following options:

Option A (8 hours)
PHY 130 - College Physics I 4(4-0)
PHY 131 - College Physics II 4(4-0)

Option B (8 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)

Electives I (6 hours)
Select electives in consultation with advisor.
BIO 365 - Environmental Contaminants 3(3-0)
BIO 526 - Limnology 3(3-0)
BIO 527 - Limnological Methods 2(0-4)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 513 - Chemistry of Natural Waters 3(Spec)
GEL 372 - Introduction to Geophysics 3(2-3)
GEL 402 - Environmental Geochemistry 3(3-0)
GEO 203 - Introduction to Geographic Information Science 3(2-2)
GEO 305 - Remote Sensing of the Environment 3(2-2)
GEO 503 - Geographic Information Systems 3(2-2)
GEO 506 - Applications in Remote Sensing of the Environment 3(2-2)
GEO 508 - Digital Remote Sensing 3(2-2)
MET 201 - Weather 4(4-0)
MET 240 - Meteorology 3(2-2)

Note: You cannot take both MET 201 and MET 240.

Electives II (6 hours)
Select electives in consultation with advisor.
ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
ANT/SOC 370 - Global Environmental Issues 3(3-0)
BLR 410 - Regulatory Law 3(3-0)
ENV 310 - Environmental Issues Management 3(3-0)
HSC 352 - Environmental Health 3(3-0)
HST 322 - Westward Movement in America 3(3-0)
IET 327 - Industrial Safety 3(3-0)
IET 525 - Hazardous Materials Technology 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 151 - Marketing and Society 3(3-0)
PHL 118 - Moral Problems 3(3-0)
PSC 514 - American Public Policy Making 3(3-0)
PSC 516 - Environmental Politics and Policy 3(3-0)
PSY 387 - Behavioral Neuroscience 3(3-0)
PSY 537 - Organizational Behavior Management 3(3-0)
PSY 583 - Motivation and Emotion 3(3-0)
REL 235 - Religion and Social Issues 3(3-0)

Note: You may take only one of the following: PSY 387, PSY 537 or PSY 583

Total: 56-59 semester hours

Environmental Policy Concentration

Required Courses I (15 hours)
Select 15 hours from:
BIO/GEO 334 - Soil Science 3(2-2)
IET 327 - Industrial Safety 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 151 - Marketing and Society 3(3-0)
PSC 514 - American Public Policy Making 3(3-0)
PSC 516 - Environmental Policy and Politics 3(3-0)

Note: You cannot take both PSC 514 and PSC 516.
Required Courses II (4-5 hours)
Select one of the following options:

Option A (5 hours)
CHM 120 - Survey of Chemistry 4(4-0)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)

Option B (4 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)

Required Courses III (3 hours)
Select one of the following:
BLR 410 - Regulatory Law 3(3-0)
PSC 522 - Regulatory Processes and Administrative Law 3(3-0)

Electives I (6 hours)
BIO 365 - Environmental Contaminants 3(3-0)
CHM 342 - Survey of Organic Chemistry 4(3-3)
CHM 513 - Chemistry of Natural Waters 3(Spec)
GEL 372 - Introduction to Geophysics 3(2-3)
GEL 380 - Hydrogeology 3(2-3)
GEO 402 - Environmental Geochemistry 3(3-0)
GEO 203 - Introduction to Geographic Information Science 3(2-2)
GEO 305 - Remote Sensing of the Environment 3(2-2)
GEO 503 - Geographic Information Systems 3(2-2)
GEO 506 - Applications in Remote Sensing of the Environment 3(2-2)
GEO 508 - Digital Remote Sensing 3(2-2)
MET 201 - Weather 4(4-0)
MET 240 - Meteorology 3(2-2)
PHY 130 - College Physics I 4(3-3)
PHY 131 - College Physics II 4(3-3)

Note: You cannot take both MET 201 and MET 240.

Electives II (6 hours)
ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
ANT 370 - Global Environmental Issues 3(3-0)
ENV 310 - Environmental Issues Management 3(3-0)
HEV 332 - Human Shelter and Environment 3(3-0)
HSC 352 - Environmental Health 3(3-0)
HST 322 - Westward Movement in America 3(3-0)
IET 525 - Hazardous Materials Technology 3(3-0)
PHL 118 - Moral Problems 3(3-0)
PSC 105 - Introduction to American Government and Politics 3(3-0)
PSY 387 - Behavioral Neuroscience 3(3-0)
PSY 583 - Motivation and Emotion 3(3-0)
REL 235 - Religion and Social Issues 3(3-0)

Total: 56-57 semester hours

Interdisciplinary

Environmental Studies Minor
B.A.A. / B.S. in B.A. degrees

This minor, available to students on the B.A.A. degree and B.S. in B.A. degree, offers an interdisciplinary program in environmental studies for students earning degrees where completing a second major would not be feasible.

For additional information, please contact Tom Rohrer, Director, 774-4409, 318 Brooks Hall, tom.rohrer@cmich.edu; http://www.cst.cmich.edu/units/env/.

Required Courses I (3 hours)
Select one of the following:
BIO 240 - Conservation of Natural Resources 3(3-0)
GEO 330 - Resource Perception and Utilization 3(3-0)

Required Courses II (9 hours)
BIO 340 - Ecology 3(2-3)
ENV 101 - Introduction to Environmental Studies 3(3-0)
PSC 261 - State and Local Government 3(3-0)

Required Courses III (3 hours)
Select one of the following:
BLR 521 - Environmental Law and Policy 3(3-0)
ECO 301 - Environmental Economics 3(3-0)

Required Courses IV (4-8 hours)
Select one of the following options:

Option A (4 hours)
CHM 120 - Survey of Chemistry 4(4-0)

Option B (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Electives (6-7 hours)
Select hours from the following:
ANT/SOC 370 - Global Environmental Issues 3(3-0)
BIO/GEO 334 - Soil Science 3(2-2)
CHM 342 - Survey of Organic Chemistry 4(3-3)
ENV 310 - Environmental Issues Management 3(3-0)
GEL 100 - Introduction to Earth Systems 3(2-2)
GEL 101 - Physical Geology 3(3-0)
GEL 105 - Dangerous Planet 3(3-0)
GEL 130 - Earth Processes 3(2-2)
HSC 352 - Environmental Health 3(3-0)
MET 201 - Weather 4(4-0)
MET 240 - Meteorology 3(2-2)
PSC 210 - Introduction to Public Administration 3(3-0)
PSC 514 - American Public Policy Making 3(3-0)

Notes: You cannot take both MET 201 AND MET 240.
You cannot take more than one of GEL 100, 101, 105 or 130.
Other electives may be allowed with the consent of the advisor.

Total: 25-30 semester hours (plus 0-6 hours of prerequisites, depending on the electives chosen)

Interdisciplinary

European Studies Major
B.A. / B.S. degrees

Description of the Program
The European Studies Major offers an interdisciplinary program of coursework for students planning graduate study in the various disciplines of the social sciences and humanities, or preparing for careers in foreign service, government or consulting, that require a combination of proficiency in European area and language studies. The overall course requirement is 36 hours in addition to the language requirement. For information, contact Brigitte Bechtold, 137 Anspach Hall, 774-3424.

Language Requirement
European Studies majors are required to attain basic proficiency in at least one modern European language. Basic proficiency can be demonstrated in a number of ways:

1. Successful completion (grade of C+ or better in each course) of six semester hours in a European language at the 300 level or equivalent (e.g., transfer credit) in the Department of Foreign Languages, Literatures and Cultures (FLLC). Three of these six hours must be in a course dealing primarily with the literature, culture or civilization of Europe.

2. Successful completion of 202 or equivalent in French, German, Russian or Spanish, and successful completion of a summer or semester of study abroad in the target language.*

(continued)
3. Because in many cases competency in two foreign languages is desirable, the language requirement may be met by successful completion of 202 or equivalent in two modern European languages. Successful completion of two semesters of language study abroad will also fulfill the requirement, provided that a different language is studied each semester.*

If unusual circumstances warrant, a student may request an alternative route to meet the requirement, which must be approved by the student's advisor and the Chairperson of the FLLC Department.

*Evaluation criteria for study abroad credit include factors such as the intensity of cultural contact and the duration of the program. The study abroad experience need not be limited to language instruction programs. The student's advisor, in conjunction with the FLLC Department, will determine the applicability of the study abroad experience toward fulfillment of the language requirement.

**Required Courses (15 hours)**

- EUR 301/GEO 365 - Europe 3(3-0)
- EUR 302/HST 356 - Europe Since 1945 3(3-0)
- EUR 303/PSC 341 - Comparative Politics: Eastern Europe 3(3-0)
- EUR 304 - The European Economy 3(3-0)
- EUR 496 - European Studies Capstone Seminar 3(3-0)

**Electives I (15 hours)**

Select 15 hours, using 3 different designators. At least 24 of the total number of hours in the required and elective courses must be at the 300 level or above.

- ECO 280 - Economies of the World 3(3-0)
- ECO 320 - European and Asian Economic History 3(3-0)
- ECO 380 - Comparative Economic Systems 3(3-0)
- HST 280 - Nazi Germany and the Holocaust 3(3-0)
- HST 340 - The High Middle Ages 3(3-0)
- HST 347 - The French Revolution and Napoleonic Period 3(3-0)
- HST 348 - Russia through the Reign of Catherine the Great 3(3-0)
- HST 349 - Russia in the Nineteenth and Twentieth Centuries 3(3-0)

**Required Courses II (6 hours)**

- EUR 301/GEO 365 - Europe 3(3-0)
- EUR 302/HST 356 - Europe Since 1945 3(3-0)
- EUR 496 - European Studies Capstone Seminar 3(3-0)

**Required Courses II (6 hours)**

Select two of the following:

- EUR 303/PSC 341 - Comparative Politics: Eastern Europe 3(3-0)
- EUR 304 - The European Economy 3(3-0)
- PSC 347 - Comparative Politics: Western Europe 3(3-0)

**Electives (9 hours)**

The elective requirement may be satisfied by either:

1. 9 hours of electives from the following list, of which at least 3 need to be at the 300 level or above.

2. A minor in or a major in a European language (French, German, or Spanish).

**Electives II (6 hours)**

Select hours, using 2 different designators.

- ART 185 - Introduction to Western Art, Part I 3(3-0)
- ART 285 - Introduction to Western Art, Part II 3(3-0)
- ART 481 - Western Medieval Art 3(3-0)
- ART 483 - Nineteenth Century European Painting 3(3-0)
- ART 586 - Seminar in Art History 3(3-0)
- ENG 262 - Masterpieces of European Literature 3(3-0)
- ENG 330 - Mythological Backgrounds of Western Literature 3(3-0)
- ENG 561 - European Romanticism: A Comparative Approach 3(3-0)
- HST 101 - The Development of Western Civilization 3(3-0)
- HST 102 - The Development of Western Civilization 3(3-0)
- HST 200 - The Medieval Civilization 3(3-0)
- HST 238 - Ancient Greece and Rome 3(3-0)
- HST 341 - Renaissance and Reformation 3(3-0)

**European Studies Minor**

**Interdisciplinary**

*By B.A.; B.S.; B.A.A.; B.S. in B.A. degrees*

The European Studies Minor is an interdisciplinary minor designed for students intending to pursue graduate study in a discipline of the social sciences or the humanities, or preparing for professional careers in foreign service, government or consulting, which require a combination of proficiency in European area and language studies.

The minor is well suited as a complement to majors in Foreign Languages, Literatures and Cultures, History, Political Science, Geography, Sociology, Journalism and others. The overall course requirement is 21 hours, of which 12 hours are required and 9 are elective. Study abroad can be used to fulfill part of the requirements.

For more information, contact Brigitte Bechtold, 137 Anspach Hall, 774- 3424.

**Required Courses I (6 hours)**

- EUR 303/PSC 341 - Comparative Politics: Eastern Europe 3(3-0)
- EUR 304 - The European Economy 3(3-0)
- PSC 347 - Comparative Politics: Western Europe 3(3-0)

**Required Courses II (6 hours)**

Select two of the following:

- EUR 301/GEO 365 - Europe 3(3-0)
- EUR 302/HST 356 - Europe Since 1945 3(3-0)
- EUR 496 - European Studies Capstone Seminar 3(3-0)

**Electives (9 hours)**

The elective requirement may be satisfied by either:

1. 9 hours of electives from the following list, of which at least 3 need to be at the 300 level or above.

2. A minor in or a major in a European language (French, German, or Spanish).

- ART 185 - Introduction to Western Art, Part I 3(3-0)
- ART 285 - Introduction to Western Art, Part II 3(3-0)
- ART 481 - Western Medieval Art 3(3-0)
- ART 483 - Nineteenth Century European Painting 3(3-0)
- ART 586 - Seminar in Art History 3(3-0)
- ECO 280 - Economies of the World 3(3-0)
- ECO 302/HST 356 - Europe Since 1945 3(3-0)
- ECO 380 - Comparative Economic Systems 3(3-0)
- ENG 262 - Masterpieces of European Literature 3(3-0)
- ENG 330 - Mythological Backgrounds of Western Literature 3(3-0)
- ENG 561 - European Romanticism: A Comparative Approach 3(3-0)
- HST 101 - The Development of Western Civilization 3(3-0)
- HST 102 - The Development of Western Civilization 3(3-0)
- HST 200 - The Medieval Civilization 3(3-0)
- HST 238 - Ancient Greece and Rome 3(3-0)
- HST 341 - Renaissance and Reformation 3(3-0)
Interdisciplinary Majors and Minors

PHL 307 - Existentialism: From Kierkegaard to Sartre 3(3-0)
PHL 404 - History of Philosophy: Contemporary Period 3(3-0)
PSC 150 - World Politics 3(3-0)
PSC 242 - Introduction to Comparative Politics 3(3-0)
PSC 275 - Great Political Thinkers 3(3-0)
PSC 347 - Comparative Politics: Western Europe 3(3-0)
PSC 351 - International Relations 3(3-0)
PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)
PSC 515 - Comparative Public Policy 3(3-0)
PSC 551 - Seminar in International Relations 3(3-0)
PSC 555 - International Law I 3(3-0)
REL 313 - Christianity 3(3-0)
SOC 301 - Sociological Theory 3(3-0)
SOC 310 - Life in Russia Today 3(3-0)

Total: 21 semester hours

Interdisciplinary

Gerontology Minor
B.A.; B.A.A.; B.S.; B.A. in B.S. degrees

Gerontology is the holistic study of aging. It is a useful complement to numerous majors including those preparing students for work in human service settings, recreation and leisure, marketing, policy and planning, and in the design of environments, products, and attire. Students seeking applied settings are encouraged to intern or work in aging services to enhance their courses. To prepare for graduate studies, students are encouraged to participate in research with older adults. This minor has 12 required hours and 12 hours of electives, which allow the student to fit special interests and needs. Advisors for this minor are located in Human Environmental Studies.

Required Courses (9 hours)
GRN 247 - Introduction to Gerontology 3(3-0)
HSC 390 - Health and Aging 3(3-0)
PSY 325 - Psychology of Aging 3(3-0)

Other Requirement (3 hours)
Select one of the following:
HEV 418 - Family Development in Late Life 3(3-0)
SOC 320 - Sociology of Aging and Retirement 3(3-0)

Electives (12 hours)
Select hours from the following:
CDO 544 - Communication Disorders in the Aged 3(3-0)
GRN 248 - Service Learning in Gerontology 3(Spec)
GRN/WST 430 - Women and Aging 3(3-0)
GRN 535 - Dementia Care: Diagnosis, Treatment and Prevention 3(3-0)
GRN/HEV 575 - Geriatric Nutrition 3(3-0)
GRN 590 - Independent Study 1-4(Spec)
GRN 597 - Special Topics 1-4(Spec)
HSC 517 - Drugs and the Elderly 2(2-0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)
RPL 345 - Therapeutic Recreation: Gerontology 3(3-0)
RPL 346 - Recreation for Senior Citizens 3(3-0)

Other courses as approved by program advisor.

Note: You may select either HSC 519 or REL 334, not both.

Total: 24 semester hours

Interdisciplinary

Humanities Minor
B.A.; B.A.A.; B.S.; B.A. in B.S. degrees

A minor in the Humanities is designed for students who are interested in making connections rather than in specialization and may be an excellent addition to the specialized study of their major. This minor can also be used to prepare for graduate programs that are interdisciplinary in the humanities and liberal arts.

The interdepartmental minor in the Humanities concentrates on integrating studies of the world’s literary and cultural heritage within the context of social, economic, scientific, and political forces that have affected mankind in different ways from the past to the present. For further information contact Professor Ronald Primeau, Department of English.

Course work must be selected with approval of advisor as follows:

Required Courses I (6 hours)
Comparative Literature
ENG 261 - Masterpieces of Ancient Literature 3(3-0)
ENG 262 - Masterpieces of European Literature 3(3-0)

Required Courses II (12 hours)
The Traditional Humanities
Each course must be taken from a different discipline.
ART 185 - Introduction to Western Art, Part I 3(3-0)
ART 285 - Introduction to Western Art, Part II 3(3-0)
ART 384 - Arts of Non-European Traditions 3(3-0)
ENG 330 - Mythological Backgrounds of Western Literature 3(3-0)
ENG 332 - Contemporary Literature and Thought 3(3-0)
ENG 365 - The Bible as Literature 3(3-0)
FRN 320 - French Civilization 3(3-0)
GER 341 - German Cultural History I 3(3-0)
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)
HST 238 - Ancient Greece and Rome 3(3-0)
MUS 313 - Musics of the World 3(3-0)
PHL 200 - History of Philosophy: Classical Period 3(3-0)
PHL 302 - History of Philosophy: Modern Period 3(3-0)
PHL 390 - Philosophy of Science 3(3-0)
PHL 422 - Political and Social Philosophy 3(3-0)
REL 222 - Religious Traditions of India 3(3-0)
REL 301 - Myth and Meaning 3(3-0)
REL 320 - The Buddhist Tradition 3(3-0)
SPN 376 - Culture and Civilization of Spain 3(3-0)
SPN 377 - Culture and Civilization of Latin America 3(3-0)
TAI 574 - History of Drama and Theatre I 3(3-0)
TAI 575 - History of Drama and Theatre II 3(3-0)

Required Courses III (3 hours)
Modern Human Problems
ANT 170 - Cultural Anthropology 3(3-0)
BIO 338 - Human Ecology 3(3-0)
CHM 111 - The Interaction of Chemistry and Society 3(3-0)
GEO 121 - Cultures of the World 3(3-0)
GEO 340 - Urban Geography 3(3-0)
PSC 151 - The U.S. and the World 3(3-0)
PSC 540 - Cultural Heritage and Politics of Eastern Europe 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)

Required Courses IV (3 hours)
Integrative Studies
The following courses may be grouped under Electives I and II, but they are distinct from the others listed in that they represent multi-disciplinary approaches to the subjects and are taught in an integrative way. They are selected from Group IVA of the University Program.

(continued)
Required Courses I (19 hours)

AST 111 - Astronomy 3(3-0)
BIO 151 - Human Biology 3(3-0)
BIO 229 - Nature Study 3(2-3)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)
PHS 151 - Introductory Physical Science I 3(2-2)
PHS 251 - Introductory Physical Science II 3(2-2)

Plus an additional 3 credit BIO course at the 200-level or higher selected in consultation with an advisor.

Required Courses II (3 hours)

Select one of the following:
BIO 101 - General Biology 3(2-2)
BIO 105 - Introductory Quantitative Biology 3(2-2)

Required Courses III (3 hours)

Select one of the following:
GEL 100 - Introduction to Earth Systems 3(2-2)
GEL 130 - Earth Processes 3(2-2)

Required Courses IV (3 hours)

Select one of the following:
GEL 201 - Earth History 3(2-2)
GEL 230 - Prehistoric Life 3(3-0)

Required Courses V (3-4 hours)

Select one of the following:
CHM 111 - The Interaction of Chemistry and Society 3(3-0)
CHM 120 - Survey of Chemistry 4(4-0)

Note: CHM 111 is recommended.

Required Courses VI (3-4 hours)

Select one of the following:
GEO 105 - Physical Geography 3(2-2)
MET 201 - Weather 4(4-0)

Required Courses VII (3 hours)

Select one of the following:
BIO 351 - Biological Science for Elementary Teachers 3(Spec)
ESC 400 - Earth Science Education 3(2-2)
PHS 351 - Physical Science for the Elementary Grades 3(2-2)
PHS 452 - Physical Science for the Middle Grades 3(2-2)

Total: 37-39 semester hours

Interdisciplinary Integrated Science Minor

B.S. in Ed., Elementary Provisional Certification with Emotional or Cognitive Impairment Endorsement

Advisors: Anton Jenson (CHM), Stanley Hirschi (PHY), David Matty (GEL), Mark Francsek (GEO), Claudia Douglass (BIO), Glenn Williams (PHY).

This minor offers a balanced, interdisciplinary program of coursework in the life, physical, and earth and space sciences for students planning to teach elementary or middle school. The required courses have been selected to prepare students to teach the science content in the Michigan Curriculum Framework including strong preparation in science inquiry through laboratory and field methods experiences. Students are encouraged to work closely with an advisor throughout their program. Courses, where appropriate, may be double counted with the University Program and the degree requirements on the Bachelor of Science in Education.

Admission Requirements, Retention & Termination Standards

Students are cautioned that they must have 24 semester hours on their Integrated Science minor that are not counted on any other major or minor for teacher certification. All courses must be taken for a grade, not for credit/no credit even if offered as an option. Grades in courses transferred to CMU will count in the calculation of the minor GPA. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

In addition to the courses listed below, each student must receive training in safe chemical use and storage and care of living things from trained personnel prior to applying for student teaching. Students should check the integrated science website for the training workshop schedule. There is no enrollment charge to receive training in safe chemical use and storage and care of living things from trained personnel prior to applying for student teaching. The training is generally offered once during the Fall semester and twice during the Spring semester. The Interdisciplinary Science Education Council oversees these training workshops.

This major is administered by the Integrated Science Education Council.

The requirements are pending state approval and may change. See your advisor.

Required Courses I (19 hours)

AST 111 - Astronomy 3(3-0)
BIO 101 - General Biology 3(2-2)
BIO 105 - Introductory Quantitative Biology 3(2-2)

Required Courses II (11 hours)

Select one of the following:
GEO 105 - Physical Geography 3(2-2)
MET 201 - Weather 4(4-0)

Required Courses III (3 hours)

Select one of the following:
BIO 351 - Biological Science for Elementary Teachers 3(Spec)
ESC 400 - Earth Science Education 3(2-2)
PHS 351 - Physical Science for the Elementary Grades 3(2-2)
PHS 452 - Physical Science for the Middle Grades 3(2-2)

Total: 37-39 semester hours

Interdisciplinary Integrated Science Minor

B.S. in Ed. degree, Provisional Elementary Certification

Advisors: Anton Jenson (CHM), Stanley Hirschi (PHY), David Matty (GEL), Mark Francsek (GEO), Claudia Douglass (BIO), Glenn Williams (PHY).

This major offers a balanced, interdisciplinary program of coursework in the life, physical, and earth and space sciences for students planning to teach elementary or middle school. The required courses have been selected to prepare students to teach the science content in the Michigan Curriculum Framework including strong preparation in science inquiry through laboratory and field methods experiences. Students are encouraged to work closely with an advisor throughout their program. Courses, where appropriate, may be double counted with the University Program and the degree requirements on the Bachelor of Science in Education.

Admission Requirements, Retention & Termination Standards

Students are cautioned that they must have 24 semester hours on their Integrated Science minor that are not counted on any other major or minor for teacher certification. All courses must be taken for a grade, not for credit/no credit even if offered as an option. Grades in courses transferred to CMU will count in the calculation of the minor GPA. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

In addition to the courses listed below, each student must receive training in safe chemical use and storage and care of living things from trained personnel prior to applying for student teaching. Students should check the integrated science website for the training workshop schedule. There is no enrollment charge to receive training in safe chemical use and storage and care of living things from trained personnel prior to applying for student teaching. The training is generally offered once during the Fall semester and twice during the Spring semester. The Interdisciplinary Science Education Council oversees these training workshops.

This major is administered by the Integrated Science Education Council.

The requirements are pending state approval and may change. See your advisor.

Required Courses I (3 hours)

Select one of the following:
BIO 101 - General Biology 3(2-2)
BIO 105 - Introductory Quantitative Biology 3(2-2)

Required Courses II (11 hours)

Select one of the following:
AST 111 - Astronomy 3(3-0)
BIO 101 - General Biology 3(2-2)
BIO 105 - Introductory Quantitative Biology 3(2-2)

Required Courses III (3 hours)

Select one of the following:
GEL 100 - Introduction to Earth Systems 3(2-2)
GEL 130 - Earth Processes 3(2-2)

Required Courses IV (3 hours)

Select one of the following:
GEL 201 - Earth History 3(2-2)
GEL 230 - Prehistoric Life 3(3-0)

Required Courses V (3-4 hours)

Select one of the following:
CHM 111 - The Interaction of Chemistry and Society 3(3-0)
CHM 120 - Survey of Chemistry 4(4-0)

Note: CHM 111 is recommended.

Required Courses VI (3-4 hours)

Select one of the following:
GEO 105 - Physical Geography 3(2-2)
MET 201 - Weather 4(4-0)

Required Courses VII (3 hours)

Select one of the following:
BIO 351 - Biological Science for Elementary Teachers 3(Spec)
ESC 400 - Earth Science Education 3(2-2)
PHS 351 - Physical Science for the Elementary Grades 3(2-2)
PHS 452 - Physical Science for the Middle Grades 3(2-2)

Total: 37-39 semester hours

Interdisciplinary Integrated Science Minor

B.S. in Ed., Elementary Provisional Certification or B.S. in Ed., Elementary Provisional Certification with Emotional or Cognitive Impairment Endorsement

Advisors: Anton Jenson (CHM), Stanley Hirschi (PHY), David Matty (GEL), Mark Francsek (GEO), Claudia Douglass (BIO), Glenn Williams (PHY).

This minor offers a balanced, interdisciplinary program of coursework in the life, physical, and earth and space sciences for students planning to teach elementary school. The required courses have been selected to prepare students to teach the science content in the Michigan Curriculum Framework including strong preparation in science inquiry through laboratory and field methods experiences. Students are encouraged to work closely with an advisor throughout their program. Courses, where appropriate, may be double counted with the University Program and the degree requirements on the Bachelor of Science in Education.

Admission Requirements, Retention & Termination Standards

Students are cautioned that they must have 24 semester hours on their Integrated Science minor that are not counted on any other major or minor for teacher certification. All courses must be taken for a grade, not for credit/no credit even if offered as an option. Grades in courses transferred to CMU will count in the calculation of the minor GPA. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

In addition to the courses listed below, each student must receive training in safe chemical use and storage and care of living things from trained personnel prior to applying for student teaching. Students should check the integrated science website for the training workshop schedule. There is no enrollment charge to receive training in safe chemical use and storage and care of living things from trained personnel prior to applying for student teaching. The training is generally offered once during the Fall semester and twice during the Spring semester. The Interdisciplinary Science Education Council oversees these training workshops.

This minor is administered by the Integrated Science Education Council.

The following requirements are pending state approval and may change. See your advisor.

Required Courses I (3 hours)

Select one of the following:
BIO 101 - General Biology 3(2-2)
BIO 105 - Introductory Quantitative Biology 3(2-2)
Required Courses III (3 hours)
Select one of the following:
- GEL 100 - Introduction to Earth Systems 3(2-2)
- GEL 130 - Earth Processes 3(2-2)

Note: GEL 130 is recommended.

Required Courses IV (3 hours)
Select one of the following:
- GEL 201 - Earth History 3(2-2)
- GEL 230 - Prehistoric Life 3(3-0)

Required Courses V (3-4 hours)
Select one of the following:
- CHM 111 - The Interaction of Chemistry and Society 3(3-0)
- CHM 120 - Survey of Chemistry 4(4-0)
- CHM 111 is recommended.

Required Courses VI (3-4 hours)
Select one of the following:
- GEO 105 - Physical Geography 3(2-2)
- MET 201 - Weather 4(4-0)

Electives (3 hours)
An additional 3 credit BIO course at the 200-level or higher selected in consultation with an advisor, excluding BIO 351 or BIO 508.

Total: 29-31 Semester Hours

Integrated Science Major
B.S. in Ed., Secondary Provisional Certification

Advisors: Anton Jensen (CHM), Stanley Hirschi (PHY), David Matty (GEL), Claudia Douglass (BIO).

This major offers a balanced, interdisciplinary program of coursework in the life, physical, and earth and space sciences for students planning to teach secondary school science. The required courses have been selected to prepare students to teach the science content in the Michigan Curriculum Framework including strong preparation in science inquiry through laboratory and field methods experiences. Students are encouraged to work closely with an advisor throughout their program. Courses, where appropriate, may be double counted with the University Program and the degree requirements on the Bachelor of Science in Education.

This major may be reduced to 39 semester hours when combined with a minor in Biology, Chemistry, Earth Science, or Physics. If your minor is Biology, do not count the 16 hours of Life Science courses listed below. If your minor is Earth Science, do not count the 17 hours of Earth and Space Science courses listed below. If your minor is Chemistry, do not count the 8 hours of Chemistry (CHM) courses listed below. If your minor is Physics, do not count the 10 hours of Physics (PHY) listed below.

Additional credits at the 300-level or higher may need to be added if the remaining number of credits is below 39. Your advisor will help you choose the appropriate courses. Students are cautioned that they must have 36 semester hours on their Integrated Science major that are not counted on any other major or minor for teacher certification.

Admission Requirements, Retention & Termination Standards

All courses must be taken for a grade, not for credit/no credit even if offered as an option. Grades in courses transferred to CMU will count in the calculation of the major GPA. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

In addition to the courses listed below, each student must receive training in safe chemical use and storage and the care of living things from trained personnel prior to applying for student teaching. This major is administered by the Integrated Science Education Council.

The following requirements are pending state approval and may change. See your advisor.

Required Courses I (16 hours)
Life Science
- BIO 110 - Concepts of Biology 4(3-3)
- BIO 203 - General Botany 3(2-3)
- BIO 208 - Microbiology 3(2-3)
- BIO 218 - General Zoology 3(2-3)

Plus any 300-level or higher biology course selected in consultation with an advisor.

Required Courses II (11 hours)
Earth and Space Science
- AST 111 - Astronomy 3(3-0)
- AST 112 - Introduction to Astronomical Observations 1(0-2)
- MET 201 - Weather 4(4-0)

Plus any 300-level or higher geology, astronomy, or weather courses selected in consultation with an advisor.

Required Courses III (3 hours)
Earth and Space Science
Select one of the following:
- GEL 100 - Introduction to Earth Systems 3(2-2)
- GEL 130 - Earth Processes 3(2-2)

Note: GEL 130 is recommended.

Required Courses IV (3 hours)
Earth and Space Science
Select one of the following:
- GEL 201 - Earth History 3(2-2)
- GEL 230 - Prehistoric Life 3(3-0)

Required Courses V (18 hours)
Physical Science
- CHM 131 - Introduction to Chemistry I 4(3-3)
- CHM 132 - Introduction to Chemistry II 4(3-3)
- PHY 130 - College Physics I 4(4-0)
- PHY 131 - College Physics II 4(4-0)
- PHY 170 - College Physics Laboratory I 1(0-2)
- PHY 171 - College Physics Laboratory II 1(0-2)

Required Courses VI (3 hours)
Teaching Science
- SCI 400 - Teaching Integrated Science in Secondary School 3(2-2)

Total: 39-54 semester hours

Integrative Public Relations Major
B.A.; B.A.A.; B.S. degrees

Integrative Public Relations is an interdepartmental major grounded in the disciplines concerned with the practice of public relations. Students are strongly encouraged to work closely with their academic advisor throughout their academic careers.

Admission Requirements, Retention & Termination Standards

In order to sign a major in Integrative Public Relations, a student must first complete IPR 101 with a grade of C or higher.

Grade Point Average:
1. IPR majors are required to earn a minimum of a C in all required and elective courses in the major.
2. A minimum 2.5 GPA in the major is required.
Internship Requirements:
1. To complete the program, IPR majors must satisfactorily complete a 6 credit hour internship with a grade of C or higher.
2. Any student enrolling in internship hours must have completed all of the required courses except for 500 level courses, earned a C or higher in all courses taken in the major including electives and have attained junior/senior status.

Required Courses (41 hours)

- BCA 210 - Survey of the Mass Media 4(4-0)
- BCA 311 - Broadcast and Cable Copywriting 3(3-0)
- BCA 512 - Broadcast and Cable Promotion 3(3-0)
- COM 264 - Organizational Communication 3(3-0)
- COM 357 - Public Speaking 3(3-0)
- IPR 101 - Foundations of Integrative Public Relations 1(1-0)
- IPR 555 - Public Relations Internship 3-6(Spec)
- JRN 202 - Writing for the Mass Media 3(3-0)
- JRN 302 - Introduction to Graphics and Visual Communication 3(3-0)
- JRN 350 - Public Relations Principles and Practices 3(3-0)
- JRN 450 - Public Relations Writing 3(3-0)
- JRN 551 - Case Studies in Public Relations 3(3-0)
- JRN 556 - Public Relations Seminar 3(3-0)

Note: COM 357 fulfills the oral competency requirement.

Electives I (6 hours)
Select from the following:
- COM 195 - Intercultural Communication 3(3-0)
- COM 353 - Small Group Communication 3(3-0)
- COM 362/WST 362 - Gender Communication 3(3-0)
- COM 363 - Principles and Types of Interviewing 3(3-0)
- COM 365 - Persuasion and Social Influence 3(3-0)
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 561 - Communication in Conflict Management 3(3-0)

Electives II (3 hours)
Select from the following:
- BCA 317 - Radio and TV Performance 3(2-2)
- BCA 318 - Radio and Television News 3(3-0)
- BCA 503 - Critiquing Mass Media 3(3-0)
- BCA 505 - Advanced Electronic Media Writing 3(3-0)
- BCA 511 - Broadcast and Cable Sales 3(3-0)

Electives III (9 hours)
Select a total of 9 hours of Multimedia and Entrepreneurship from the following groups:

Group A (3-6 hours)
Select hours from business:
- ENT 210/ACC 210 - Accounting Information for Entrepreneurial Decision Making 3(3-0)
- ENT 221/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
- ENT 320/FIN 320 - Financial Management of the Entrepreneurial Venture 3(3-0)
- PHL 318 - Business Ethics 3(3-0)

Group B (3-6 hours)
Select hours from research into publics:
- PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
- PSY 211 - Introduction to Psychological Statistics 3(3-0)
- PSY 337 - Psychology of Advertising 3(3-0)
- SOC 200 - Introduction to Social Research and Analysis 3(3-0)
- TAI 585 - Creative Dramatics 3(2-2)
- TAI 373 - Oral Interpretation for Children 3(3-0)

Group C (0-3 hours)
Select hours from multimedia design and integrated marketing:
- CPS 282 - Introduction to Multimedia Design 3(3-0)
- CPS 482 - Advanced Multimedia Design 3(3-0)
- JRN 360 - Advertising Principles 3(3-0)
- JRN 365 - Advertising Media 3(3-0)
- MKT 300 - Introduction to Marketing 3(3-0)

Total: 59 semester hours

Language Arts Major
B.S. in Ed. degree, Provisional Elementary Certification
The purpose of the Language Arts major is to prepare prospective teachers to function effectively in this integral component of the elementary classroom. The goal of the program is to have the students possess the knowledge, skills, and understanding of the role of language arts in elementary education. The prospective teacher also should develop the ability to communicate and use this knowledge in all areas of the language arts classroom. This major may not be combined with a reading minor.

Language Arts is an interdisciplinary program that combines courses in the departments of Teacher Education and Professional Development, English, and Communication and Dramatic Arts, and may be authorized by faculty in those departments. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

Required Courses (13 hours)
Select one of the following:
- ENG 481 - International Literature for Children and Young Adults 3(3-0)
- ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)

Other Requirements I (3 hours)
Select one of the following:
- EDU 431 - Corrective Reading in the Classroom 3(3-0)
- ENG 315 - Teaching Writing in the Elementary School 4(3-1)
- ENG 381 - Children's Literature 3(3-0)

Other Requirements II (3 hours)
Select one of the following:
- CDO 130 - Normal Speech and Language Acquisition 3(3-0)
- ENG 175 - The Nature of Language 3(3-0)

Other Requirements III (3 hours)
Select one of the following:
- ENG 481 - International Literature for Children and Young Adults 3(3-0)
- ENG 482 - Fantasy for Youth 3(3-0)
- ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
- ENG 583 - The Heroic Tradition in Children's Literature 3(3-0)

Other Requirements IV (2-3 hours)
Select one of the following:
- EDU 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
- EDU 532 - Reading in the Content Areas 3(3-0)
- ENG 371 - Pedagogic Grammar 2(2-0)
- ENG 517 - Reading and the English Classroom 3(3-0)
- TAI 302 - Voice and Diction 3(3-0)

Other Requirements V (3 hours)
Select one of the following:
- CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
- ENG 385 - Poetry for Children and Young Adults 3(3-0)
- TAI 373 - Oral Interpretation for Children 3(3-0)
- TAI 585 - Creative Dramatics 3(2-2)
Electives (8-9 hours)

to be selected from the above list of approved electives

Total: 36-37 semester hours

Note: No more than 19 credit hours may be taken in the same department.

Interdisciplinary

Language Arts Minor

B.S. in Ed. degree, Provisional Elementary Certification or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

The purpose of the Language Arts minor is to prepare prospective teachers to function effectively in this integral component of the elementary classroom. The goal of the program is to have the students possess the knowledge, skills, and understanding of the role of language arts in elementary education. The prospective teacher also should develop the ability to communicate and use this knowledge in all areas of the language arts classroom.

Language Arts is an interdisciplinary program that combines courses in the departments of Teacher Education and Professional Development, English, and Communication and Dramatic Arts, and may be authorized by faculty in those departments. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Required Courses (13 hours)

EDU 330 - Reading in the Elementary School 3(3-0)
EDU 431 - Corrective Reading in the Classroom 3(3-0)
ENG 315 - Teaching Writing in the Elementary School 4(3-1)
ENG 381 - Children's Literature 3(3-0)

Other Requirements I (3 hours)

Select one of the following:

CDO 130 - Normal Speech and Language Acquisition 3(3-0)
ENG 175 - The Nature of Language 3(3-0)

Other Requirements II (3 hours)

Select one of the following:

ENG 481 - International Literature for Children and Young Adults 3(3-0)
ENG 482 - Fantasy for Youth 3(3-0)
ENG 581 - The History of Children's Literature 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
ENG 583 - The Heroic Tradition in Children's Literature 3(3-0)

Other Requirements III (2-3 hours)

Select one of the following:

CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
EDU 532 - Reading in the Content Areas 3(3-0)
ENG 371 - Pedagogic Grammar 2(2-0)
ENG 517 - Reading and the English Classroom 3(3-0)
TAI 302 - Voice and Diction 3(0-3)

Other Requirements IV (3 hours)

Select one of the following:

COM 569 - Communication in the Classroom 3(3-0)
ENG 385 - Poetry for Children and Young Adults 3(3-0)
TAI 373 - Oral Interpretation for Children 3(3-0)
TAI 585 - Creative Dramatics 3(2-2)

Total: 24-25 semester hours

Note: No more than 19 credit hours may be taken in the same department.

Interdisciplinary

Latin American Studies Interdisciplinary Minor

B.A.; B.S. degrees

This minor is designed for students with a strong interest in Latin America. Cultural, political and economic ties between this region and the United States have always been strong, and are becoming ever more important in the world arena. A student with a minor in this area will be able to become involved more easily into different political, industrial, and cultural areas of the U.S., both nationally and internationally, in private and governmental sectors. The minor can also constitute a preparation for more specialized studies in graduate school.

Students are encouraged to include study abroad as a part of their fulfillment of requirements for the minor. Advisors and the Office of International Programs will assist the student in selecting from a number of recommended sites and universities throughout Latin America, including the Universidad Austral de Chile located in Valdivia, Chile. Transfer credits can be arranged or recognized to count in the identified Requirements or Component Courses areas listed below.

For more information, contact the advisors for the program, Dr. Sergio Chavez, Department of Sociology, Anthropology, and Social Work, 118 Anspach Hall, 774-3656; or Dr. Mary-Garland Jackson, Department of Foreign Languages, Literatures, and Cultures, 313 Pearce Hall, 774-3447

Language Requirement

Latin American Studies minors are required to attain basic proficiency in Spanish. Basic proficiency can be demonstrated by successful completion of SPN 202 or equivalent.

Required Courses I (12 hours)

ANT 321 - Cultures of Latin America 3(3-0)
GEO 373 - Latin America 3(3-0)
HST 163 - The Latin American Experience 3(3-0)
PSC 348 - Latin American Political Systems 3(3-0)

Required Courses II (3 hours)

Three hours from SPN 300 level or above.

Required Courses III (3 hours)

Three hours from component courses listed under Electives.

Required Courses IV (3 hours)

Three hours from ANT from component courses listed under Electives.

Electives (3 hours)

The electives may be satisfied by either:
1. 3 hours chosen from component courses listed below.
2. 3 hours of study abroad in a Latin American country, as approved by an advisor.
3. 3 hours of independent study or special topics on a Latin American topic, as approved by an advisor.

ANT 175 - Archaeology of the Americas 3(3-0)
ANT 340 - South American Archaeology 3(3-0)
ANT 368 - Hispanic Cultures in the U.S. 3(3-0)
HST 362 - Latin American Revolutions: Mexico, Cuba and Central America 3(3-0)
HST 562 - The Atlantic World in the Age of Empire 3(3-0)
PSC 352 - US - Latin American Relations 3(3-0)
SPN 377 - Culture and Civilization of Latin America 3(3-0)
SPN 388 - Survey of Spanish-American Literature (Beginnings to Modernism) 3(3-0)
SPN 389 - Survey of Spanish-American Literature (Modernism to Present) 3(3-0)
SPN 415 - Spanish-American Novel 3(3-0)
SPN 416 - Spanish-American Drama and Essay 3(3-0)
SPN 417 - Spanish-American Poetry and Short Story 3(3-0)

Total: 24 semester hours
Interdisciplinary

Leadership Minor
B.A.; B.A.A.; B.F.A.; B.S.; and B.S. in B.A.

The Leadership minor is a 24-credit-hour interdisciplinary program that includes both theoretical and experiential components. The major objective of the program is to educate students for and about leadership and prepare them to acquire leadership positions in their community and profession. The minor complements a wide variety of academic programs such as: health professions, business, political science, recreation, parks and leisure services, military science, communication, and education.

Required Courses I (9-12 hours)
- COM 461 - Communication in Leadership 3(3-0)
- LDR 200 - Introduction to Leadership 3(2-2)
- LDR 402 - Applications of Leadership 3(6-Spec)

Required Courses II (3 hours)
- Select one of the following:
  - PHL 118 - Moral Problems 3(3-0)
  - PHL 218 - Ethical Theory 3(3-0)
  - PHL 318 - Business Ethics 3(3-0)

Electives (9-12 hours)
- Choose one course from each of the three elective tracks listed below. The course may be selected from any of the tracks, or LDR 402 can be taken for six credits, three of which count in the core requirements, the other three credits would count as elective credits. Elective tracks and courses to be selected in consultation with an advisor.

Track 1 - Understanding Human Behavior and Development
Courses in this track provide a study of the theories, frameworks, and research that assist in the understanding and prediction of human behavior. Each course addresses aspects of how behavior develops through normal maturation processes, the identification of traits and behavior to meet environmental demands or personal goals.

- EDU 280 - Education of Children 3(3-0)
- HEV 100 - Human Growth and Development: Lifespan 3(3-0)
- MSL 102 - Basic Leadership 2(1-2)
- PSC 101 - Political Behavior 3(3-0)
- PSC 235 - Politics and Personality 3(3-0)
- PSY 100 - Introduction to Psychology 3(3-0)
- PSY 220 - Developmental Psychology 3(3-0)
- PSY 340 - Studies in Personality 3(3-0)

Note: You may count only one of EDU 280, HEV 100, or PSY 220.

Track 2 - Interpersonal and Group Interaction
Courses in this track address the major tenets of social interaction that may lead to group productivity and overall effectiveness. Each course provides an examination of how groups can develop into functioning units through the study of patterns of individual and group interaction (e.g., communication) within organizations and society in general.

- BLR 310 - Alternative Dispute Resolution in Business 3(3-0)
- COM 264 - Organizational Communication 3(3-0)
- COM 267 - Introduction to Debate 3(3-0)
- COM 353 - Small Group Communication 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)
- COM 367 - Nonverbal Communication 3(3-0)
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 561 - Communication in Conflict Management 3(3-0)
- ENG 402 - Argumentation and Exposition 3(3-0)
- MGT 348 - Dynamics of Organizational Behavior 3(3-0)
- MGT 355 - Communications: Managerial Applications 3(3-0)
- MSL 201 - Individual Leadership Studies 3(2-2)
- MSL 202 - Leadership and Teamwork 3(2-2)

PES 300 - Wilderness Experience for Leadership Development 3(2-2)
- PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
- PSY 330 - Social Psychology 3(3-0)
- PSY 336 - Industrial/Organizational Psychology 3(3-0)
- PSY 531 - Group Dynamics 3(3-0)
- PSY 535 - Organizational Psychology 3(3-0)
- RPL 206 - Recreation Activities Leadership 3(3-0)
- RPL 307 - Management Skills in Leisure Services 3(3-0)
- RPL 435 - Leadership in Adventure Education Programming 3(3-0)
- SOC 100 - Introductory Sociology 3(3-0)
- SOC 201 - Social Psychology 3(3-0)

Track 3 - Leadership in a Social, Political, or Historical Context
Courses in this track put the analysis of effective leaders and leadership practices into a specific historical, political, and/or social context. Each course provides a broad perspective of leadership as it examines a set of complex environmental variables that affect leader development and effectiveness.

- BCA 210 - Survey of the Mass Media 4(4-0)
- HSC 520 - Health Services Administration 3(3-0)
- HST 110 - The American Experience 3(3-0)
- HST 238 - Ancient Greece and Rome 3(3-0)
- HST 312 - American Military Experience 3(3-0)
- HST 325 - African-Americans in Twentieth Century America 3(3-0)
- LAR 145 - Racism and Diversity in America 3(3-0)
- MSL 301 - Leadership and Problem Solving 4(3-2)
- MSL 402 - OfficerShip 4(3-2)
- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 125 - African-American Politics 3(3-0)
- PSC 150 - World Politics 3(3-0)
- PSC 242 - Introduction to Comparative Politics 3(3-0)
- PSC 261 - State and Local Government 3(3-0)
- PSC 275 - Great Political Thinkers 3(3-0)
- PSC 321 - The American Chief Executive 3(3-0)
- PSC 371 - American Political Thought 3(3-0)
- PSC 373 - American Individualism 3(3-0)
- REL 345/PHL 345/PSC 325/SOC 345 - The Civil Rights Movement 3(3-0)
- RPL 405 - Administration of Recreation and Parks 3(3-0)

Total: 24 semester hours
Media Design, Production, and Technology Minor
B.S.; B.A.; B.A.A.

Advisors:
- Clark Most III, Department of Art, 774-3559
- Greg DeLauro, Department of Broadcast and Cinematic Arts, 774-1642
- Jay Murthay, Department of Computer Science, 774-3774
- Alan Papendick, Department of Engineering & Technology, 774-7692
- Elliott Parker, Department of Journalism, 774-3540
- Alan Papendick, Department of Engineering & Technology, 774-7692

The Minor in Media Design, Production, and Technology consists of 24 semester hours which will be divided into a 15 hour core and 9 hours of electives. The specific design of the minor follows:

**Required Courses (15 hours)**
- ART 135 - Introduction to Graphic Design 3(0-6)
- BCA 223 - Video Production 3(1-4)
- CPS 282 - Introduction to Multimedia Design 3(3-0)
- IET 143 - Introduction to Graphic Arts 3(2-2)
- JRN 220 - Basic Media Photography 3(3-0)

**Electives (9 hours)**
Select from the following in consultation with an advisor. Other electives may be substituted with consent of advisor.
- ART 235 - Logo and Identity Design 3(0-6)
- ART 239 - Digital Imaging I 3(0-6)
- ART 335 - Design Bureau 3(0-6)
- ART 349 - Typography 3(0-6)
- ART 435 - Professional Design Practices 3(0-6)
- BCA 222 - Audio Production 3(1-4)
- BCA 421 - Advanced Audio Production 3(2-2)
- BCA 422 - Intermediate Video Production 3(2-2)
- BCA 521 - Electronic Cinematography 3(2-2)
- BCA 522 - Multimedia Audio Post-Production 3(2-2)
- BCA 532 - Advanced Video/Multimedia Post-Production 3(2-2)
- CPS 165 - Designing Web Pages 1(1-0)
- CPS 482 - Advanced Multimedia Design 3(3-0)
- IET 343 - Line Photography and Beginning Offset 3(2-2)
- IET 543 - Production Printing Methods 3(2-2)
- ITC 320 - Web-Based Applications 3(3-0)
- ITC 582 - Multimedia Systems 3(3-0)
- JRN 302 - Introduction to Graphics and Visual Communication 3(3-0)
- JRN 320 - Photo Editing 3(3-0)
- JRN 420 - Photography Studio Techniques 3(3-0)
- JRN 422 - The Photographic Process 3(3-0)

**Note:** Students may also select, as part of their Elective hours, an Internship Experience through a Participating Department (3 hours)

**Total: 24 semester hours**

**Note:** Students may not apply more than 6 hours of coursework from their declared major towards this minor. Students are required to achieve a grade of C (2.0) or better in each of the Core courses in the minor.

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Interdisciplinary

**Museum Studies Minor**
B.A.; B.A.A.; B.F.A.; B.S.; and B.S. in B.A. degrees

**Contact:** The Museum of Cultural and Natural History 774-3829 (103 Rowe Hall)

**Why Minor in Museum Studies?**
Museums collect, preserve and interpret real objects for the purposes of public education, professional research and personal inspiration. Museums and similar organizations play a vital role in the life of many communities and promise to play an increasingly important role in the lives of families and individuals in the 21st century.

In addition to traditional museums of natural history, art and history, experience in Museum Studies is helpful in working in organizations as diverse as art galleries and centers; aquariums, zoos and botanical gardens; science, technology and nature centers; historic houses, villages and sites; and national, state and local park interpretation facilities. For this reason, students major in the discipline of their choice—art, anthropology, biology, or history, for example—and minor in Museum Studies so that the intellectual foundations of subject matter content are firmly established prior to studying museum practice.

Museum Studies courses introduce students to non-profit managerial and financial practices, museum ethics and legal issues, collections management and care, museum education and presentation techniques, and audience survey and program evaluation techniques. The knowledge and skills cultivated in the museum studies courses can be applied wherever lifelong learning, heritage tourism, environmental education, cultural resource management or free-choice learning opportunities are provided.

**The Museum Studies Minor at CMU**
This 24-credit-hour minor consists of 3 required core courses totaling 9 credit hours, a 6-credit-hour internship and 9 hours of elective courses chosen from a list of approved electives in consultation with the director of the Museum Studies program. The three required courses include introduction to museum work, collections management and care, and museum interpretation and education.

The internship, usually the last requirement to be completed, involves at least 240 contact hours with a non-profit cultural organization. Students should consult with the director of the Museum Studies program and arrange the internship placement at least two months before the semester in which they wish to register for MST 598, Museum Internship.

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**
It is essential that students interested in a Museum Studies minor meet with the program advisor as early in their educational career as possible. They are also encouraged to take introduction to Museum Work, MST 546, before signing a minor.

1. Grade Point Average (GPA):
   A. Prior to applying for admissions for the minor, students must have completed 45 hours of university work with an overall GPA of 2.0.
   B. MST minors are required to earn a minimum of C in all courses on their minor.

2. Course Information:
   A. Students minoring in museum studies must select an additional nine hours of elective courses in consultation with MST advisor.
   B. Courses on the MST minor cannot be taken on a credit/no credit basis.

(continued)
C. Field trip expenses for any MST class are prorated among the students.

D. Students who enroll for MST courses without prerequisites or permission of the instructor will be dropped from that course.

**Required Courses (15 hours)**

- MST 546 - Introduction to Museum Work 3(3-0)
- MST 550 - Museum Collections Management and Care 3(3-0)
- MST 551 - Museum Education and Interpretation Techniques 3(3-0)
- MST 598 - Museum Internship 6(Spec)

**Electives (9 hours)**

Selected from the following in consultation with the advisor. Other electives may be substituted with consent of advisor.

- ACC 201 - Concepts of Financial Accounting 3(3-0)
- ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
- ANT 174 - Introduction to Prehistoric Archaeology: From Stone Age to Civilization 3(3-0)
- ANT 240 - Archaeological Field and Laboratory Techniques 1-4(Spec)
- ANT 500 - Field School in Archaeology 3-6(Spec)
- ART 135 - Introduction to Graphic Design 3(0-6)
- ART 386 - American Art from the Colonial Period to 1913 3(3-0)
- BIO 229 - Nature Study 3(2-3)
- BIO 306 - Natural History of Vertebrates 3(2-3)
- BIO 538 - Anatomical Preparations 2(1-3)
- EGL 102 - Physical Geology Laboratory 1(0-2)
- GEL 320 - Earth Materials 3(2-3)
- HEV 155 - Introduction to Textiles 3(2-2)
- HEV 328 - Design History and Criticism 3(3-0)
- HEV 355 - Textile Analysis 3(2-2)
- HST 111 - United States to 1865 3(3-0)
- HST 112 - United States 1865 to the Present 3(3-0)
- HST 301 - The Craft of History 3(3-0)
- HST 323 - History of Native Americans 3(3-0)
- HST 333 - History of Michigan 3(3-0)
- IET 143 - Introduction to Graphic Arts 3(2-2)
- IET 160 - Wood Technology 3(1-4)
- IET 170 - Metal Technology 3(1-4)
- IET 365 - Plastics Technology 3(2-2)
- MKT 300 - Introduction to Marketing 3(3-0)
- MST 547 - Museum Science Laboratory 3(0-6)
- PSC 210 - Introduction to Public Administration 3(3-0)
- RPL 405 - Administration of Recreation and Parks 3(3-0)
- TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
- TAI 177 - Stagecraft and Stage Lighting 4(4-0)
- TAI 182 - Acting I 3(3-0)
- TAI 377 - Costuming I 3(3-0)

**Total: 24 semester hours**

**Note:** Students planning to pursue a museum career should elect a major in an appropriate academic discipline (e.g., biology, geology, history, anthropology, art, etc.).

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**Interdisciplinary Major**

**Music Theatre Major**

*B.F.A. degree*

Students wishing to develop the skills necessary to become a professional performer in theatrical genres that combine acting with music and dance, need a program that provides training and experience in those areas.

**Music Theatre at CMU.** Students interested in the BFA-Music Theatre program should contact the Office of the Dean, College of Communication and Fine Arts to discuss dates and criteria for the auditions.

**Admission Requirements, Retention & Termination Standards**

**Admission.** Admission to the program is by audition only. The auditions occur early in the spring semester each year. Auditions are attended by faculty from music, theatre, and dance. Criteria and information about the audition process may be found at [http://www.ccfa.cmich.edu/mtheatre](http://www.ccfa.cmich.edu/mtheatre), or by contacting the Office of the Dean, College of Communication and Fine Arts, or by writing to the Director, BFA-Music Theatre Program, 129 Moore Hall, Central Michigan University, Mt. Pleasant, MI, 48859.

**Retention.** Each year, Music Theatre majors demonstrate their progress as singers/actors in performance examinations known as juries. Juries are held during the final examination time at the end of the spring semester. In a jury, the Music Theatre major performs for faculty and receives written comments. Students are allowed two attempts to satisfactorily complete each jury level. Only one attempt may be made each semester. Failure to pass to a higher level of study will result in dismissal from the Music Theatre program.

Additional criteria for continuing in the program include meeting the current university standard for grade point average (GPA). A student who has been awarded a Music Theatre Scholarship has additional criteria to fulfill. These criteria are listed on the Music Theatre Scholarship material each student receives at the end of each semester. Scholarship students are required to request renewal of the scholarship at the end of each semester.

**Information for Transfer Students.** The principle goal of the Music Theatre program is to provide comprehensive training in the complex area of music theatre that integrates various performance skills (music, theatre, dance) and production experiences into a high quality pre-professional major. All students wishing to become a BFA-Music Theatre major must audition. Information about audition dates and requirements may be found at [www.ccfa.cmich.edu/mtheatre](http://www.ccfa.cmich.edu/mtheatre). Answers to many other questions may be found there as well.

Transfer students often have questions about what courses they should take to prepare for the Music Theatre program. Since each student’s background is different, it is difficult to give answers that will apply to all situations. Generally, training in the following areas is recommended but not required to enter the CMU Music Theatre program:

- A. Studies in music, particularly formal voice lessons
- B. Studies in acting, particularly basic acting classes
- C. Studies in dance, particularly basic dance technique classes

**Required Courses I (44 hours)**

- DAN 133 - Dance Technique I 2(1-2)
- DAN 136 - Ballet Technique I 2(Spec)
- DAN 137 - Tap I 2(Spec)
- DAN 138 - Jazz I 2(Spec)
- DAN 230 - Movement-Rhythmic Form and Structure 3(3-0)
- DAN 231 - Fundamental Movement 2(2-0)
- DAN 232 - Dance Composition I 2(2-0)
- MUS 147 - Piano Class I 1(0-2)
- MUS 148 - Piano Class II 1(0-2)
- MUS 206 - Understanding Musical Composition 3(3-0)
Earn a minimum of a 2.7 GPA in the courses taken to satisfy admission requirements, retention and termination standards. It is essential that students interested in a Natural Resources Minor (NRM) meet with an NRM advisor as early as possible to discuss interests, needs, as well as to decide on electives. Students demonstrating sufficient proficiency as determined by appropriate DAN faculty member(s) may substitute a higher level skills course for DAN 136, DAN 137, and DAN 138. Students demonstrating sufficient proficiency as determined by appropriate MUS faculty member(s) may substitute a higher level skills course for MUS 147 and MUS 148.

**Required Courses (15 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 240 - Conservation of Natural Resources</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIO 340 - Ecological Anthropology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEL 100 - Introduction to Earth Systems</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>GEL 201 - Earth History</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>GEO 203 - Introduction to Geographic Information Systems</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

**Electives (9 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 229 - Nature Study</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO 361 - Water Conservation</td>
<td>1(Spec)</td>
<td></td>
</tr>
<tr>
<td>BIO 362 - Forest Conservation</td>
<td>1(Spec)</td>
<td></td>
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<tr>
<td>BIO 363 - Fisheries Conservation</td>
<td>1(Spec)</td>
<td></td>
</tr>
<tr>
<td>BIO 364 - Wildlife Conservation</td>
<td>1(Spec)</td>
<td></td>
</tr>
<tr>
<td>BIO 366 - Freshwater Biology</td>
<td>2</td>
<td></td>
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<tr>
<td>BIO 440 - Wildlife Ecology</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO/GEOL 334 - Soil Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BLR 521 - Environmental Law and Policy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEL 304 - Water Resources</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEL 305 - Remote Sensing of the Environment</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>GEO 310 - Surface Hydrology</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>GEO 335 - Biogeography</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GEO 404 - Global Positioning System</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GEO 503 - Geographic Information Systems</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total: 24 semester hours**

**Admission Requirements, Retention and Termination Standards**

1. Sign the authorization with the advisor as soon as possible.
2. Complete the core and elective courses specified on the authorization.
3. Earn a minimum of a 2.7 GPA in the courses taken to satisfy the minor.
4. Accumulate 24 semester hours of approved coursework that are not counted toward any major(s) or another minor. Any courses that are counted toward a student's major(s) or minor(s) that match core or elective courses on the NRM authorization must be replaced by other courses on the electives list and should be selected in consultation with the advisor.
Option A (5 hours)
CHM 120 - Survey of Chemistry 4(4-0)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)

Option B (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Option C (9 hours)
CHM 161 - Principles of Chemistry 5(4-4)
CHM 211 - Quantitative Analysis 4(3-5)

Other Requirements II (4-8 hours)
Select one of the following options:
Option A (4 hours)
CHM 342 - Survey of Organic Chemistry 4(3-3)

Option B (8 hours)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)

Other Requirements III (3-6 hours)
Select one of the following options:
Option A (3 hours)
CHM 421 - Survey of Biochemistry 3(3-0)

Option B (3 hours)
CHM 425 - Introductory Biochemistry 3(3-0)

Option C (6 hours)
CHM 521 - Biochemistry I 3(3-0)
CHM 522 - Biochemistry II 3(3-0)

Electives (12 hours)
Selected in consultation with and the approval of your advisor.

Electives I (6 hours)
Select two of the following:
BIO 218 - General Zoology 3(2-3)
BIO 324 - Cell Biology 3(3-0)
BIO 325 - Genetics 4(3-3)
BIO 337 - Comparative Vertebrate Anatomy 4(3-3)
BIO 534 - Endocrinology 3(2-3)
BIO 552 - Scanning Electron Microscope Technique 4(1-6)
BIO 554 - Advanced Electron Microscopy 3(1-4)
HSC 214 - Human Anatomy 4(3-3)

Electives II (6 hours)
Select two of the following:
BIO 518 - Animal Behavior 3(2-3)
HST 235 - Psychoactive Drugs 3(3-0)
PSY 382 - Perception 3(3-0)
PSY 383 - Learning and Memory 3(3-0)
PSY 384 - Behavior Analysis 3(2-2)
PSY 585 - Psychophysiology 3(3-0)
PSY 587 - Physiological Psychology 3(3-0)

Total: 51-62 semester hours

Interdisciplinary

Social Science Major
B.A.; B.S. degrees
Students will be assigned an advisor in the department of their field of concentration.

Required Courses (36 hours)
1. A three-hour survey or introductory course in each of four of the following fields of social science: economics, geography, history, political science, sociology.
2. Twelve additional hours in one of these fields.
3. Twelve or more hours so selected that:
   a. None is in the field of concentration.
   b. In the total major at least fifteen hours are 300 or higher level.

Total: 36 semester hours

Interdisciplinary

Social Studies Major
B.A.; B.S.; B.S. in Ed. degrees, Provisional Elementary Certification
Advisors:
- Michael Libbee (Geography) - geography concentration
- Tim Hall (History) - history concentration.

In order to be recommended for student teaching, a student must:
1. Count no course with a grade lower than C- toward the major.
2. Have a minimum of 15 credit hours on the major at CMU with a cumulative average of at least 2.70.
3. Complete a departmental application form.
4. Have a grade of C+ or higher in the teaching methods course.

Required Courses I (12 hours)
Take all of the following:
GEO 120 - Environmental Geography 3(3-0)
GEO 121 - Cultures of the World 3(3-0)
PSC 101 - Political Behavior 3(3-0)
PSC 105 - Introduction to American Government and Politics 3(3-0)

Required Courses II (3 hours)
Select one of the following:
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)

Required Courses III (3 hours)
Select one of the following:
HST 111 - The Development of Western Civilization 3(3-0)
HST 112 - The Development of Western Civilization 3(3-0)

Required Courses IV (6 hours)
Select two of the following:
ECO 101 - Economics as a Way of Thinking 3(3-0)
ECO 110 - Economics and Society 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
ECO 280 - Economics of the World 3(3-0)

Electives (15 hours)
1. A concentration in a single discipline of at least 9 hours in addition to required courses. No more than 18 hours from a single discipline may be counted toward the major, including the required courses.
2. Take at least 12 hours 300 level or higher.
3. Select at least one course from each of the following groups

Group I (3 hours)
Select one of the following:
GEO 395 - Michigan 3(3-0)
HST 333 - History of Michigan 3(3-0)

Group II (3 hours)
Select one of the following:
GEO 395 - Michigan 3(3-0)
HST 333 - History of Michigan 3(3-0)
Group III (3 hours)
Select one of the following:
ECO 230 - Women in the Economy 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326 - Women in America 3(3-0)
HST 354 - Women in European History 3(3-0)
PSC 125 - African-American Politics 3(3-0)
PSC 325 - The Civil Rights Movement 3(3-0)
PSC 326 - Women and Politics 3(3-0)

Group IV (3 hours)
Select one course from World regions other than North America or Europe from ECO, HST, GEO, OR PSC.

Group V (3 hours)
Select one of the following:
GEO 400 - Geographic Education 3(2-2)
HST 400 - History for Secondary Schools 3(3-0)
PSC 405 - Methods for Teaching Political Science 3(3-0)

Total: 39 semester hours

Social Studies Major
B.S. in Ed. degree, Provisional Secondary Certification

The Social Studies major requires an accompanying minor in History. Double counting between the major and minor is not allowed.

Dr. Joyce Baugh of the Political Science department advises students. Students are recommended for student teaching by the Political Science department. In order to be recommended for student teaching, each student must:
1. Count no course toward the major with a grade lower than C-.
2. Have completed a minimum of 15 credit hours on the major at CMU with a cumulative average of at least 2.70.
3. Complete a departmental application form and present a recommendation/endorsement to teach from two faculty members in departments on the major.
4. Have a grade of C+ or higher in the teaching methods course.
5. A maximum of 6 hours on the major, including PSC 305, may be taken CR/NC.

Required Courses I (23 hours)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
GEO 120 - Environmental Geography 3(3-0)
PSC 105 - Introduction to American Government and Politics 3(3-0)
PSC 261 - State and Local Government 3(3-0)
PSC 305 - Midtier Teaching in Political Science 2(1-2)
PSC 405 - Methods for Teaching Political Science 3(3-0)

Required Courses II (9 hours)
Additional hours of Political Science chosen from the following:
PSC 101 - Political Behavior 3(3-0)
PSC 320 - The American Legislative Process 3(3-0)
PSC 321 - The American Chief Executive 3(3-0)
PSC 322 - Judicial Process and Politics 3(3-0)
PSC 323 - American Parties and Politics 3(3-0)
PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
PSC 421 - Constitutional Law: Powers of Government 3(3-0)
PSC 422 - Constitutional Law: Civil Rights and Liberties 3(3-0)

Required Courses III (6 hours)
One course from the following:
ECO 301 - Environmental Economics 3(3-0)
ECO 306 - Money and Banking 3(3-0)
ECO 310 - American Economic Development 3(3-0)
ECO 381 - Patterns of Economic Development 3(3-0)

One additional 3 hour GEO course at the 300-500 level.

Electives (3 hours)
Selected from ECO, GEO, and PSC in consultation with an advisor.

Total: 39-41 semester hours

Note: Minimum of 17 hours at the 300-level or higher selected from the areas above.
Interdisciplinary

**Women’s Studies Major**

*B.A.; B.A.A.; B.S. degrees*

Women’s Studies is a multi-disciplinary course of study that fosters understanding of the ways in which social patterning of female and male roles impacts on human behavior and on the accumulation of knowledge. It satisfies the needs of students working in a large number of disciplines. The Women’s Studies major requires 30 hours of coursework and a second major taken in any discipline offered at Central Michigan University.

The director of the Women’s Studies Program serves as advisor for all students taking this major.

The Women’s Studies office is located in 120 Anspach (774-3601).

**Core Courses (9 hours)**

- HST 326/WST 328 - Women in America 3(3-0)
- PHL/PSC/WST 426 - Feminist Theory 3(3-0)
- WST 496 - Capstone Seminar in Women’s Studies 3(3-0)

**Required Courses I (9 hours)**

- Three of the following
  - ANT/SOC/WST 590 - Gender, Culture, and Society 3(3-0)
  - ECO/WST 230 - Women in the Economy 3(3-0)
  - GRN/WST 430 - Women and Aging 3(3-0)
  - PSC/WST 326 - Women and Politics 3(3-0)
  - PSY/WST 334 - Psychology of Women 3(3-0)
  - SOC/WST 317 - Sociology of Sex and Gender 3(3-0)

**Required Courses II (6 hours)**

- Select one of the following:
  - COM/WST 362 - Gender Communication 3(3-0)
  - ENG/WST 327 - Women Writers 3(3-0)
  - REL/WST 207 - Women in Religion 3(3-0)

**Electives (6 hours)**

- Choose from the courses not selected from Required Courses, or from the following groups, with no more than three hours from Electives II.
  - Electives I (3-6 hours)
    - ART/WST 382 - Women and Art 3(3-0)
    - ENG/WST 327 - Women Writers 3(3-0)
    - HST/WST 354 - Women in European History 3(3-0)
    - REL/WST 207 - Women in Religion 3(3-0)
    - REL/WST 303 - Goddesses 3(3-0)
  - Electives II (0-3 hours)
    - BLR/WST 325 - Women and the Law 3(3-0)
    - HEV/SOC/WST 213 - Introduction to Human Sexuality 3(3-0)
    - HSC/WST 202 - Women’s Health 3(3-0)
    - HST/WST 221 - Growing Up in America 3(3-0)
    - JRN 380 - Racial Diversity: Mass Media’s Role 3(3-0)
    - MGT 357 - Women in Management 3(3-0)
    - PES/WST 319 - Women and Sport 2(2-0)
    - SOC/WST 410 - Women, Crime and Deviance 3(3-0)
    - WST 297 - Special Topics in Women’s Studies 3-6(Spec)
    - WST 497 - Special Topics in Women’s Studies 3-6(Spec)

**Additional Requirements:**

1. Completion of a second major in any discipline offered by CMU.
2. Courses must be selected in consultation with an advisor.

**Total:** 30 semester hours

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Interdisciplinary

**Women’s Studies Minor**

*B.A.; B.A.A.; B.S.; B.S. in B.A. degrees*

The director of the Women’s Studies Program serves as advisor for all students taking this minor. The Women’s Studies office is located in 120 Anspach (774-3601).

**Core Courses (9 hours)**

- HST 326/WST 328 - Women in America 3(3-0)
- PHL/PSC/WST 426 - Feminist Theory 3(3-0)
- WST 496 - Capstone Seminar in Women’s Studies 3(3-0)

**Required Courses I (6 hours)**

- Two of the following
  - ANT/SOC/WST 590 - Gender, Culture, and Society 3(3-0)
  - ECO/WST 230 - Women in the Economy 3(3-0)
  - GRN/WST 430 - Women and Aging 3(3-0)
  - PSC/WST 326 - Women and Politics 3(3-0)
  - PSY/WST 334 - Psychology of Women 3(3-0)
  - SOC/WST 317 - Sociology of Sex and Gender 3(3-0)

**Required Courses II (3 hours)**

- Select one of the following:
  - COM/WST 362 - Gender Communication 3(3-0)
  - ENG/WST 327 - Women Writers 3(3-0)
  - REL/WST 207 - Women in Religion 3(3-0)

**Electives (6 hours)**

- Choose from the courses not selected from Required Courses, or from the following groups, with no more than three hours from Electives II.
  - Electives I (3-6 hours)
    - ART/WST 382 - Women and Art 3(3-0)
    - HST/WST 354 - Women in European History 3(3-0)
    - PSY/WST 334 - Psychology of Women 3(3-0)
    - REL/WST 303 - Goddesses 3(3-0)
  - Electives II (0-3 hours)
    - No more than three hours from Group II
    - BLR/WST 325 - Women and the Law 3(3-0)
    - HEV/SOC/WST 213 - Introduction to Human Sexuality 3(3-0)
    - HSC/WST 202 - Women’s Health 3(3-0)
    - HST/WST 221 - Growing Up in America 3(3-0)
    - JRN 380 - Racial Diversity: Mass Media’s Role 3(3-0)
    - MGT 357 - Women in Management 3(3-0)
    - PES/WST 319 - Women and Sport 2(2-0)
    - SOC/WST 410 - Women, Crime and Deviance 3(3-0)
    - WST 297 - Special Topics in Women’s Studies 3-6(Spec)
    - WST 497 - Special Topics in Women’s Studies 3-6(Spec)

**Total:** 24 semester hours
This section lists majors and minors that are interdepartmental. Most majors and minors are described within their appropriate departments. Consult the Index of this Bulletin under the name of the major or minor you want to find. Reminder: when choosing a teaching major or minor, you must have a 2.7 GPA to be approved for student teaching.

Interdepartmental

Accounting Information Systems Major
B.S. in B.A. degree
This major is listed in the College of Business Administration section. See the index for the page number.

Interdepartmental

Advertising Minor
B.A.; B.A.A.; B.S.; and B.S. in B.A. degrees
The Advertising Minor is offered by the Department of Journalism and the Department of Marketing and Hospitality Services Administration. The minor brings together courses designed to provide skills for the student with a career interest in advertising. It also provides a working knowledge of advertising for those in careers closely related to advertising.

Required Courses I (15 hours)
JRN 302 - Introduction to Graphics and Visual Communication 3(3-0)
JRN 360 - Advertising Principles 3(3-0)
JRN 465 - Advertising Copy and Design 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)
MKT 410 - Advertising Management 3(3-0)

Required Courses II (3 hours)
Select one of the following:
JRN 365 - Advertising Media 3(3-0)
MKT 315 - Advertising Media 3(3-0)

Electives (6 hours)
Electives in advertising approved by the advertising minor advisor.

Total: 24 semester hours

Interdepartmental

Business Administration Minor
Advisor: Linda Wicander (105 Grawn, 774-3124)
This minor is listed in the College of Business Administration section. See the index for the page number.

Interdepartmental

Chemistry-Physics Major
B.S. in Ed. degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement
The Chemistry-Physics Major, offered by the Departments of Chemistry and Physics, is designed to prepare prospective high school teachers of chemistry and physics.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS: A minimum 2.7 GPA (B-) must be earned in all teaching majors.

The following mathematics courses or equivalent skills are prerequisites for some of the required courses on this major: MTH 132; MTH 133, MTH 223, MTH 233, MTH 334. Consequently, a minimum of 18 hours of MTH courses will normally be required to complete this major in addition to the 46 or 49 hours specified above. Students with incomplete high school preparation may find it necessary to complete additional MTH courses.

Required Courses I (5-8 hours)
Select one of the following options:
Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)

Required Courses II (41 hours)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 331 - Inorganic Chemistry 3(3-0)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 1(0-8)
CHM/PHY 505 - Teaching Chemistry and Physics in Secondary Schools 3(3-0)
CHM/PHY 507 - Field Experience in Teaching Chemistry/Physics 1(Spec)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)
PHY 231 - Electronic Instrumentation 1(0-3)
PHY 277 - University Physics Laboratory III 1(0-3)
PHY 322 - Intermediate Mechanics 3(3-0)
PHY 392 - Electricity and Magnetism 3(3-0)

Other Requirements (41 hours)
Additional requirements:
1. The student must have completed the specified chemistry courses for the Chemistry-Physics major, in addition to CHM/PHY 505 (3) and 507(1), before approval for student teaching can be given. The student must have a minimum grade point average of 2.70 in those 24-27 hours of courses. Transfer chemistry credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a minimum grade point average of 2.70. At least 12 of the required chemistry credit hours must have been received within 10 years of application for student teaching.
2. In order for a student to be approved for student teaching in chemistry, two CMU chemistry faculty must, at the student's request, provide completed department student evaluation forms. Students must also furnish transcripts showing all chemistry course credits.
3. Each student must demonstrate competence in chemistry by passing an American Chemical Society standardized chemistry examination at a specified level in order to be approved for student teaching.

(continued)
For students seeking the Physics Department’s recommendation for student teaching in physics, the following requirements must be met:

1. At least 20 hours of physics (including CHM/PHY 505) must be completed with a grade point average of 2.7.
2. At least 6 hours of physics (excluding CHM/PHY 505) must be completed at CMU.

Total: 46 or 49 semester hours

Interdepartmental

**Computer-Integrated Manufacturing Major**

*B.A.; B.S. (Plan A or B) degrees*

This major offers an integrated program of coursework for students planning CIM/CAD/CAM related careers. The student will have an advisor in both the Computer Science and Engineering and Technology Departments.

**ADMISSION REQUIREMENTS; RETENTION & TERMINATION STANDARDS**

The following mathematics courses or equivalent skills are prerequisites for some of the required courses on this major: MTH 132 (4), MTH 175 (3) and MTH 223 (3). Students with incomplete high school preparation may find it necessary to complete additional mathematics courses.

Note: The Computer-Integrated Manufacturing curriculum consists of extensive laboratory work which involves a close physical relationship with electrical/electronic equipment necessitating specific safe practices. Examples include voltage checks, use of safety guards, and continuous observation of associated visual alarms, caution signs and auditory signals.

As you select from the majors and minors, remember that you are pursuing a degree, and must meet all the degree requirements as well as the major and minor requirements. Students pursuing the Computer-Integrated Manufacturing majors are required to meet with an ET advisor and/or a CPS advisor during the first semester of attendance at CMU.

A maximum of six semester hours of Credit/No Credit may be used on departmental majors or minors. Credit/No Credit courses are identified in the course offering guides.

**Required Courses (39 hours)**

- CPS 170 - Operating Systems Commands 1-3(Spec)
- CPS 180 - Principles of Computer Programming 3(3-0)
- CPS 181 - Introduction to Data Structures 3(3-0)
- CPS 210 - Assembly Language and Computer Organization 3(3-0)
- CPS 280 - Alternative Programming Languages 1-6(Spec)
- CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
- CPS 360 - Computer Design and Architecture 3(3-0)
- IET 154 - Engineering Design Graphics 3(2-2)
- IET 359 - Parametric Design and Modeling 3(2-2)
- IET 375 - Robotics 3(2-2)
- IET 377 - Numerical Control Programming 3(3-0)
- IET 457 - Computer-Aided Design 3(2-2)
- IET 477 - Computer-Assisted Numerical Control Programming 3(3-0)
- IET 502 - Computer Applications in Industry 3(3-0)

**Electives (12 hours)**

- IET Electives (6 hours) selected with the approval of an ET advisor and CPS Electives (6 hours) at CPS 280 level or above and selected with the approval of a CPS advisor.
- CPS 282 - Introduction to Multimedia Design 3(3-0)
- CPS 370 - File Manipulation Techniques 3(3-0)
- CPS 380 - Microcomputer Architecture 3(3-0)
- CPS 410 - Software Engineering 3(3-0)

Total: 51 semester hours

Interdepartmental

**Computer Science-Mathematics Major**

*B.A.; B.S. degrees*

This major offers a coordinated program of coursework for students planning careers which require extensive knowledge of both computing and mathematics. The student will have an advisor in both the Mathematics and the Computer Science Departments.

**Required Courses (48 hours)**

- CPS 180 - Principles of Computer Programming 3(3-0)
- CPS 181 - Introduction to Data Structures 3(3-0)
- CPS 210 - Assembly Language and Computer Organization 3(3-0)
- CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
- CPS 360 - Computer Design and Architecture 3(3-0)
- CPS 410 - Software Engineering 3(3-0)
- CPS 450 - Programming Language Concepts 3(3-0)
- MTH 132 - Calculus I 4(4-0)
- MTH 133 - Calculus II 4(4-0)
- MTH 175 - Discrete Mathematics 3(3-0)
- MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
- MTH 233 - Calculus III 4(4-0)
- MTH 332 - Introduction to Analysis 3(3-0)
- MTH 438 - Numerical Analysis I 3(3-0)
- MTH 523 - Modern Algebra I 3(3-0)

**Electives (11 hours)**

Electives, approved by an advisor, from the following:

- CPS 282 - Introduction to Multimedia Design 3(3-0)
- CPS 370 - File Manipulation Techniques 3(3-0)
- CPS 380 - Microcomputer Architecture 3(3-0)
- CPS 395 - Internship in Computer Science 1-9(Spec)
- CPS 420 - Windows Programming 3(3-0)
- CPS 468 - Systems Programming and Software 3(3-0)
- CPS 470 - Introduction to Operating Systems 3(3-0)
- CPS 480 - Introduction to Artificial Intelligence 3(3-0)
- CPS 482 - Advanced Multimedia Design 3(3-0)
- CPS 496 - Special Topics in Computer Science 1-6(Spec)
- CPS 530 - Simulation of Discrete Event Systems 3(3-0)
- CPS 541 - Databases 3(3-0)
- CPS 559 - Computer Graphics 3(3-0)
- CPS 596 - Special Topics In Computer Science 1-6(Spec)
- CPS 597 - Independent Study 1-6(Spec)
- MTH 334 - Differential Equations 3(3-0)
- MTH 375 - Discrete Structures 3(3-0)
- MTH 439 - Numerical Analysis II 3(3-0)
- MTH 520 - Optimization Theory 3(3-0)
- MTH 521 - Theory of Numbers 3(3-0)
Computer Technology Major

B.A.; B.S. degrees

This major offers an integrated program of coursework for students planning careers in the design and construction of computer systems. The student will have an advisor in both the Computer Science and Engineering and Technology departments.

**Admission Requirements; Retention & Termination Standards**

Note: CMU is not currently accepting students into this program.

The following mathematics courses or equivalent skills are prerequisites for some of the required courses on this major: MTH 132 (4) and MTH 175 (3). Students with incomplete high school preparation may find it necessary to complete additional mathematics courses.

Note: The Computer Technology curriculum consists of extensive laboratory work which involves a close physical relationship with electrical/electronic equipment necessitating specific safe practices. Examples include voltage checks, use of safety guards, and continuous observation of associated visual alarms, caution signs and auditory signals.

As you select from our majors and minors remember that you are pursuing a degree, and must meet all the degree requirements as well as the major and minor requirements. Students pursuing the Computer Technology major are required to meet with an ET advisor and/or a CPS advisor during the first semester of attendance at CMU.

A maximum of six semester hours of Credit/No Credit may be used on departmental majors or minors. Credit/No Credit courses are identified in the course offering guides.

**Required Courses (47 hours)**

- MTH 532 - Advanced Calculus I 3(3-0)
- MTH 533 - Advanced Calculus II 3(3-0)
- MTH 545 - Introduction to Point-Set Topology 3(3-0)
- MTH 570 - Mathematical Logic 3(3-0)
- MTH 578 - Combinatorics I 3(3-0)
- MTH 586 - Operations Research I 3(3-0)
- MTH 587 - Operations Research II 3(3-0)
- STA 382 - Elementary Statistical Analysis 3(3-0)
- STA 580 - Applied Statistical Methods I 3(3-0)
- STA 584 - Mathematical Statistics I 3(3-0)
- STA 585 - Mathematical Statistics II 3(3-0)

**Total: 59 semester hours**

**General Business Administration Major**

B.S. in B.A. degree

Advisor: Linda Wicander (105 Grawn, 774-3124)

This major is listed in the College of Business Administration section. See the index for the page number.

**Industrial Safety Minor**

B.A.; B.A.A.; B.S. in B.A. degrees

This 24 semester hour non-teaching minor focuses on contemporary problems and practices related to safety and environmental control. This minor is administered by the Department of Engineering and Technology. Students who wish additional information or a minor authorization should consult with an advisor in the department.

**Admission Requirements; Retention & Termination Standards**

Note: As you select from our majors and minors remember that you are pursuing a degree, and must meet all the degree requirements as well as the major and minor requirements. Students pursuing the Industrial Safety minors are required to meet with an ET advisor during the first semester of attendance at CMU.

A maximum of six semester hours of Credit/No Credit may be used on departmental majors or minors. Credit/No Credit courses are identified in the course offering guides.

**Required Courses (21-23 hours)**

- HSC 235 - Psychoactive Drugs 3(3-0)
- HSC 352 - Environmental Health 3(3-0)
- HSC 359 - Alcohol Education Workshop 1(1-0)
- HSC 529 - College Physics Laboratory I 1(0-2)
- HSC 530 - Drug Abuse Workshop 1(Spec)
- IET 427 - Product Reliability and Safety 3(3-0)
- IET 527 - Industrial Safety Management 3(3-0)

* HSC 235 may be submitted for HSC 529 or HSC 530.

**Electives (1-3 hours)**

- FIN 257 - Risk Management 3(3-0)
- HSC 235 - Psychoactive Drugs 3(3-0)
- HSC 357 - Stress Reduction Workshop 1(Spec)
- IET 524 - Technology and Environment 3(3-0)

**Total: 24 semester hours**
Interdepartmental

International Business Major
B.S. in B.A. degree

This major is listed in the College of Business Administration section. See the index for the page number. Advisor is assigned by the Department of Management, 774-3193.

Interdepartmental

Law and Economics Major
B.A.; B.S. degrees

This major is listed in the College of Business Administration section. See the index for the page number.

Interdepartmental

Law and Economics Major
B.S. in B.A. degree

This major is listed in the College of Business Administration section. See the index for the page number.

Interdepartmental

Public Affairs Minor
B.A.; B.S.; B.A.A. degrees

The Public Affairs Minor is offered by the Department of Journalism and the Department of Political Science.

The minor brings together courses designed to provide skills and knowledge for the student with a career interest in public affairs communication.

Only JRN 202 (3) can be double-counted by Journalism majors and minors. Only PSC 105 (3) can be double-counted by Political Science majors and minors. Credits from only one internship, either Journalism or Political Science can be counted toward the Public Affairs Minor. Internship hours are limited to 3.

Required Courses (12 hours)
JRN 202 - Writing for the Mass Media 3(3-0)
JRN 350 - Public Relations Principles and Practices 3(3-0)
PSC 105 - Introduction to American Government and Politics 3(3-0)
PSC 261 - State and Local Government 3(3-0)

Electives (12 hours)
JRN 360 - Advertising Principles 3(3-0)
JRN 450 - Public Relations Writing 3(3-0)
JRN 551 - Case Studies in Public Relations 3(3-0)
JRN 556 - Public Relations Seminar 3(3-0)
JRN 559 - Public Relations Internship 1-4(Spec)
PSC 210 - Introduction to Public Administration 3(3-0)
PSC 313 - Budgetary Processes in the United States 3(3-0)
PSC 320 - The American Legislative Process 3(3-0)
PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
PSC 395 - Internship in Government and Politics 1-2(Spec)

Total: 24 semester hours

Interdepartmental

Purchasing and Supply Management Major
B.S. in B.A. degree

This major is listed in the College of Business Administration section. See the index for the page number.
College Mission

The College of Business Administration mission is to foster an active learning-centered environment to provide innovative, high quality, business-connected programs responding to the changing intellectual needs of students and the Michigan Business community.

Our degree programs reflect our dedication to provide active student learning that develops the knowledge and skills necessary for student success. The college encourages this environment beyond the classroom through active professional student organizations and strong student support services. Business students are encouraged to seek meaningful experiences in the business community and to willingly adapt to the rapidly changing business environment.

The College of Business Administration offers undergraduate and graduate degree programs which are professionally accredited by the American Assembly of Collegiate Schools of Business (AACSB). The accreditation assures quality business programs and the ability to attract excellent faculty with extensive professional teaching experience. The AACSB is the premier accrediting agency for bachelor’s and master’s degree programs in business administration and accounting.

Areas of Study

The College of Business Administration offers the B.S. in Business Administration degree. Some programs are available on other degrees, such as: a Business Education major on the B.S. in Education degree offered by the Department of Business Information Systems; an Entrepreneurship major on the B.A.A. degree; an Economics major on the B.S. or B.A. degree offered by the Department of Economics, and an Law and Economics Major on the B.S. or B.A. degree offered by the Department of Economics and the Department of Finance and Law.

The Master of Business Administration graduate degree is available within the College of Business Administration. The Master of Science in Information Systems is offered by the Department of Business Information Systems. A Master in Economics is available in the Department of Economics. Requirements for these degrees are described in the Bulletin, College of Graduate Studies.

The College operates the LaBelle Center for Entrepreneurial Activities which include opportunities for students to provide consulting services for small businesses under the direction of a faculty coordinator.

The student interested in majoring or minoring in the College of Business Administration should contact the Office of Business Student Services during their first semester at Central Michigan University. This office offers academic advisement relating to admission to Professional Business Studies (PBS), degree requirements and career planning.

Your education in the College of Business Administration not only provides the skills you need for your first job, but also is committed to instilling in you the desire to remain current in your field for the rest of your career. Our graduates have successfully advanced to become business, government, and community leaders.

Nearly 93% of College of Business Administration graduates report they are employed in their respective fields within three months of graduation or accepted into graduate programs.

Admission, Retention & Termination Standards

Application to Professional Business Studies

A Pre-Business Professional Program application should be completed during orientation and given to the Office of Business Student Services. This application will be reviewed each semester to monitor each student’s progress toward admission to Professional Business Studies (PBS).

Eight Semester Sequence of Courses

Students earning the B.S. in B.A. degree follow a structured eight semester sequence of degree requirements. Contact the office of Business Student Services at 774-3124 for additional information.

Admission to Professional Business Studies is a two-tier process.

Students follow a specific 8 semester sequence of courses. Please contact the office of Business Student Services for more information.

1. Tier 1 Continuing Admission to Professional Business Studies will be granted to all students who have earned a 2.0 cumulative grade point average (GPA) in the following courses: BUS 100 (3) Essential Business Skills (Minimum grade of “C” required) BIS 101 (3) Essential Business Communication Skills ECO 203 (3) Microeconomic Principles of Business

2. Tier 2 Full Admission to Professional Business Studies will be awarded to students who satisfy the following requirements:

A. Completion of at least 42 semester credits with a minimum cumulative GPA of 2.50.

B. Completion of the following courses:

- ECO 204 (3) Principles of Macro- and Global Economics
- ACC 250 (3) Introduction to Financial Accounting
- BIS 101 (3) Business Law
- BUS 100 (3) Essential Business Skills
- MTH 217 (4) Business Calculus
- STA 282 (3) Intro to Statistics
- OR STA 383 (3) Elementary Statistical Analysis
- STA 282 (3) Intro to Statistics

C. A 2.0 minimum cumulative GPA in the following courses: BUS 100, BIS 101, ECO 203, ECO 204, ACC 250, BLR 235, and STA 282 or STA 382.

*Tier 2 is a competitive selection process. Specific cumulative grade point requirement will be dependent upon the pool of applicants, with a minimum acceptable cumulative GPA of 2.50.

Immediately following Tier 2 Admission, students should contact a departmental advisor in the College of Business Administration to sign a major and plan a program of study.

Maintaining Tier 2 Full Admission

Each student’s B.S. in Business Administration degree program of study will include the following components:

1. Each student will complete a common set of required business courses. (See page 108)

2. Students must maintain a minimum cumulative GPA of 2.00 in the following BSBA degree courses:

- ACC 255 (3) Managerial Accounting & Decision Making
- BIS 255 (3) Information Systems
- MGT 258 (3) Effective Management of Human Resources in Organizations
- BUS 300 (3) Applied Business Statistics

(continued)
3. Students must earn a minimum of 124-126 hours semester hours, at least 40 of which must be in courses numbered 300 or above.

4. A minimum of 35 semester hours must be taken on campus from the College of Business Administration and must include the Integrated Core (BUS 301, FIN 302, MGT/MKT 303, MKT 304) and MGT 499 Integrated Capstone - Strategic Management.

5. Each student must complete one of the following business majors (no minor is required on the business degree):
   - Accounting
   - Accounting Information Systems
   - Economics
   - Economics and Law
   - Finance
   - General Business Administration
   - General Management
   - Hospitality Services Administration
   - Human Resources Management
   - International Business
   - Law and Economics
   - Logistics Management
   - Management Information Systems
   - Marketing
   - Operations Management
   - Personal Financial Planning
   - Purchasing and Supply Management
   - Real Estate: Development and Finance
   - Retail Management
   - Other Degree Programs

Some business programs are available on other CMU degrees. They include: Economics Major on the B.A. or B.S. degrees and the Entrepreneurship Major on the B.A.A. degree, the Business Teacher Education Major on the B.S. in Education degree, and the Law and Economics major on the B.A. or B.S. degrees.

Additional Standards for Interdepartmental and Interdisciplinary Majors and Minors

- To sign a major in General Business Administration: See an advisor in the Office of Business Student Services. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

- To sign a major in International Business: See an advisor in the Department of Management. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

- To sign a major in Entrepreneurship: See an advisor in the LaBelle Entrepreneurship Center. A student is required to earn a C (2.0) or better in both ENT/BLR 200 and ENT/ECO 213 prior to signing a major.

- To sign a minor in Business Administration: See an advisor in the Office of Business Student Services and bring along a copy of your signed major. This minor is NOT available to students seeking the Bachelor of Science in Business Administration degree. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation.

- To sign a minor in Global Business: See an advisor in the CBA department where you are signing your major. This minor is only available to students who are pursuing a departmental business major (not available for General Business Administration majors). A signed foreign language minor in German, French, or Spanish is required.

- To sign a minor in Entrepreneurship: See an advisor in the LaBelle Entrepreneurship Center and bring along a copy of your signed major.

Honors Admission to Professional Business Studies

Students who wish to pursue a Bachelor of Science in Business Administration (BSBA) and meet the following requirements will be granted admission to Professional Business Studies

1. ACT composite score of 25 or higher;
2. High Schools GPA of 3.5 or higher; and
3. Completion of BUS 100 (3) Essential Business Skills with a 3.0 (B) or higher.
Interdepartmental and Interdisciplinary Majors and Minors

Interdepartmental

Accounting Information Systems Major
B.S. in B.A. degree

The Accounting Information Systems major is offered by the School of Accounting and the Department of Business Information Systems in the College of Business Administration. This major brings together courses designed to provide skills for the student interested in a career in accounting information systems.

The program gives a student a balanced education in the study of management information systems and accounting while providing flexibility to focus, based on interest, on specific parts of both disciplines by the choice of electives.

Advisors are assigned by the School of Accounting.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

1. At least 18 hours of accounting coursework must be taken at CMU for a major in Accounting Information Systems.

2. Introductory courses in accounting transferred to CMU are accepted for not more than six semester hours of credit.

3. No minor is required for Accounting Information Systems majors.

4. The only course available on a Credit/No credit basis that can be counted toward the Accounting Information Systems major is ACC 489.

5. A maximum of three semester hours of credit in accounting courses numbered with the ending digits 80-99 can be counted toward the Accounting Information Systems major.

6. A minimum of three semester hours of credit in accounting courses numbered with the ending digits 80-99 can be counted toward the Accounting Information Systems major.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MG 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (18 hours)
ACC 301 - Intermediate Accounting I 3(3-0)
ACC 302 - Intermediate Accounting II 3(3-0)
ACC 321 - Managerial Cost Accounting 3(3-0)
ACC 370 - Accounting Systems and Controls 3(3-0)
BIS 228 - Computer Programming-COBOL 3(3-0)
BIS 420 - Systems Analysis and Design 3(3-0)

Accounting Electives (9 hours)
Select 9 credit hours from the following:
ACC 311 - Federal Income Taxation I 3(3-0)
ACC 489 - Accounting Internship/Co-Op 1-3(Spec)
ACC 501 - Advanced Accounting 3(3-0)
ACC 521 - Managerial Cost Control Analysis 3(3-0)
ACC 531 - Auditing and Assurance Services 3(3-0)
ACC 536 - Forensic Accounting 3(3-0)
ACC 543 - Fund Accounting 3(3-0)
ACC 550 - Internal Auditing 3(3-0)
ACC 570 - Strategic Accounting System Development and Implementation 3(3-0)
ACC 597 - Special Topics In Accounting 1-3(Spec)

NOTE: ACC 311 and 531 are required to take the CPA exam.

Management Information System Electives (3 hours)
Select hours from the following:
BIS 247 - SAP Enterprise Software in Business 3(3-0)
BIS 422 - Data Base Management Systems 3(3-0)
BIS 423 - Decision Support Systems 3(3-0)
BIS 424 - Client/Server Business Application Development 3(3-0)
BIS 480 - Telecommunications Management 3(3-0)

Programming Language Electives (3 hours)
Select hours from the following:
BIS 324 - Visual Basic Application Development 3(3-0)
BIS 328 - Structured Program Design 3(3-0)
BIS 357 - ABAP/4 Programming Fundamentals 3(3-0)

Total: 42 semester hours

NOTE: Minimum total semester credit hours required for graduation, 127.

Interdepartmental

General Business Administration Major
B.S. in B.A. degree

Advisor: Linda Wicander (105 Grawn, 774-3124)

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See page 153.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MG 499 - Integrated Capstone-Strategic Management 3(3-0)

Health Services Administration Concentration

Required Courses (21 hours)
FIN 442 - Intermediate Financial Management 3(3-0)
HSC 317 - Community Health 3(3-0)
HSC 512 - Special Topics in Health Education 1-12(Spec)
HSC 520 - Health Services Administration 3(3-0)
HSC 570 - Financial Aspects of Health Services Organizations 3(3-0)
MGT 348 - Dynamics of Organizational Behavior 3(3-0)
MKT 310 - Marketing Communications 3(3-0)

Note: 3 hours of HSC 512.

HSC Electives (6 hours)
To be chosen in consultation with advisor.
Total: 36 semester hours

Interdisciplinary

Entrepreneurship Major
B.A.A. degree

Advisor: James Damitio (ABSC 168, 774-3699)

This major offers a unique learning experience to students who aspire to begin a business of their own or secure employment in a non-business career which is dependent upon entrepreneur.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

To sign a major in Entrepreneurship: See an advisor in the LaBelle Entrepreneurship Center. A student is required to earn a C (2.0) or better in both ENT/BLR 200 and ENT/ECO 213 prior to signing the major.

Required Courses (34-40 hours)
ACC/ENT 210 - Accounting Information for Entrepreneurial Decision Making 3(3-0)
BIS/ENT 300 - Software Applications in Business 3(3-0)
BLR/EMT 200 - Introduction to Entrepreneurship Law 3(3-0)
ECO/ENT 213 - Economics for Entrepreneurs 3(3-0)
ENT/BLR 200 - Entrepreneurship Law and Practice 3(3-0)
ENT/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
ENT/FIN 320 - Financial Management of the Entrepreneurial Venture 3(3-0)
ENT/MGT 416 - Entrepreneurship in the Global Economy 3(3-0)
ENT/MGT 419 - Entrepreneurship and Small Business Management 3(3-0)
ENT 444 - Internship in Entrepreneurship/Not-For-Profit 4-10(Spec)
ENT 492 - Special Issues in Entrepreneurship 3(Spec)
STA 282 - Introduction to Statistics 3(3-0)*

Total: 34-40 semester hours

*Prerequisites for this course must be met.

The Entrepreneurship major must follow the restrictions of AACSB accreditation and must complete at least 50% of credits for graduation outside the College of Business Administration. The 27-hour rule does not apply to the Entrepreneurship Major. No more than 8 hours of electives taken from the same department as the student’s major will count towards graduation requirements.

Interdepartmental

International Business Major

B.S. in B.A. degree

Advisor: Assigned by the Department of Management (774-3193)

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

To sign a major in International Business: See an advisor in the Department of Management.
1. To register for most of the courses on the major, students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
2. Courses taken on a Credit/No Credit basis are not accepted on management department majors.
3. At least fifteen (15) credit hours of the required elective coursework of the major must be taken in the accredited AACSB Program at the CMU campus (Mt. Pleasant and Midland).

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (15 hours)
ECO 372 - International Economics 3(3-0)
FIN 573 - International Finance 3(3-0)
MGT 365 - International Business 3(3-0)
MKT 560 - International Marketing 3(3-0)

Foreign Language Requirement (6 hours)
Select hours at the 300 level or higher in a foreign language taught at CMU. Foreign students with native language different from English may substitute MGT courses subject to the approval of the major advisor.

Electives (6 hours)
You must earn at least 3 credits in study-abroad, with international emphasis, international work experience, or completion of a comprehensive research project with international emphasis. If only 3 credit hours are earned abroad, select one of the following:
ANT/SOC 370 - Global Environmental Issues 3(3-0)
ANT/SOC 457 - Globalization and Society 3(3-0)
ECO 380 - Comparative Economic Systems 3(3-0)
ECO 381 - Patterns of Economic Development 3(3-0)
FRN 335 - French for Business 3(3-0)
GEO 121 - Cultures of the World 3(3-0)
GEO 346 - Geography of the Developing World 3(3-0)
GER 335 - The Culture of the German Economy 3(3-0)
GER 490 - Advanced German for Business 3(3-0)
PSC 351 - International Relations 3(3-0)
PSC 555 - International Law 3(3-0)
SPN 335 - Spanish for Business 3(3-0)

Total: 36 semester hours

Interdepartmental

Law and Economics Major

B.A., B.S. degrees

The Law and Economics major combines the elements of both disciplines - the analytical and decision-making framework provided by economic theory as well as the reasoning and argumentation skills of business law. The modern manager faces legal implications of decision-making in daily operations and in formulating business strategy. Business law courses provide the student with insight into legal institutions, the nature of legal language, the regulatory environment and the legal principles pertaining to property rights, contracts, business organization and commercial relationships. The economic content features the use of problem-solving techniques to develop analytical decision-making skills. Students will gain an appreciation of the preservation of individual rights and methods to evaluate the efficiency of the legal system.

The major is intended for students preparing for a career in the legal profession or those seeking a legal emphasis within their business or liberal arts studies. A student planning to attend law school will receive valuable information on the use of economics in legal applications. A working knowledge of these basic issues also benefits others, e.g. expert witnesses routinely use economic concepts in testimonies.

Contact either the Finance and Law Department or the Economics Department for the names of advisors.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

1. Up to 6 hours may be taken as Credit/No Credit and counted towards the major.
2. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Required Courses (18 hours)
BLR 202 - Legal Environment of Business 3(3-0)
BLR 302 - Law of Agreements 3(3-0)
BLR 350/ECO 350 - Law and Economics 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
ECO 365 - Intermediate Microeconomic Theory 3(3-0)

Electives (15 hours)
Note: BLR 410 may be given credit as a 300-level or above Economics elective, or as a 300-level or above BLR elective, but not both.

Electives I (9 hours)
9 hours of electives in Economics at the 300-level or above; 6 hours of which must be from the following courses:
BLR 410 - Regulatory Law 3(3-0)
ECO 301 - Environmental Economics 3(3-0)
ECO 360 - Public Economics 3(3-0)
ECO 410 - Government and Business 3(3-0)
ECO 425 - The Economics of Industrial Organization 3(3-0)
ECO 515 - Collective Bargaining and Labor Law 3(3-0)

Electives II (6 hours)
6 hours of electives from any BLR course 300-level or above, excluding BLR 365.

Total: 33 semester hours
Law and Economics Major
B.S.B.A. degree

The Law and Economics major combines the elements of both disciplines - the analytical and decision-making framework provided by economic theory as well as the reasoning and argumentation skills of business law. The modern manager faces legal implications of decision-making in daily operations and in formulating business strategy. Business law courses provide the student with insight into legal institutions, the nature of legal language, the regulatory environment and the legal principles pertaining to property rights, contracts, business organization and commercial relationships. The economic content features the use of problem-solving techniques to develop analytical decision-making skills. Students will gain an appreciation of the preservation of individual rights and methods to evaluate the efficiency of the legal system.

The major is intended for students preparing for a career in the legal profession or those seeking a legal emphasis within their business or liberal arts studies. A student planning to attend law school will receive valuable information on the use of economics in legal applications. A working knowledge of these basic issues also benefits others, e.g. expert witnesses routinely use economic concepts in testimonies.

Contact either the Finance and Law Department or the Economics Department for the names of advisors.

Admission Requirements, Retention & Termination Standards
1. A student must first be admitted to Tier 2 Full Admission to Professional Business Studies. See College of Business Administration page for details.
2. Up to 6 hours may be taken as Credit/No Credit and counted towards the major.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (9 hours)
BLR 302 - Law of Agreements 3(3-0)
BLR 350/ECO 350 - Law and Economics 3(3-0)
ECO 365 - Intermediate Microeconomic Theory 3(3-0)

Electives (15 hours)

Note: BLR 410 may be given credit as a 300-level or above Economics elective, or as a 300-level or above BLR elective, but not both.

Electives I (9 hours)
9 hours of electives in Economics at the 300-level or above;
6 hours of which must be from the following courses:
BLR 410 - Regulatory Law 3(3-0)
ECO 301 - Environmental Economics 3(3-0)
ECO 360 - Public Economics 3(3-0)
ECO 410 - Government and Business 3(3-0)
ECO 425 - The Economics of Industrial Organization 3(3-0)
ECO 515 - Collective Bargaining and Labor Law 3(3-0)

Electives II (6 hours)
6 hours of electives from any BLR course 300-level or above, excluding BLR 365.

Total: 33 semester hours

Interdepartmental
Purchasing and Supply Management Major
B.S. in B.A. degree

This major is only available to students admitted to the College of Business Administration. This major can be signed by a designated faculty in either the Management or the Marketing and Hospitality Services Administration departments.

Admission Requirements, Retention & Termination Standards
1. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
2. Courses taken on a credit/no credit basis are not accepted on the Purchasing and Supply Management Major.
3. At least fifteen (15) credit hours of the required and elective course work of the major must be taken in the accredited AACSB Program at the CMU campus (Mt. Pleasant and Midland).

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (18 hours)
MGT 333 - Purchasing Management 3(3-0)
MGT 533 - Purchasing Strategy 3(3-0)
MGT 542 - Inventory and Materials Management 3(3-0)
MKT 330 - Marketing Channels 3(3-0)
MKT 340 - Personal Selling 3(3-0)
MKT 431 - Logistics Operations 3(3-0)

Electives (6 hours)
ACC 321 - Managerial Cost Accounting 3(3-0)
MGT 365 - International Business 3(3-0)
MGT 442 - Computer Applications for Production Operations Management 3(3-0)
MKT 490 - Internship In Management 1-6(Spec)
MKT 543 - Management and Control of Quality 3(3-0)
MKT 555 - Market and Sales Forecasting 3(3-0)
MKT 560 - International Marketing 3(3-0)

Total: 33 semester hours

At least fifteen (15) credit hours of the required and elective coursework of the major must be scheduled through the College of Business Administration on the CMU campus.

Minors

The Business Administration Minor is available to students pursuing nonteaching degrees outside the College of Business Administration. To graduate with this minor, no more than 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation. This minor is NOT available to students seeking the Bachelor of Science in Business Administration degree.

The College of Business Administration also offers specialized minors in certain departments. See the individual departmental sections for the requirements for these specialized minors.
Business Administration Minor
B.A.; B.A.A.; B.F.A.; B.S. degrees
Advisor: Linda Wicander (105 Grawn, 774-3124)

The Business Administration minor is available to students pursuing non-teaching degrees outside the College of Business Administration. The minor provides a broad background in business for students from other disciplines.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

To sign a minor in Business Administration: See an advisor in the Office of Business Student Services and bring along a copy of your signed major.

This minor is NOT available to students seeking the Bachelor of Science in Business Administration degree.

No more than a total of 27 hours of credit earned in business courses may be counted toward graduation. These hours include all business transfer credits from other colleges and/or universities and credits earned at Central Michigan University. To determine your qualifications, see the Office of Business Student Services.

Required Courses (24 hours)

ACC 201 - Concepts of Financial Accounting 3(3-0)
ACC 202 - Concepts of Managerial Accounting 3(3-0)
BIS 221 - Computers In Business I 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
FIN 332 - Managerial Finance 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)

Total: 24 semester hours

Entrepreneurship Minor
Advisor: James Damitio (ABSC, 774-3699)

This minor offers a unique learning experience to non-business students who aspire to begin a business of their own or secure employment in a non-business career which is dependent upon entrepreneurship. This minor is not available to students seeking the Bachelor of Science in Business Administration Degree.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

To sign a minor in Entrepreneurship: See an advisor in the LaBelle Entrepreneurship Center and bring along a copy of your signed major.

Required Courses (9 hours)

ACC/ENT 210 - Accounting Information for Entrepreneurial Decision Making 3(3-0)
BIS 300 - Software Applications in Business 3(3-0)
ENT/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)

Electives I (9 hours)

Select hours from the following:
BLR/ENT 200 - Introduction to Entrepreneurship Law 3(3-0)
ECO/ENT 213 - Economics for Entrepreneurs 3(3-0)
ENT/FIN 320 - Financial Management of the Entrepreneurial Venture 3(3-0)
ENT/MGT 416 - Entrepreneurship in the Global Economy 3(3-0)

Total: 21 semester hours

Global Business Minor
B.S. in B.A. degree

This minor is only available to students who are pursuing a departmental business major (not available for General Business Administration majors) and have signed a foreign language minor in German, French or Spanish. This minor may be signed in the department where you sign your business major.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

To sign a minor in Global Business: See an advisor in the CBA department where you are signing your major. This minor is only available to students who are pursuing a departmental business major (not available for General Business Administration majors). A signed foreign language minor in German, French, or Spanish is required.

Required Courses (9 hours)

FIN 573 - International Finance 3(3-0)
MGT 365 - International Business 3(3-0)
MKT 560 - International Marketing 3(3-0)

Electives (12 hours)

Select one of the following:
BIS 460 - Business Communication in a Global Environment 3(3-0)
ECO 372 - International Economics 3(3-0)
ECO 380 - Comparative Economic Systems 3(3-0)
PSC 150 - World Politics 3(3-0)

Plus 3 hours in GEO with a Global emphasis and 6 hours selected in consultation with your advisor from ART or HST or MUS with a Global Emphasis.

Total: 21 semester hours

Honors Option
Business Administration Protocol

The University Honors Program offers the Business Administration protocol which is available for students majoring in business and includes:

a. Twelve hours of Honors designated courses, (such as: ACC 201H, ACC 202H, BLR 202H, FIN 332H, MGT 312H, MGT 495H, MGT 300H, BIS 221H, BIS 360H);

b. Eight hours of a single foreign language, OR a six hour sequence of MTH 132H, STA 282 or STA 382, MKT 350;

c. Six hours of seminar or equivalent.

The seminar requirement may be satisfied with honors seminars, humanities seminars, seminar courses and independent studies from the College of Business Administration or independent research studies. For more information on the University Honors Program, see Honors in the index of this Bulletin.
Accounting

For information, please contact the chairperson, 774-3796, 312 Grawn Hall

Why Study Accounting?
Accounting is the one degree that provides you with the education needed to succeed in every aspect of the business world. It is one of the courses to study at the university that enables a student to enter a profession upon graduation. It also prepares students to obtain their certification in public accounting (CPA), management accounting (CMA) and internal auditing (CIA) upon graduation.

Because accounting is the international language of business, it is a versatile degree that offers a wide range of career opportunities to graduates. Accountants have titles like “Chief Executive Officer,” “Chief Financial Officer,” “Managing Partner,” and “Controller.” They work for national and international business firms, government agencies, non-profit organizations and in their own companies. Many work in certified public accounting (CPA) firms providing management consulting services, auditing services, personal and financial planning and tax services. Others are hired as part of the management team to work in the finance and operations area of a company. Some are hired to manage the revenues of federal, state, and local governmental agencies and non-profit organizations.

Accounting At CMU
The primary purpose of the School of Accounting is to prepare students for professional careers in public accounting, corporate accounting, nonprofit entities, and other organizations. The school’s mission is to honor this commitment by offering accounting programs of academic excellence, by providing a professional faculty, and by creating an environment which is, above all, learning centered and business connected. We are dedicated to delivering superior value to students: a small college focus on learning, coupled with a professional school experience, at a public university tuition.

The School of Accounting is one of only five programs in Michigan that have earned the prestigious accounting accreditation granted by the AACSB International.

The Faculty

Accounting Major
B.S. in B.A. degree

Admission Requirements, Retention & Termination Standards
1. To sign a major in Accounting, see an advisor in the School of Accounting. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
2. To graduate in a major in accounting, the student must complete a minimum of 126 hours. Ninety hours must be in non-accounting courses.
3. At least 18 hours of accounting coursework must be taken at CMU for a major in accounting.
4. Introductory courses in accounting transferred to CMU are accepted for not more than six semester hours of credit (equivalent to the hours of ACC 250 and ACC 255 at CMU).
5. No minor is required for accounting majors.
6. The only course available on a Credit/No Credit basis that can be counted toward the accounting major is ACC 489.
7. A maximum of three semester hours of credit in accounting courses numbered with the ending digits 80-99 can be counted toward the accounting major.
8. For additional information on CPA licensing, write:
Michigan State Board of Accounting,
Department of Consumer & Industry Services
Licensing Division
2501 Woodlake Circle, Okemos, MI 48864

A. For the CMA certificate, write:
Institute of Management Accounting
10 Paragon Drive
Montvale, NJ 07645- 1760

B. For the CIA certificate, write:
The Institute of Internal Auditors
249 Maitland Avenue
P.O. Box 1119
Altamonte Springs, FL 32715-1119

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Accounting Core (21 hours)
ACC 301 - Intermediate Accounting I 3(3-0)
ACC 302 - Intermediate Accounting II 3(3-0)
ACC 311 - Federal Income Taxation I 3(3-0)
ACC 321 - Managerial Cost Accounting 3(3-0)
ACC 370 - Accounting Systems and Controls 3(3-0)
ACC 501 - Advanced Accounting 3(3-0)
ACC 517 - Federal Estate and Gift Taxation 3(3-0)

Electives I (6-9 hours)
Select 2 or 3 courses from the following:
ACC 511 - Federal Income Tax II 3(3-0)
ACC 512 - Tax Research and Administration 3(3-0)
ACC 517 - Federal Estate and Gift Taxation 3(3-0)
ACC 521 - Managerial Cost Control Analysis 3(3-0)
ACC 524 - Budgeting: Planning and Control 3(3-0)
ACC 533 - Auditing Procedures and Statistical Sampling 3(3-0)
ACC 535 - EDP Auditing and Control 3(3-0)
ACC 536 - Forensic Accounting 3(3-0)
ACC 543 - Fund Accounting 3(3-0)
ACC 550 - Internal Auditing 3(3-0)
ACC 570 - Strategic Accounting System Development and Implementation 3(3-0)

Electives II (0-3 hours)
If only 2 courses are selected from group I above, select one course from the following list:
ACC 489 - Accounting Internship/Co-Op 1-3(Spec)
ACC 491 - Independent Studies 1-3(Spec)
ACC 492 - Practicum In Small Business 3(Spec)
ACC 597 - Special Topics In Accounting 1-3(Spec)
BIS 420 - Systems Analysis and Design 3(3-0)
BLR 302 - Law of Agreements 3(3-0)
BLR 390 - Law of Enterprise Organization 3(3-0)
FIN 442 - Intermediate Financial Management 3(3-0)
MGT 335 - Introduction to Management Science 3(3-0)
MKT 350 - Marketing Analysis 3(3-0)

Note: Accounting and business electives depend on the student’s career objectives and should be chosen in consultation with the student’s advisor.

Total: 39 semester hours

Accounting Minor
B.A.; B.A.A.; B.F.A.; B.S. in B.A. degrees

Required Courses (18 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
ACC 202 - Concepts of Managerial Accounting 3(3-0)
ACC 301 - Intermediate Accounting I 3(3-0)
ACC 302 - Intermediate Accounting II 3(3-0)
ACC 311 - Federal Income Taxation I 3(3-0)
ACC 321 - Managerial Cost Accounting 3(3-0)

Electives (2-3 hours)
Specified by a departmental advisor from 500-level accounting courses.

Total: 20-21 semester hours

Other pertinent information on the accounting minor includes the following:
1. At least nine hours of accounting coursework must be taken at CMU for a minor in accounting.
2. Introductory courses in accounting transferred to CMU are accepted for not more than six semester hours of credit (equivalent to the hours of ACC 201 and ACC 202).
3. No more than a total of 27 hours may be taken in the College of Business Administration and counted toward graduation unless the student is majoring in the College of Business Administration.

Accounting Information Systems Major
B.S. in B.A. degree

This is an Interdepartmental major. Please check the index for the page number.
Why Study Business Information Systems?
The programs within Business Information Systems prepare students for high-technology careers in business or teaching. These programs and courses support careers in business teacher education, management information systems, office systems, and interdepartmental majors in accounting information systems and hospitality information systems.

Why Major in MIS (Management Information Systems)?
- One hundred percent of the Management Information Systems graduates received employment offers before or immediately following graduation.
- First year salaries were among the highest received by the College of Business Administration graduates.
- Internship opportunities with organizations such as Dow Chemical, Dow Corning Corporation, Eli Lilly, State Farm Insurance, Auto Owners Insurance, and Howmet Corporation.
- Modern lab facilities in the College of Business Administration with up-to-date software programs.
- SAP®, the world’s leading Enterprise Resource Planning (ERP) software.

Why Major in Business Teacher Education (BTE)?
- A major in BTE can lead to a career in teaching/training at the secondary level, postsecondary level, and in the corporate setting.
- Michigan’s teachers are among the most qualified in the nation with 99% of public secondary teachers holding a teaching certificate in their main teaching assignment.
- Michigan’s teachers rank as the fourth highest paid in the nation.
- According to the U.S. Department of Labor (www.bls.gov), retirements in a number of education professions will create many job openings.

Business Information Systems at CMU
The goals of the department are (1) to provide quality undergraduate programs to prepare students for business careers in business information systems and business teaching and (2) to provide excellence in a graduate program leading to a Master of Science in Information Systems as well as graduate coursework in business information systems for the Master in Business Administration and business teaching emphasis for the Master of Arts in Secondary Education. Each program includes courses emphasizing a general education background as well as specialized business and professional studies.

The courses prepare students to use computers in a wide variety of applications. Subjects covered include program development, word processing, and software applications as well as analysis, design, development, and management of business systems and decision support, including web site development and graphics.

The department’s programs are recognized nationally. The business teacher education program is one of a small number of business teacher certification programs in Michigan that prepare secondary business teachers. The computer-intensive courses support all degree programs within the College of Business Administration and provide opportunities for all Central Michigan University students to acquire management information systems expertise. The management information systems programs follow the Association of Information Technology Professional’s model curriculum.

Notes:
With the exception of BIS 251, BIS 490, and HSC 201, the department does not accept Credit/No Credit courses on undergraduate majors and minors.
Graduate course offerings lead to the Master of Science in Information Systems and support the Master of Business Administration and the Master of Arts in Secondary Education degrees.

The Faculty
Frank J. Andera, James Cappel, Roger Hayen, Nancy Hicks, Zhenyu Huang, Mark Hwang, Anil Kumar, James Scott, Karl Smart, Susan Switzer, Hongjiang Xu
Majors

Accounting Information Systems Major
B.S. in B.A. degree

This is an interdepartmental major. Please check the index for the page number.

Management Information Systems Major
B.S. in B.A. degree

Admission Requirements, Retention & Termination Standards
To sign a major in Management Information Systems, see an advisor in the Business Information Systems Department. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

With the exception of BIS 490, the department does not accept Credit/No Credit courses on undergraduate majors.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (21 hours)
BIS 228 - Computer Programming-COBOL 3(3-0)
BIS 247 - SAP Enterprise Software in Business 3(3-0)
BIS 420 - Systems Analysis and Design 3(3-0)
BIS 422 - Data Base Management Systems 3(3-0)
BIS 423 - Decision Support Systems 3(3-0)
BIS 425 - Business Systems Applications 3(3-0)
BIS 480 - Telecommunications Management 3(3-0)

Electives I (6 hours)
Select 6 credit hours from the following courses:
BIS 288 - Business Computer Graphics 3(3-0)
BIS 423 - Decision Support Systems 3(3-0)
BIS 480 - Telecommunications Management (Networking) 3(3-0)
BIS 490 - Internship in Information Systems 3(3-0)

Total: 39 semester hours

Minors

No more than a total of 27 hours may be taken in the College of Business Administration and counted toward graduation unless the student is majoring in the College of Business Administration.

Management Information Systems Minor
B.S. in B.A. degree

The student must have a signed major in the College of Business Administration to be eligible for this minor. Select the appropriate 21 credit hours from the following groups.

Required Courses (18 hours)
BIS 228 - Computer Programming-COBOL 3(3-0)
BIS 247 - SAP Enterprise Software in Business 3(3-0)
BIS 324 - Visual Basic Application Development 3(3-0)
BIS 327 - Web Site Development 3(3-0)
BIS 420 - Systems Analysis and Design 3(3-0)
BIS 422 - Data Base Management Systems 3(3-0)

Electives (3 hours)
Select from the following courses:
BIS 288 - Business Computer Graphics 3(3-0)
BIS 423 - Decision Support Systems 3(3-0)
BIS 480 - Telecommunication Management (Networking) 3(3-0)
BIS 490 - Internship in Information Systems 3(3-0)

Total: 21 semester hours

Management Information Systems Non-Business Minor
B.A.; B.A.A.; B.S. degrees

This minor is available only to students whose major is outside the College of Business Administration.

Required Courses I (15 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
BIS 100 - Introduction to Business 3(3-0)
BIS 221 - Computers In Business I 3(3-0)
BIS 420 - Systems Analysis and Design 3(3-0)
BIS 422 - Data Base Management Systems 3(3-0)

Required Courses II (3 hours)
Select one of the following:
BIS 228 - Computer Programming-COBOL 3(3-0)
BIS 247 - SAP Enterprise Software in Business 3(3-0)

Required Courses III (3 hours)
Select one of the following:
ACC 202 - Concepts of Managerial Accounting 3(3-0)
MGT 312 - Introduction to Management 3(3-0)

Total: 21 semester hours
Business Teacher Education Majors and Minors

Admission Requirements, Retention & Termination Standards

A major in business teacher education must include a minor in general business (Plan A) or may include a teaching minor outside of the College of Business Administration (Plan B).

Business teacher education majors (Plan A or Plan B) must be admitted to teacher education. (See requirements for the B.S. in Ed. degree and Standards Leading to Teacher Certification.) To be eligible for student teaching, majors and minors must have a minimum overall grade point average of 2.7 (B-) in all courses listed on the required major and/or minor: BIS 251 (1), BIS 350 (3), BIS 351 (1), BIS 353 (1), BIS 356 (1), BIS 451 (3).

Students who desire endorsement in vocational office education or in vocational marketing education as part of their program of study should consult their major advisor for special requirements.

Business Teacher Education Major, Plan A
(requiring an Internal General Business Minor)

B.S. in Ed. degree, Provisional Secondary Certification

Admission Requirements, Retention & Termination Standards

See information at the beginning of the Business Teacher Education section.

Required Courses (26 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
BIS 209 - Technical Field Experience 1(0-1)
BIS 212 - Advanced Word Processing Applications 3(3-0)
BIS 251 - Field Experience In Business Education 1(Spec)
BIS 327 - Web Site Development 3(3-0)
BIS 350 - Principles of Business Education 3(3-0)
BIS 351 - Methods of Teaching Keyboarding/Word Processing 1(1-0)
BIS 353 - Methods of Teaching Secondary Accounting 1(1-0)
BIS 356 - Methods of Teaching Business, Management, Marketing, and Technology 1(1-0)
BIS 451 - Coordination in Vocational Education 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)

Select one of the following concentrations:

Marketing Concentration
Marketing Education Concentration Courses I (6 hours)
MGT 312 - Introduction to Management 3(3-0)
MKT 220 - Introduction to Retail Merchandising 3(3-0)

Marketing Education Concentration Courses II (3 hours)
Select one of the following:
MKT 325 - Merchandising Management 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)

Marketing Education Concentration Courses III (3 hours)
Select one of the following:
BIS 492 - Practicum in Small Business 3(Spec)
ENT/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
ENT/MGT 419 - Entrepreneurship and Small Business Management 3(3-0)

Office Education Concentration
Office Education Concentration Courses (12 hours)
BIS 280 - Office Information Processing 3(3-0)
BIS 298 - Business Computer Graphics 3(3-0)
BIS 370 - Office Management 3(3-0)
BIS 480 - Telecommunications Management 3(3-0)
Total: 38 semester hours

General Business Minor in Business Teacher Education

(Required of Business Teacher Education Plan A Majors and available only with Business Teacher Education major, marketing or office education concentration):

Required Courses I (18 hours)
BIS 221 - Computers In Business I 3(3-0)
BIS 321 - Computers in Business II 3(3-0)
BIS 360 - Business Communication 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
FIN 332 - Managerial Finance 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)

Required Courses II (3 hours)
Take one of the following:
BIS 401 - Cooperative Occupational Experience 3-6(Spec)
MKT 422 - Cooperative/Internship in Retailing 3-6(Spec)

Required Courses III (3 hours)
Take one of the following:
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)
Total: 24 semester hours

Business Teacher Education Major, Plan B
(Requiring a teaching minor from a department outside the College of Business Administration)

B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

See information at the beginning of the Business Teacher Education section.

Required Courses I (29 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
BIS 209 - Technical Field Experience 1(0-1)
BIS 212 - Advanced Word Processing Applications 3(3-0)
BIS 251 - Field Experience In Business Education 1(Spec)
BIS 327 - Web Site Development 3(3-0)
BIS 350 - Principles of Business Education 3(3-0)
BIS 351 - Methods of Teaching Keyboarding/Word Processing 1(1-0)
BIS 353 - Methods of Teaching Secondary Accounting 1(1-0)
BIS 356 - Methods of Teaching Business, Management, Marketing, and Technology 1(1-0)
BIS 451 - Coordination in Vocational Education 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)

Select one of the following concentrations:

Marketing Concentration
Marketing Education Concentration Courses I (6 hours)
MGT 312 - Introduction to Management 3(3-0)
MKT 220 - Introduction to Retail Merchandising 3(3-0)

Marketing Education Concentration Courses II (3 hours)
Select one of the following:
MKT 325 - Merchandising Management 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)

Marketing Education Concentration Courses III (3 hours)
Select one of the following:
BIS 492 - Practicum in Small Business 3(Spec)
ENT/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
ENT/MGT 419 - Entrepreneurship and Small Business Management 3(3-0)

Office Education Concentration
Office Education Concentration Courses (12 hours)
BIS 280 - Office Information Processing 3(3-0)
BIS 298 - Business Computer Graphics 3(3-0)
BIS 370 - Office Management 3(3-0)
BIS 480 - Telecommunications Management 3(3-0)
Total: 38 semester hours

General Business Minor in Business Teacher Education

(Required of Business Teacher Education Plan A Majors and available only with Business Teacher Education major, marketing or office education concentration):

Required Courses I (18 hours)
BIS 221 - Computers In Business I 3(3-0)
BIS 321 - Computers in Business II 3(3-0)
BIS 360 - Business Communication 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
FIN 332 - Managerial Finance 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)

Required Courses II (3 hours)
Take one of the following:
BIS 401 - Cooperative Occupational Experience 3-6(Spec)
MKT 422 - Cooperative/Internship in Retailing 3-6(Spec)

Required Courses III (3 hours)
Take one of the following:
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)
Total: 24 semester hours

Business Teacher Education Major, Plan B
(Requiring a teaching minor from a department outside the College of Business Administration)

B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

See information at the beginning of the Business Teacher Education section.

Required Courses I (29 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
BIS 209 - Technical Field Experience 1(0-1)
BIS 212 - Advanced Word Processing Applications 3(3-0)
BIS 251 - Field Experience In Business Education 1(Spec)
BIS 327 - Web Site Development 3(3-0)
BIS 350 - Principles of Business Education 3(3-0)
BIS 351 - Methods of Teaching Keyboarding/Word Processing 1(1-0)
BIS 353 - Methods of Teaching Secondary Accounting 1(1-0)
BIS 356 - Methods of Teaching Business, Management, Marketing, and Technology 1(1-0)
BIS 451 - Coordination in Vocational Education 3(3-0)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)

Select one of the following concentrations:

Marketing Concentration
Marketing Education Concentration Courses I (6 hours)
MGT 312 - Introduction to Management 3(3-0)
MKT 220 - Introduction to Retail Merchandising 3(3-0)

Marketing Education Concentration Courses II (3 hours)
Select one of the following:
MKT 325 - Merchandising Management 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)

Marketing Education Concentration Courses III (3 hours)
Select one of the following:
BIS 492 - Practicum in Small Business 3(Spec)
ENT/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
ENT/MGT 419 - Entrepreneurship and Small Business Management 3(3-0)
Marketing Education Concentration
Requirements I (6 hours)
MKT 220 - Introduction to Retail Merchandising 3(3-0)
MKT 325 - Merchandising Management 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)

Note: You may count either MKT 325 or MKT 360, but not both.

Requirements II (3)
Select one of the following
BIS 492 - Practicum in Small Business 3(Spec)
ENT/MKT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
ENT/MGT 419 - Entrepreneurship and Small Business Management 3(3-0)

Office Education Concentration
Requirements I (6 hours)
BIS 280 - Office Information Processing 3(3-0)
BIS 370 - Office Management 3(3-0)

Requirements II (3)
Select one of the following
BIS 288 - Business Computer Graphics 3(3-0)
BIS 480 - Telecommunications Management 3(3-0)

Total: 41 semester hours
Economics (ECO)

For information, please contact the chairperson, 774-3870, 321 Sloan Hall

Why Study Economics?

Economics is the study of how societies satisfy their many material wants and needs. An understanding of economic topics such as supply and demand, consumption of goods and services, inflation and recession, is important to individuals and groups of people who are responsible for making decisions about resources. For example, individuals are concerned with maximizing the purchasing power of their income; businesses strive to efficiently use raw materials and labor in order to remain competitive in the global marketplace; governments want to know how political decisions will affect the economic actions of its residents. The study of economics is an excellent foundation for further study and/or a career in law, business, international affairs, public administration or education.

Economics at CMU

Our diversity of course offerings and majors reflect the broad range of topics in the discipline and wide range of interests of the faculty. Students can earn an economics major on three degree programs: the Bachelor of Arts (B.A.), Bachelor of Science (B.S.), and the Bachelor of Science in Business Administration (B.S.B.A.).

All economics students gain a set of quantitative and analytical skills that will serve them well in their careers and personal lives. Economics seeks to measure and predict human behavior so it is the most quantitative of the social sciences. Each major must acquire a proficiency in mathematics and statistics to be adequately prepared for the analytical work required in the discipline: problem-solving and decision-making. Every student will be challenged to identify problems, create alternative solutions and decide which option will best serve the goals of the decision-maker. Since an economics student acquires general training in decision-making skills, there are a wide variety of employment opportunities upon graduation and beyond. These general skills allow graduates to successfully compete in a constantly changing labor market during this information age.

Students with a liberal arts perspective may be attracted to economics because it is a major that is flexible in terms of topics and employment options. Some courses concentrate on decision-making within the firm and the impact of those decisions on the firm’s performance. Other courses take a broader social perspective. These may address the decision-making process in governmental organizations, the role of governments in society, or the impacts of government policies on individual citizens and private business. Economics also has much to add to public debates on social issues such as the role of women in the economy or pollution control.

Economics majors earning a degree in business administration would complete the same core requirements as other majors in the college. These requirements are designed to provide a specific set of technical and personal skills used in business and to provide an appreciation of the wider social environment in which businesses operate. Economics majors have a more restricted set of elective courses in this degree program. These courses provide technical skills (e.g., statistical methods and forecasting), greater depth in broader business issues (e.g., environmental policies and international institutions), or narrower applications of economics to business topics (e.g., government regulation and management decision-making).

The department is also committed to general education, and we offer a variety of courses in Groups III and IV of the University Program. Social institutions are created by people through a concerted decision-making process. The structure of these institutions influence individual behavior by offering opportunities and imposing constraints. Individual behavior, in turn, may support or undermine these social structures or actively seek to change the institutions. This interplay between individuals and social institutions provides the essential material for these general education courses. Women’s role in the economy (ECO 230), social change and economic ideas in history (ECO 110), comparisons of different economic systems around the globe (ECO 280 and 281), and the influence of social systems such as culture on individual economic behavior (ECO 222).

The Faculty


Majors

Economics Major

B.A.; B.S. degrees

Admission Requirements, Retention & Termination Standards

Up to six (6) hours may be taken as Credit/No Credit and counted toward the major.

Students earning the Economics major on the B.A. or B.S. degrees are strongly advised to complete the math requirement early in their academic program.

No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Required Economic Courses (15 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Microeconomics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ECO 306</td>
<td>Money and Banking</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ECO 365</td>
<td>Intermediate Microeconomic Theory</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ECO 370</td>
<td>Intermediate Macroeconomic Theory</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

Required Mathematics Courses (4 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 132</td>
<td>Calculus I</td>
<td>4(4-0)</td>
</tr>
<tr>
<td>MTH 217</td>
<td>Business Calculus</td>
<td>4(4-0)</td>
</tr>
</tbody>
</table>

Required Statistics Courses (3 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 285</td>
<td>Statistical Methods in Economics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>STA 282</td>
<td>Introduction to Statistics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>STA 382</td>
<td>Elementary Statistical Analysis</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>
Electives (15 hours)
To be selected in consultation with an economics department advisor, 12 hours must be numbered 300 or above.

Total: 37 semester hours
Note: MTH 130 is a prerequisite for STA 382.

Economics Major
B.S. in B.A. degree

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
A student must first be admitted to Tier 2 Full Admission to Professional Business Studies (see the index under Business Administration, College of, for page number).
Up to six (6) hours may be taken as Credit/No Credit and counted toward the major.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (9 hours)
ECO 306 - Money and Banking 3(3-0)
ECO 365 - Intermediate Microeconomic Theory 3(3-0)
ECO 370 - Intermediate Macroeconomic Theory 3(3-0)

Electives I (9 hours)
Select hours from the following:
ECO 301 - Environmental Economics 3(3-0)
ECO 360 - Public Economics 3(3-0)
ECO 372 - International Economics 3(3-0)
ECO 385 - Introduction to Econometrics 3(3-0)
ECO 410 - Government and Business 3(3-0)
ECO 414 - Labor Economics 3(3-0)
ECO 425 - The Economics of Industrial Organization 3(3-0)
ECO 440 - Managerial Economics 3(3-0)
ECO 532 - Economic Forecasting 3(3-0)

Electives II (6 hours)
Economics courses to be selected in consultation with an economics department advisor. The courses will include: 3 hours numbered 200 or above, and 3 hours numbered 300 and above.

Total: 33 semester hours

Minors

Economics Minor
B.A.; B.A.A.; B.S. degrees

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
To sign a minor in Economics: See an advisor in the Department of Economics and bring along a copy of your signed major.
Up to six (6) hours may be taken as Credit/No Credit and counted toward the minor.
No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Required Courses (6 hours)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)

Electives (15 hours)
Economics courses to be selected in consultation with an economics department advisor, 9 of which must be numbered 300 or above.

Total: 21 semester hours

Law and Economics Major
B.A.; B.S. degrees

This major is listed in the College of Business Administration section. See the index for the page number.

Law and Economics Major
B.S. in B.A. degree

This major is listed in the College of Business Administration section. See the index for the page number.
Why Study Finance? Why Study Law?
The major problem underlying the study of Finance is the lack of enough money to meet all needs. Finance is the study of money management, the acquiring of funds (cash) and the directing of these funds to meet particular objectives. Finance, then, is the cornerstone of money decisions, whether in investing of client funds, business funds, or banking. Courses in law provide a foundation for law-related career objectives. Business Law and Regulation courses explore the basis for business regulation and the Legal Studies minor explores the principles of jurisprudence.

Finance and Law at CMU
The Department of Finance and Law at CMU offers majors in Finance, Personal Financial Planning, and Real Estate Development & Finance, and minors in Legal Studies, Finance, and Real Estate Development & Finance. The Finance major is the study of the principles of financial management and financial institutions. The Finance major incorporates principles of investments and portfolio management, but focuses upon meeting the financial objectives of modern corporations. The Personal Financial Planning major is the study of financial principles relating to personal financial objectives and the techniques of achieving personal financial objectives. The Legal Studies minor contains courses providing instruction to improve the understanding of the operations of law, its function, capabilities, and limitations. The Finance and Law Department and the Economics Department offer an interdepartmental major in Law and Economics.

Majors
Majors in this department are available only to students pursuing the Bachelor of Science in Business Administration degree. At least eighteen credit hours of finance coursework must be taken at CMU, and FIN 499, required in the Finance major, must be taken at CMU. The only course that may be taken credit/no credit is the internship in Finance.

The Faculty

Majors
Finance Major
B.S. in B.A. degree
The Finance Major prepares students for careers in banking, corporate finance, and investments.

Admission Requirements, Retention & Termination Standards
To sign a major in Finance:
See an advisor in the Department of Finance and Law. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

At least eighteen hours of Finance coursework must be taken at CMU. FIN 499, on the Finance major, must be taken at CMU. Only FIN 490 may be taken as Credit/No Credit and counted toward the major.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (21 hours)
FIN 315 - Principles of Investments 3(3-0)
FIN 425 - Options and Futures 3(3-0)
FIN 442 - Intermediate Financial Management 3(3-0)
FIN 448 - Fundamental Financial Analysis 3(3-0)
FIN 573 - International Finance 3(3-0)
FIN 472 - Money and Capital Markets 3(3-0)
FIN 499 - Advanced Financial Management 3(3-0)

Electives (6 hours)
Select hours from the following:
ACC 301 - Intermediate Accounting I 3(3-0)
ACC 302 - Intermediate Accounting II 3(3-0)
ACC 311 - Federal Income Taxation I 3(3-0)
ACC 321 - Managerial Cost Accounting 3(3-0)
FIN 335 - Real Estate Principles 3(3-0)

Total: 36 semester hours
Personal Financial Planning Major  
*B.S. in B.A. degree*  
The Personal Financial Planning major prepares students for a career in personal financial planning and personal financial consulting.

**Admission Requirements, Retention & Termination Standards**  
To sign a major in Personal Financial Planning, see an advisor in the Department of Finance and Law. To register for most of the courses on the major, students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

At least eighteen hours of Finance coursework must be taken at CMU. Only FIN 490 may be taken as Credit/No Credit and counted toward the major.

**Additional Common Body of Knowledge in Business Administration Courses (9 hours)**  
BUS 100 - Essential Business Skills 3(3-0)  
BUS 300 - Applied Business Statistics 3(3-0)  
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

**Required Courses (21 hours)**  
ACC 311 - Federal Income Taxation I 3(3-0)  
FIN 307 - Fundamentals of Personal Financial Planning 3(3-0)  
FIN 315 - Principles of Investments 3(3-0)  
FIN 317 - Insurance Planning 3(3-0)  
FIN 347 - Retirement Planning 3(3-0)  
FIN 445 - Personal Estate Planning 3(3-0)  
FIN 447 - Cases in Personal Financial Planning 3(3-0)

**Electives (6 hours)**  
Select 2 courses from the following:  
FIN 335 - Real Estate Principles 3(3-0)  
FIN 425 - Options and Futures 3(3-0)  
FIN 442 - Intermediate Financial Management 3(3-0)  
FIN 455 - Portfolio Management 3(3-0)  
FIN 472 - Money and Capital Markets 3(3-0)  
FIN 482 - Working Capital Management 3(3-0)  
FIN 490 - Internship in Finance 3(3-0)  
FIN 573 - International Finance 3(3-0)  
MKT 340 - Personal Selling 3(3-0)

**Total:** 36 semester hours

**Real Estate: Development and Finance Major**  
*B.S. in B.A. degree*  

**Admission Requirements, Retention & Termination Standards**  
To sign a major in Real Estate: Development and Finance, see the Real Estate program advisor. To register for most of the courses on the major, students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

At least eighteen hours of Finance coursework must be taken at CMU. Only FIN 490 may be taken as Credit/No Credit and counted toward the major.

**Additional Common Body of Knowledge in Business Administration Courses (9 hours)**  
BUS 100 - Essential Business Skills 3(3-0)  
BUS 300 - Applied Business Statistics 3(3-0)  
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

**Required Courses (21 hours)**  
BLR 330 - Real Estate Law 3(3-0)  
ECO 375 - Economics of Cities and Regions 3(3-0)  
FIN 335 - Real Estate Principles 3(3-0)  
FIN 336 - Real Estate Finance & Investments 3(3-0)  
FIN 337 - Real Estate Valuation & Appraisal 3(3-0)  
FIN 438 - Real Estate Development 3(3-0)  
FIN 490 - Internship in Finance 1-3(Spec)

**Electives (6 hours)**  
Select the courses below for 6 hours, or select one course below plus another 300 or 400 level course in Finance & Law or Accounting for 6 hours.  
FIN 315 - Principles of Investments 3(3-0)  
FIN 472 - Money and Capital Markets 3(3-0)

**Total:** 36 semester hours

**Interdepartmental Law and Economics Major**  
*B.A.; B.S. degrees*  
This major is listed in the College of Business Administration section. See the index for the page number.

**Finance Minor**  
*B.A.; B.A.A.; B.S.; B.F.A.; B.S. in B.A. degrees*  

**Admission Requirements, Retention & Termination Standards**  
To sign a minor in Finance: See an advisor in the Department of Finance and Law and bring along a copy of your signed major.

1. At least fifteen hours of finance coursework must be taken at CMU.
2. Credit/No Credit coursework will not count.
3. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted toward graduation unless the student is majoring in the College of Business Administration.

**Required Courses I (3 hours)**  
Select one of the following:  
ACC 201 - Concepts of Financial Accounting 3(3-0)  
ACC 250 - Introduction to Financial Accounting 3(3-0)

**Required Courses II (3 hours)**  
Select one of the following:  
ACC 202 - Concepts of Managerial Accounting 3(3-0)  
ACC 255 - Managerial Accounting & Decision Making 3(3-0)

**Required Courses III (3 hours)**  
Select one of the following:  
ECO 201 - Principles of Macroeconomics 3(3-0)  
ECO 204 - Principles of Macro- and Global Economics 3(3-0)

**Required Courses IV (3 hours)**  
Select one of the following:  
FIN 302 - Integrated Financial Analysis 3(3-0)  
FIN 332 - Managerial Finance 3(3-0)

**Electives (12 hours)**  
Select finance courses to be approved by a finance department advisor. At least 9 hours must be at the 300-level or above.

**Total:** 24 semester hours
Legal Studies Minor
B.A.; B.A.A.; B.F.A.; B.S. in B.A. degrees

The Legal Studies minor is designed for the student who will work in a business regulated by government or in a governmental unit which regulates business behavior. It will be of particular interest to students in business, history, economics, and political science.

Admission Requirements, Retention & Termination Standards
To sign a minor in Legal Studies: See an advisor in the Department of Finance and Law and bring along a copy of your signed major.

No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Required Courses I (3 hours)
Select one of the following:
- BLR 202 - Legal Environment of Business 3(3-0)
- BLR 235 - Business Law 3(3-0)

Required Courses II (3 hours)
BLR 302 - Law of Agreements 3(3-0)

Additional Requirements I (6 hours)
Two courses from the following:
- BLR 310 - Alternative Dispute Resolution in Business 3(3-0)
- HST 228 - American Business: A History 3(3-0)
- HUM 303 - Law and Society: Great Trials 3(3-0)
- PHL 118 - Moral Problems 3(3-0)
- PHL 140 - Introduction to Logic 3(3-0)
- PHL 318 - Business Ethics 3(3-0)

(Nota: only one course can be from PHL)

Additional Requirements II (3 hours)
One course from the following:
- BLR 222 - The Search for Racial Justice Through Law 3(3-0)
- BLR 365 - Native American Justice Through Law 3(3-0)

Additional Requirements III (3 hours)
One course from the following:
- BLR 410 - Regulatory Law 3(3-0)
- ECO 410 - Government and Business 3(3-0)
- PSC 320 - The American Legislative Process 3(3-0)
- PSC 522 - Regulatory Processes and Administrative Law 3(3-0)

Additional Requirements IV (3 hours)
One course from the following:
- BLR 328 - Employment Law 3(3-0)
- BLR 360 - Construction Law 3(3-0)
- BLR 491 - Independent Studies 1-6(Spec)
- BLR 521 - Environmental Law and Policy 3(3-0)
- BLR 597 - Special Topics 1-6(Spec)

Any other law-related course as approved by an advisor.

Total: 21 semester hours

Real Estate: Development and Finance Minor

The Real Estate Development & Finance minor is designed to provide students in various fields with a combination of skills and knowledge needed to be successful in a career related to real estate. The skills and knowledge derived from this program will enhance a student’s employability and marketability in many areas. It will be of particular interest to students in business, construction management, environmental and land use planning, and entrepreneurship.

Admission Requirements, Retention & Termination Standards
To sign a minor in Real Estate: Development & Finance see the Real Estate program advisor and bring along a copy of your signed major.

No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Required Courses I (3 hours)
Select one of the following:
- ACC 201 - Concepts of Financial Accounting 3(3-0)
- ACC 250 - Introduction to Financial Accounting 3(3-0)

Required Courses II (3 hours)
Select one of the following:
- ACC 202 - Concepts of Managerial Accounting 3(3-0)
- ACC 255 - Managerial Accounting & Decision Making 3(3-0)

Required Courses III (3 hours)
Select one of the following:
- ECO 202 - Principles of Microeconomics 3(3-0)
- ECO 203 - Microeconomic Principles for Business 3(3-0)

Required Courses IV (3 hours)
Select one of the following:
- FIN 302 - Integrated Financial Analysis 3(3-0)
- FIN 332 - Managerial Finance 3(3-0)

Required Courses V (6 hours)
Select one of the following:
- FIN 335 - Real Estate Principles 3(3-0)
- FIN 336 - Real Estate Finance & Investments 3(3-0)

Electives I (3 hours)
Select one of the following:
- BLR 330 - Real Estate Law 3(3-0)
- ECO 375 - Economics of Cities and Regions 3(3-0)
- FIN 337 - Real Estate Valuation & Appraisal 3(3-0)

Electives II (3 hours)
Chosen in consultation with Real Estate program advisor.

Total: 24 semester hours
Management (MGT)
For information, please contact the chairperson, 774-3193, 200 Smith Hall

Management is decision making with respect to the allocation of an organization's resources toward the achievement of specific objectives. Although management as a field of study is most often associated with business administration, its subject matter can be applied in a broad range of settings from the management of one's own personal resources to those of social, governmental, educational, health care, and religious organizations.

Why Study Management?
Management study is recommended for those individuals who desire the knowledge and skill to influence others and develop business processes that can positively influence organizational productivity. The principles of management can be effectively applied in a broad range of group, organizational, and societal settings. Students of management are trained to be decision makers, problem solvers, and leaders.

Management at CMU
A program of study in management can be pursued through completion of one of the five majors or through a minor which can be individually designed to complement the student’s interests. All programs emphasize development of analytical tools that assist in effective decision making and problem solving. A General Management major is available to those students who desire a broad base of knowledge and combines coursework in each management discipline. The Human Resource Management major provides the student with the knowledge and skills necessary to create, develop, and maintain a productive workforce. The International Business major was developed in response to today’s rapidly expanding global business community. A foreign language requirement and international experience are included in this program. The Operations Management major deals with all aspects of producing goods and services. The Purchasing and Supply Management major prepares students to identify global sources for supply, establish logistics and support systems, design vendor evaluation systems, and more. A Management minor is available for students who are pursuing a degree other than business administration yet wish to obtain a foundation in management principles and practices.

The Faculty

Majors

General Management Major
B.S. in B.A. degree

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
To sign a major in General Management:
See an advisor in the Department of Management. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
Courses taken on a Credit/No Credit basis are not accepted on management department majors.
At least fifteen (15) credit hours of the required and elective coursework of the major must be taken in the accredited AACSB Program at the CMU campus (Mt. Pleasant and Midland).
Students cannot major in both Management and Human Resource Management.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (21 hours)
FIN 442 - Intermediate Financial Management 3(3-0)
MGT 320 - Human Resource Management 3(3-0)
MGT 348 - Dynamics of Organizational Behavior 3(3-0)
MGT 355 - Communications: Managerial Applications 3(3-0)
MGT 365 - International Business 3(3-0)
MGT 490 - Internship in Management 1-6(Spec)
MKT 310 - Marketing Communications 3(3-0)

Electives (3 hours)
Any College of Business Administration course, 300 level or higher.

Total: 33 semester hours
Human Resources Management Major
B.S. in B.A. degree

**Admission Requirements, Retention & Termination Standards**

To sign a major in Human Resource Management:
1. See an advisor in the Department of Management. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
2. Courses taken on a Credit/No Credit basis are not accepted on management department majors.

At least fifteen (15) credit hours of the required and elective coursework of the major must be taken in the accredited AACSB Program at the CMU campus (Mt. Pleasant and Midland).

Students cannot major in both Management and Human Resource Management.

**Additional Common Body of Knowledge in Business Administration Courses (9 hours)**
- BUS 100 - Essential Business Skills 3(3-0)
- BUS 300 - Applied Business Statistics 3(3-0)
- MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

**Required Courses (18 hours)**
- MGT 320 - Human Resource Management 3(3-0)
- MGT 348 - Dynamics of Organizational Behavior 3(3-0)
- MGT 445 - Compensation Administration 3(3-0)
- MGT 446 - Industrial Relations 3(3-0)
- MGT 447 - Personnel Selection and Evaluation 3(3-0)
- MGT 484 - Human Resource Training and Development 3(3-0)

**Electives (3 hours)**
1. Select hours from the College of Business Administration approved by the major advisor.

**Total: 30 semester hours**

Operations Management Major
B.S. in B.A. degree

**Admission Requirements, Retention & Termination Standards**

To sign a major in Operations Management, see an advisor in the Department of Management. To register for most of the courses on the major, students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

Courses taken on a Credit/No Credit basis are not accepted on management department majors.

At least fifteen (15) credit hours of the required and elective coursework of the major must be taken in the accredited AACSB Program at the CMU campus (Mt. Pleasant and Midland).

**Additional Common Body of Knowledge in Business Administration Courses (9 hours)**
- BUS 100 - Essential Business Skills 3(3-0)
- BUS 300 - Applied Business Statistics 3(3-0)
- MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

**Required Courses (12 hours)**
- MGT 333 - Purchasing Management 3(3-0)
- MGT 335 - Introduction to Management Science 3(3-0)
- MGT 543 - Management and Control of Quality 3(3-0)
- MGT 545 - Operations Strategy 3(3-0)

**Elective Courses (9 hours)**
1. Select three of the following:
   - ACC 321 - Managerial Cost Accounting 3(3-0)
   - IET 375 - Robotics 3(2-2)
   - IET 524 - Technology and Environment 3(3-0)
   - IET 527 - Industrial Safety Management 3(3-0)
   - MGT 320 - Human Resource Management 3(3-0)

**Total: 21 semester hours**

Management Minor
B.A.; B.A.A.; B.F.A.; B.S. degrees

This minor is designed to provide sufficient flexibility to accommodate students with varying backgrounds and career objectives.

**Admission Requirements, Retention & Termination Standards**

To sign a minor in Management:
1. A minimum cumulative GPA of 2.5 based on completion of at least 56 credit hours is required.
2. The minor is available only to students pursuing majors outside the College of Business Administration. If you are pursuing a teaching degree you may not choose this minor.
3. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation.
4. Courses taken Credit/No Credit basis are not accepted on the management department minor.

**Required Courses (9 hours)**
- MGT 312 - Introduction to Management 3(3-0)
- MGT 320 - Human Resource Management 3(3-0)
- MGT 348 - Dynamics of Organizational Behavior 3(3-0)

**Elective Courses (12 hours)**
1. Six hours from the Department of Management as approved by the minor advisor.
2. Six hours from the College of Business Administration as approved by the minor advisor.

**Total: 21 semester hours**

Purchasing and Supply Management Major
B.S. in B.A. degree

This is an interdepartmental major. Please check the index for the page number.

International Business Major
B.S. in B.A. degree

Advisor: Assigned by the Department of Management (774-3193)

This is an interdepartmental major. Please check the index for the page number.
Marketing and Hospitality Services Administration (MKT, HSA, HOA)

Why Study Marketing and Hospitality Services Administration?

The study of marketing prepares you for a diverse number of career areas including marketing manager, marketing researcher, sales executive, retail manager, promotion manager, advertising executive or logistics manager. The field offers study of global and domestic markets and the customers who impact those markets.

The largest industry and one of the world’s fastest growing is that of travel and tourism. The hospitality services administration program prepares students for business management careers in the many segments of this industry, such as lodging, food service, gaming and travel/tourism.

Marketing and Hospitality Services Administration at CMU

The objective of the department is to provide undergraduate and graduate students with the quality education needed for success in professional and management positions. The department also offers required or elective courses for students specializing in other major areas who desire some related background in marketing or hospitality services. Students are prepared for business careers through coursework, internships, and student organizations. Behavioral and communication skills development, problem solving and analytical abilities, knowledge of organizational planning, directing, controlling, and advances in business trends, such as electronic commerce, are emphasized.

The undergraduate marketing program is designed to prepare the student to manage the marketing process within the firm and in the social, political, and economic environment. Opportunity is provided to obtain knowledge of specialized fields through career preparation for positions in areas such as advertising and promotion, marketing management, marketing research, logistics, retailing and distribution, sales and sales management, and other positions leading to careers in management.

The multifaceted hospitality industry includes lodging, food services, gaming, and tourist-related businesses. The HSA program goal is to provide undergraduate students with a sound business background and a specific orientation toward the management of lodging operations, restaurants, clubs, casinos, and tourism. Coursework includes accounting, finance, management, marketing, and facility operations as they relate to the hospitality industries. Students also gain practical experience via internships.

The Faculty


Majors

Majors in this department are available only to students pursuing the Bachelor of Science in Business Administration degree. Courses taken on a Credit/No Credit basis are not accepted on the Marketing major or minor.

Hospitality Services Administration Major

B.S. in B.A. degree

Students may elect to study either of the two concentrations.

Admission Requirements, Retention & Termination Standards

To sign a major in Hospitality Services Administration:

See an advisor in the Department of Marketing and Hospitality Services Administration. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.

Credit/No Credit coursework will not count on any major within the Department of Marketing and Hospitality Services Administration.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)

BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone - Strategic Management 3(3-0)

Select one of the following concentrations:

Hospitality Services Concentration:

Core Courses (12 hours)
HSA 240 - Introduction to Hospitality Services Administration 3(3-0)
HSA 350 - Lodging Operations 3(3-0)
HSA 447 - Financial Management in the Hospitality Service Sector 3(3-0)
HSA 546 - Management in the Hospitality Service Sector 3(3-0)

Required Courses (7 hours)
HEV 160 - Introduction to Foods 4(2-4)
HSA 490 - Hospitality Internship 3(Spec)

Electives (8-9 hours)

Select from the following with advisor approval:
HEV 363 - Food Safety and Sanitation 1(1-0)
HEV 365 - Quantity Food Production 2(2-0)
HEV 366 - Quantity Food Production Laboratory 2(0-4)
HSA 210/MGT 210 - Effective Supervision: Principles and Practices 3(3-0)
HSA 341/MKT 341 - Services Marketing 3(3-0)
HSA 342 - Hospitality Facilities 3(3-0)
HSA 343/RPL 343 - Tourism 3(3-0)
HSA 344 - Legal Aspects of Hospitality Services 3(3-0)
HSA 348 - Franchising 3(3-0)
HSA 390 - Field Studies in Hospitality Services Administration 3(3-0)
Gaming and Entertainment Management Concentration:

Core Courses (12 hours)
- HSA 240 - Introduction to Hospitality Services Administration 3(3-0)
- HSA 350 - Lodging Operations 3(3-0)
- HSA 447 - Financial Management in the Hospitality Service Sector 3(3-0)
- HSA 546 - Management in the Hospitality Service Sector 3(3-0)

Required Courses (13 hours)
- HSA 334 - Casino Operation and Management 3(3-0)
- HSA 399 - Protection of Casino Table Games 3(3-0)
- HSA 437 - Gaming Regulations and Control 3(3-0)
- HSA 491 - Independent Studies 1-6(Spec)

Electives (3 hours)
- Select one of the following:
  - HSA 426 - Accounting for the Hotel Casino 3(3-0)
  - HSA 436 - Mathematics of Casino Games 3(3-0)
  - HSA 439 - Seminars in Casino Management 3(3-0)
  - HSA 442 - Sociology of Gambling 3(3-0)

All HSA courses to be taken at UNLV in Las Vegas with arrangements made by CMU/HSA advisor. Actual UNLV courses carry HMD, TCA or FAB designators. Students must earn a C- or better to transfer UNLV courses to CMU.

Total: 36 - 37 semester hours

Logistics Management Major
B.S. in B.A. degree

The Logistics Management major is designed to prepare CMU College of Business Administration students for a career in the field of logistics. Logistics Management is concerned with the effective and efficient movement and storage of products from raw material source through production to the consumer. Attention is focused on the integration and management of several areas including: transportation, inventory, warehousing, packaging and materials handling, logistics information and customer service. As managers of logistics, graduates will be responsible for providing customers with the right product at the right place at the right time at an acceptable price. Students who complete this major will find a growing number of job opportunities in the areas listed above.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
To sign a major in Marketing:
- See an advisor in the Department of Marketing and Hospitality Services Administration. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
- Credit/No Credit coursework will not count on any major within the Department of Marketing and Hospitality Services Administration.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
- BUS 100 - Essential Business Skills 3(3-0)
- BUS 300 - Applied Business Statistics 3(3-0)
- MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Core Courses (18 hours)
- MGT 330 - Marketing Channels 3(3-0)
- MGT 450 - Marketing Research 3(3-0)
- MGT 465 - Supply Chain Management 3(3-0)

Electives (6 hours)
- Select two of the following:
  - ACC 300 - Corporate Financial Reporting and Reporting Analysis 3(3-0)
  - ACC 312 - Managerial Cost Accounting 3(3-0)
  - BIS 423 - Decision Support Systems 3(3-0)
  - FIN 442 - Intermediate Financial Management 3(3-0)
  - FIN 482 - Working Capital Management 3(3-0)
  - GEO 317 - Economic Geography 3(3-0)
  - GEO 320 - Population Geography 3(3-0)
  - MGT 446 - Industrial Relations 3(3-0)
  - MGT 510 - Marketing Communications 3(3-0)
  - MGT 520 - Retail Management 3(3-0)
  - MGT 540 - Personal Selling 3(3-0)
  - MGT 549 - Internship In Marketing/Logistics 3-6(Spec)
  - MGT 555 - Market and Sales Forecasting 3(3-0)
  - MGT 560 - International Marketing 3(3-0)

Total: 36 semester hours

Marketing Major
B.S. in B.A. degree

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
To sign a major in Marketing:
- See an advisor in the Department of Marketing and Hospitality Services Administration. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
- Credit/No Credit coursework will not count on any major within the Department of Marketing and Hospitality Services Administration.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
- BUS 100 - Essential Business Skills 3(3-0)
- BUS 300 - Applied Business Statistics 3(3-0)
- MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Core Courses (18 hours)
- MGT 305 - Buyer Behavior 3(3-0)
- MGT 310 - Marketing Communications 3(3-0)
- MGT 330 - Marketing Channels 3(3-0)
- MGT 450 - Marketing Research 3(3-0)
- MGT 490 - Internship In Marketing/Logistics 3-6(Spec)
- MGT 499 - Strategic Marketing Problems 3(3-0)

Electives (6 hours)
- Select two of the following:
  - MGT 475 - Advertising Media 3(3-0)
  - MGT 478 - Market Research 3(3-0)
  - MGT 480 - Modern Management 3(3-0)
  - MGT 490 - Internship In Marketing/Logistics 3-6(Spec)

Total: 33 semester hours

Students must complete the Planned Program (6 hours) approved by the MHSA faculty advisor OR must complete one of the following concentrations:

Concentrations (12 hours):
- A concentration in one of the areas of marketing designated below and approved by the MHSA faculty advisor.
Marketing Communications (12 hours):
JRN 350 - Public Relations Principles and Practices 3(3-0)
JRN 360 - Advertising Principles 3(3-0)
MKT 315 - Advertising Media 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)
MKT 410 - Advertising Management 3(3-0)
Note: May only select one of JRN 350 or JRN 360.
Total: 39 semester hours

Professional Sales (12 hours):
MKT 340 - Personal Selling 3(3-0)
MKT 420 - Advanced Selling and Negotiation 3(3-0)
MKT 440 - Sales Management 3(3-0)
MKT 460 - Organizational Selling 3(3-0)
Total: 39 semester hours

Retail Strategy (12 hours)
COM 361 - Interpersonal Communication 3(3-0)
HEV 256 - Fashion Merchandising 3(3-0)
JRN 360 - Advertising Principles 3(3-0)
MKT 320 - Retail Management 3(3-0)
MKT 325 - Merchandising Management 3(3-0)
MKT 425 - Retail Strategy 3(3-0)
Note: May only select one of JRN 360, COM 361, or HEV 256.
Total: 39 semester hours

Purchasing and Supply Management Major
B.S. in B.A. degree
This is an interdepartmental major. Please check the index for the page number.

Retail Management Major
B.S. in B.A. degree
Retailing is a competitive, complex, and fast-paced career. The Retail Management major emphasizes acquiring sound business and management skills that can be applied to a variety of retail operations. Potential careers include merchandise manager, buyer, small business owner, store manager, manufacturer's representative, and professional salesperson.

Admission Requirements, Retention & Termination Standards
To sign a major in Retail Management:
See an advisor in the Department of Marketing and Hospitality Services Administration. To register for most of the courses on the major students must be admitted to Professional Business Studies. Please see the bulletin for course prerequisites.
Credit/No Credit coursework will not count on any major within the Department of Marketing and Hospitality Services Administration.

Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 - Essential Business Skills 3(3-0)
BUS 300 - Applied Business Statistics 3(3-0)
MGT 499 - Integrated Capstone-Strategic Management 3(3-0)

Required Courses (21 hours)
MKT 220 - Introduction to Retail Merchandising 3(3-0)
MKT 320 - Retail Management 3(3-0)
MKT 325 - Merchandising Management 3(3-0)
MKT 330 - Marketing Channels 3(3-0)
MKT 422 - Cooperative/Internship in Retailing 3-6(Spec)
MKT 425 - Retail Strategy 3(3-0)
MKT 492 - Practicum In Small Business 3(Spec)

Electives (3 hours)
Select one of the following:
BIS 445 - Small Business Organization and Operation 3(3-0)
COM 361 - Interpersonal Communication 3(3-0)
HEV 356 - Visual Merchandising 3(3-0)
HEV 456 - Fashion Buying 3(2-2)
MKT 310 - Marketing Communications 3(3-0)
MKT 340 - Personal Selling 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)
Total: 33 semester hours

Minors
Courses taken on a Credit/No Credit basis are not accepted on Marketing/Hospitality department minors. No more than a total of 27 hours may be taken in the College of Business Administration and counted toward graduation unless the student is majoring in the College of Business Administration.

Advertising Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees
This is an interdepartmental minor. Please check the index for the page number.

Hospitality Services Administration Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees
The HSA minor is designed primarily for students who will work in a field closely allied with the hospitality services industry. Two such fields are commercial recreation and food service administration. This minor is not designed to prepare students for a career in hospitality services, but is designed to introduce the student to the field in a rigorous fashion. The student will also acquire an understanding of how hospitality services administration interacts with the students’ major field of study. Students should not expect the HSA minor to make them competitive with students whose majors are in hospitality services administration for managerial positions in the hospitality services industry.

Admission Requirements, Retention & Termination Standards
To sign a minor in Hospitality Services Administration:
See an advisor in the Department of Marketing and Hospitality Services Administration and bring along a copy of your signed major.
1. At least fifteen hours beyond their major requirements are required for business majors.
2. Transfer students must have completed one semester at CMU.
3. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Required Courses (9 hours)
ECO 201 - Principles of Macroeconomics 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)

Electives I (9 hours)
Select three of the following:
HSA 210 - Effective Supervision: Principles and Practices 3(3-0)
HSA 331 - Hospitality Industry Information Systems 3(3-0)
HSA 341 - Services Marketing 3(3-0)
HSA 342 - Hospitality Facilities 3(3-0)
HSA 343 - Tourism 3(3-0)
HSA 344 - Legal Aspects of Hospitality Services 3(3-0)
HSA 350 - Lodging Operations 3(3-0)
HSA 445 - Advanced Food and Beverage Systems Management 3(3-0)
HSA 447 - Financial Management in the Hospitality Service
Sector 3(3-0)
HSA 546 - Management in the Hospitality Service Sector 3(3-0)

Electives II (6 hours)
Select from the following (these electives may be used to fulfill prerequisites for HSA courses selected in consultation with an advisor from the following list. If electives are not required for use as prerequisites for HSA courses, other electives may be taken in consultation with the advisor.):
ACC 201 - Concepts of Financial Accounting 3(3-0)
ACC 202 - Concepts of Managerial Accounting 3(3-0)
BIS 221 - Computers In Business I 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
HEV 160 - Introduction to Foods 4(2-4)
HEV 365 - Quantity Food Production 2(2-0)
HEV 366 - Quantity Food Production Laboratory 2(0-4)
Total: 24 semester hours

Marketing Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees
The Minor in Marketing is designed for students who plan a career closely allied to marketing, but do not intend to work in marketing itself. Examples of such careers include broadcasting, commercial art, journalism, human environmental studies, or a related business area. The marketing minor provides an overview of the marketing process but does not deal with all of the analytical and managerial skills necessary for success in marketing. The student will be exposed to both the process of stimulating and satisfying demand through the marketing process. Students should not expect that the marketing minor will make them competitive with marketing majors for marketing positions in industry.

Admission Requirements, Retention & Termination Standards
To sign a minor in Marketing:
See an advisor in the Department of Marketing and Hospitality Services Administration and bring along a copy of your signed major.

1. At least fifteen hours beyond their major requirements are required for business majors.
2. At least 56 credit hours earned is required.
3. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.
4. Students with a signed major in Marketing (regardless of concentration) are not allowed to sign a minor in Professional Sales.

Required Courses I (3 hours)
MKT 305 - Buyer Behavior 3(3-0)

Required Courses II (3 hours)
Select one of the following:
ECO 202 - Principles of Microeconomics 3(3-0)
ECO 203 - Microeconomic Principles for Business 3(3-0)

Required Courses III (3 hours)
Select one of the following:
MKT 300 - Introduction to Marketing 3(3-0)
MKT 304 - Integrated Marketing Management 3(3-0)

Electives (12 hours)
Select four of the following:
MKT 310 - Marketing Communications 3(3-0)
MKT 320 - Retail Management 3(3-0)
MKT 325 - Merchandising Management 3(3-0)
MKT 330 - Marketing Channels 3(3-0)
MKT 340 - Personal Selling 3(3-0)
MKT 341/HSA 341 - Services Marketing 3(3-0)
MKT 350 - Marketing Analysis 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy 3(3-0)
MKT 410 - Advertising Management 3(3-0)
MKT 431 - Logistics Operations 3(3-0)
MKT 435 - Transportation 3(3-0)
MKT 440 - Sales Management 3(3-0)
MKT 445 - Business Marketing 3(3-0)
MKT 560 - International Marketing 3(3-0)
Total: 21 semester hours

Marketing Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees
The Minor in Marketing is designed for students who plan a career closely allied to marketing, but do not intend to work in marketing itself. Examples of such careers include broadcasting, commercial art, journalism, human environmental studies, or a related business area. The marketing minor provides an overview of the marketing process but does not deal with all of the analytical and managerial skills necessary for success in marketing. The student will be exposed to both the process of stimulating and satisfying demand through the marketing process. Students should not expect that the marketing minor will make them competitive with marketing majors for marketing positions in industry.

Admission Requirements, Retention & Termination Standards
To sign a minor in Marketing:
See an advisor in the Department of Marketing and Hospitality Services Administration and bring along a copy of your signed major.

1. At least fifteen hours beyond their major requirements are required for business majors.
2. Transfer students must have completed one semester at CMU.
3. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.
4. Students with a signed major in Marketing (regardless of concentration) are not allowed to sign a minor in Professional Sales.

Required Courses I (3 hours)
Select one of the following:
BIS 100 - Introduction to Business 3(3-0)
BUS 100 - Essential Business Skills 3(3-0)

Required Courses II (3 hours)
Select one of the following:
BIS 101 - Essential Business Communications Skills 3(3-0)
BIS 360 - Business Communication 3(3-0)

Required Courses III (3 hours)
Select one of the following:
MKT 300 - Introduction to Marketing 3(3-0)
MKT 304 - Integrated Marketing Management 3(3-0)

Required Courses IV (12 hours)
Select one of the following:
MKT 340 - Personal Selling 3(3-0)
MKT 420 - Advanced Selling and Negotiation 3(3-0)
MKT 440 - Sales Management 3(3-0)
MKT 460 - Organizational Selling 3(3-0)
Total: 21 semester hours
Retailing Minor

B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

The minor in retailing is designed for those students who either aspire to a retail-related field or will work closely with the field of retailing. Examples of programs at CMU for which this minor is relevant include: Fashion Merchandising, Commercial Recreation, and Sport Studies. The minor provides an overview of retailing and merchandising principles in a managerial framework. It does not provide the practical experience developed through the retailing internship or the integrating experience of retail strategy development. Students should expect to find these skills within the major. In addition, students should not expect that the Retailing Minor will make them competitive with students whose major is Retail Management for entry level managerial positions in the retail industry.

Admission Requirements, Retention & Termination Standards

To sign a minor in Retailing:

1. See an advisor in the Department of Marketing and Hospitality Services Administration.

2. At least fifteen hours beyond their major requirements are required for business majors.

2. No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.

Core Courses (6 hours)

ACC 201 - Concepts of Financial Accounting 3(3-0)
ACC 250 - Introduction to Financial Accounting 3(3-0)
MKT 220 - Introduction to Retail Merchandising 3(3-0)

Note: You may count either ACC 201 or ACC 250, not both.

Electives (15 hours)

Select five of the following

MKT 300 - Introduction to Marketing 3(3-0)
MKT 304 - Integrated Marketing Management 3(3-0)
MKT 310 - Marketing Communications 3(3-0)
MKT 320 - Retail Management 3(3-0)
MKT 325 - Merchandising Management 3(3-0)
MKT 330 - Marketing Channels 3(3-0)
MKT 360 - Electronic Commerce and Marketing Strategy

Note: You may count either MKT 300 or MKT 304, not both.

Total: 21 semester hours
Introduction

The College of Communication and Fine Arts is an active cultural center of the University. It consists of one school (Music), four departments (Art, Broadcast & Cinematic Arts, Journalism, and Communication and Dramatic Arts), and three interdisciplinary programs (Integrative Public Relations, Music Theatre, and Media Design, Production and Technology) with over 140 faculty. Whether you decide to pursue a degree in one of the arts or simply enjoy the benefits of University Theatre, the Art Gallery, WMHW/FM, News Central, or university bands and choirs, the College has much to offer to enrich every student’s life. With a constant flow of guest speakers and artists-in-residence, the College is a unique place to notice, to ponder, and to mirror the human condition. It is a place to learn to appreciate art and the diverse cultures that have produced it. Participation in musical and theatrical events, dance, broadcasting, newspaper production, and forensics and debating activities is encouraged and available to all students at Central Michigan University.

College Mission

The College of Communication and Fine Arts is founded on the premise that the 21st Century demands global citizens who possess a full understanding of the power, dynamics, and responsibility of human communication in all aspects and diversity via all the channels that modern technology provides.

The College is committed to:

- providing a learning environment which fosters creative engagement of students and faculty through curricular and cocurricular activities and recognition of research endeavors;
- empowering creative growth through active mentorship;
- promoting an appreciation of communication arts within the diverse cultures in which they exist;
- encouraging flexible and integrative thinking through curricular innovation including interdisciplinary studies;
- assisting every student in the process of finding his/her own voice via the written or spoken word, the musical note or the visual image;
- encouraging independent thinking and research;
- reaching out to the mid-Michigan community via exhibitions, forensics and debate, public presentations and information campaigns, theatrical and musical performances, dance, broadcasts, audio/visual recordings, and in print and online.

Areas of Study

Departmental

Each department, school, and interdisciplinary program offers a major and/or minor, many with a variety of concentrations. The primary fields of study within the College are:

- Art (Two-and Three-Dimensional Studio Areas, Graphic Design, Art History, Art Education)
- Broadcast and Cinematic Arts
- Journalism (Advertising, News Editorial, Photojournalism, Public Affairs, Public Relations)
- Music (Music Education, Performance & Applied Music)
- Communication and Dramatic Arts (Interpersonal and Public Communication, Organizational Communication, Theatre & Interpretation, Acting, Design Technology, Dance)
- Integrative Public Relations
- Media Design, Production, and Technology
- Music Theatre

See the Index of this Bulletin for more information on each of the above programs.

Programs for Education Degrees

The departments of Art and Communication and Dramatic Arts, as well as the School of Music offer majors and minors under the Bachelor of Science in Education degree. If you are interested in teacher certification, consult both the specific department in this Bulletin and the sections on teacher certification.

Professional Opportunities and Internships

Majors in the College are encouraged to participate in career-related experiences. These experiences may be gained through department-sponsored activities, university-wide productions, internships, and summer employment. See your major or minor advisor to develop a plan of study that balances your course load with extracurricular activities.

Student Organizations

The College of Communication and Fine Arts supports many student chapters of professional organizations, honor societies, and service clubs such as The National Broadcasting Society/Alpha Epsilon Rho, Public Relations Student Society of America, Society of Professional Journalists, Alpha Psi Omega, Delta Omicron, and the Student Art League. These organizations provide opportunities to understand the nature of a profession or the role of a professional society. Participation will help you prepare for a career and become better acquainted with other students, faculty, and working professionals. Students are encouraged to contact individual departments for further information.
Art (ART)
For information, please contact the chairperson, 774-3025, 132 Wightman Hall

Why Study Art?
The study of the visual arts helps students develop their artistic abilities, strengthen their analytic skills, and improve their interpretive capabilities. Art teaches creative problem solving, self-expression, and self-directed learning. Students in art courses are exposed to the rigors of scholarly inquiry, importance of creative endeavors, and necessity of synthesizing knowledge.

Art at CMU
The Department of Art offers a variety of courses which enable students to pursue individual interests. Courses in general education and complete degree programs for the elementary and secondary school teacher as well as courses and degree programs that prepare the student for professional art careers and advanced study in the visual arts are important parts of the curriculum.

The Faculty
Larry Burditt, Jesse Dominguez, Brian Elder, Lon Ferguson, Alice Gardner, Richard Gergel, Sharon House, Clark Most, Johanna Paas, Sally Rose, David Stairs, Greg Stahly, Margaret Ware, Al Wildey

Department Fees
The department provides various supplies and equipment but students are expected to purchase most of their personal art supplies. In the following courses, registration requires payment of special fees to cover the cost of materials or services supplied to students:
All Art Education - $15.00; All Ceramics - 25.00; All Design - 15.00; All Drawing - 15.00; All Drawing (figure) - 15.00; All Fiber Design - 15.00; All Painting - 15.00; All Photography - 35.00; All Printmaking - 25.00; All Sculpture - 25.00.

Majors

Art Major
B.F.A. degree

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
This degree program, which requires 78 hours in art, offers art majors a firm foundation in basic courses such as drawing, design, and art history. This foundation not only provides a strong base for all specialized studio areas, but also prepares students to qualify for advanced degree programs.

Students must complete ART 105, 115, 117, 118 and 122 before enrolling in any 300+ studio course. Students should seek advis ing assistance from the department upon arrival to the university and should select a major advisor in their area of concentration at the beginning of their junior year, once they have been accepted into the program.

Acceptance into the B.F.A. degree program in the Two-dimensional and Three-dimensional concentrations may be applied for when the student has completed 30 hours of art classes, including ART 105, 115, 117, 118, 122; two courses in art history; and three courses in their area of concentration.

BFA majors are required to earn a minimum grade of C in each Art curriculum course. Courses taken on a credit/no credit basis may not be counted toward fulfillment of requirements for the art major or minor.

Students seeking admission to the Graphic Design Concentration must, upon completion of ART 135 and ART 349, submit a portfolio. Admission is limited. Students who fail to be accepted are welcome to reapply the following semester.

In addition to the general curricula, the candidate for the B.F.A degree must complete the following requirements:

1. Sign B.F.A. degree with advisor in student's area of concentration. This professor serves as the student's Thesis Advisor.
2. Register with the B.F.A. Committee Chair upon acceptance to the program. The B.F.A. Committee will schedule the student's full faculty critiques.
3. Participate in full faculty critiques for three consecutive semesters before graduation.
4. Exhibit a cohesive thesis body of creative work and all responsibilities that are included in the exhibition.
5. Conduct a public artist's talk in support of thesis exhibition work.
6. Submit a final portfolio to the Art Department including a resume, artist's statement, visual documentation of thesis work, visual documentation list, transcription of artist's talk, and other supporting materials.

Core Courses I (15 hours)
Foundations
ART 105 - Drawing I 3(0-6)
ART 115 - Design I 3(0-6)
ART 117 - Introduction to Contemporary Issues in Art 3(3-0)
ART 118 - Design II 3(0-6)
ART 122 - Color and Composition 3(0-6)

Core Courses II (18 hours)
ART 140 - Photography I 3(0-6)
ART 185 - Introduction to Western Art, Part I 3(3-0)
ART 285 - Introduction to Western Art, Part II 3(3-0)
ART 318 - Aesthetics 3(3-0)
ART 385 - Art in the Twentieth Century 3(3-0)
ART 485 - Seminar in Contemporary Art 3(3-0)
Core Courses III (3 hours)
Select one of the following:
ART 205 - Drawing II 3(0-6)
ART 216 - Introduction to Figure Drawing 3(0-6)

Core Courses IV (3 hours)
Select one of the following:
ART 150 - Printmaking I 3(0-6)
ART 160 - Sculpture I 3(0-6)

Core Courses V (3 hours)
Select additional art history course selected from:
ART 319 - Art Criticism 3(3-0)
ART 341 - History of Photography 3(3-0)
ART 365 - Design: The Interface of Art and Industry 3(3-0)
ART 366 - Contemporary Design Issues 3(3-0)
ART 380 - Greek Art and Architecture 3(3-0)
ART 381 - Early Christian and Byzantine Art 3(3-0)
ART 382 - Women and Art 3(3-0)
ART 383 - Modern Architecture 3(3-0)
ART 384 - Arts of Non-European Traditions 3(3-0)
ART 386 - American Art from the Colonial Period to 1913 3(3-0)
ART 480 - Roman Art and Architecture 3(3-0)
ART 481 - Western Medieval Art 3(3-0)
ART 482 - Italian High Renaissance Art 3(3-0)
ART 483 - Nineteenth Century European Painting 3(3-0)
ART 486 - Independent Study in Art History 3-6(Spec)
ART 487 - Indigenous Arts of North America 3(3-0)
ART 586 - Seminar in Art History 3(3-0)

Select one of the following concentrations:

Two-Dimensional Concentration:
Required Courses (33 hours)
The Two-Dimensional Concentration includes the following emphases: Drawing, Painting, Printmaking, and Photography. Select hours in consultation with an advisor from the following:

ART 130 - Painting I 3(0-6)
ART 140 - Photography I 3(0-6)
ART 205 - Drawing II 3(0-6)
ART 216 - Introduction to Figure Drawing 3(0-6)
ART 230 - Painting II 3(0-6)
ART 239 - Digital Imaging I 3(0-6)
ART 240 - Photography II 3(0-6)
ART 250 - Printmaking II 3(0-6)
ART 305 - Drawing III 3(0-6)
ART 316 - Intermediate Figure Drawing 3(0-6)
ART 330 - Painting III 3(0-6)
ART 331 - Figure Painting 3(0-6)
ART 334 - Watercolor Painting 3(0-6)
ART 336 - Illustration 3(0-6)
ART 339 - Digital Imaging II 3(0-6)
ART 340 - Photography III 3(0-6)
ART 350 - Printmaking III 3(0-6)
ART 405 - Advanced Drawing 3(0-6)
ART 416 - Advanced Figure Drawing 3(0-6)
ART 430 - Painting IV 3(0-6)
ART 440 - Photography IV 3(0-6)
ART 450 - Printmaking IV 3(0-6)
ART 471 - BFA Exhibition 3(3-0)
ART 516 - Advanced Problems in Figure Drawing 3(0-6)
ART 530 - Painting V 3(0-6)
ART 540 - Photography V 3(0-6)
ART 542 - Photographic Illustration 3(0-6)
ART 543 - Alternative Photographic Processes 3(0-6)
ART 550 - Printmaking V 3(0-6)

Three-Dimensional Concentration:
Required Courses (33 hours)
The Three-Dimensional Concentration includes the following emphases: Fiber Design, Sculpture, and Ceramics. Select hours in consultation with an advisor from the following:

ART 110 - Ceramics I: Introduction to Handbuilding 3(0-6)
ART 160 - Sculpture I 3(0-6)
ART 170 - Weaving/Fiber Design I 3(0-6)
ART 210 - Ceramics II: Introduction to Pottery 3(0-6)
ART 211 - Raku Workshop 3(0-6)
ART 260 - Making Multiples: Sculpture 3(0-6)
ART 270 - Fiber Design II 3(0-6)
ART 310 - Ceramics III: New Traditions in Ceramics 3(0-6)
ART 360 - Figurative Sculpture 3(0-6)
ART 361 - 4-D Sculpture 3(0-6)
ART 370 - Fiber Design III 3(0-6)
ART 371 - Papermaking 3(0-6)
ART 375 - Surface Design on Fabric 3(0-6)
ART 410 - Ceramics IV 3(0-6)
ART 460 - Contemporary Bronze Casting 3-6(Spec)
ART 461 - Light Metals Sculpture 3(0-6)
ART 470 - Fiber Design IV 3(0-6)
ART 471 - BFA Exhibition 3(3-0)
ART 510 - Advanced Ceramics 3(2(Spec)
ART 511 - Glaze Composition 3(0-6)
ART 512 - Kiln Construction 3(0-6)
ART 560 - Professional Development in Sculpture 3(0-6)
ART 570 - Fiber Design V 3(0-6)
ART 572 - Advanced Papermaking 3(0-6)
ART 575 - Surface Design on Fabric II 3(0-6)

Graphic Design Concentration:
Required Courses (33 hours)
Select hours in consultation with an advisor from the following:

ART 135 - Introduction to Graphic Design 3(0-6)
ART 235 - Logo and Identity Design 3(0-6)
ART 239 - Digital Imaging I 3(0-6)
ART 335 - Design Bureau 3(0-6)
ART 349 - Typography 3(0-6)
ART 358 - Web Design I 3(0-6)
ART 363 - Design: The Interface of Art and Industry 3(3-0)
ART 435 - Professional Design Practices 3(0-6)
ART 436 - Graphic Design Internship 3(0-6)
ART 437 - Advanced Typography 3(0-6)
ART 438 - Motion Graphics 3(0-6)
ART 439 - Advanced Typographic Design 3(0-6)
ART 512 - Web Design II 3(06)
ART 472 - Graphic Design Capstone Experience 3(0-6)
ART 535 - Digital Multimedia for Designers 3(0-6)

Electives (3 hours)
Select in consultation with your major advisor.

Total: 78 semester hours

Visual Arts Education Major
B.S. in Ed. degree, Provisional Secondary Certification, Grades K-12

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
This art major consists of 51 semester hours arranged in consultation with a departmental advisor. This will certify the graduate to teach art, K-12. The student is required to make arrangements to have an elementary school experience during directed teaching. A minimum 2.7 GPA (B-) must be earned in all teaching majors. Courses taken on a credit/no credit basis may not be counted toward fulfillment of requirements for the art major or minor.

Required Courses (33 hours)
ART 105 - Drawing I 3(0-6)
ART 115 - Design I 3(0-6)
ART 118 - Design II 3(0-6)

(continued)
ART 150 - Printmaking I 3(0-6)  
ART 285 - Introduction to Western Art, Part II 3(3-0)  
ART 318 - Aesthetics 3(3-0)  
ART 343 - Art in the Elementary School Grades K-4 3(3-0)  
ART 344 - Art in the Middle School Grades 5-8 3(3-0)  
ART 346 - Secondary School Art and Mid-Tier Observation 3(2-2)  
ART 384 - Arts of Non-European Traditions 3(3-0)  
ART 446 - Visual Arts and Aesthetic Education 3(3-0)  
Electives I (3 hours)  
3 hours in art history or art criticism.  
Electives II (9 hours)  
A studio concentration of nine hours of advanced level coursework in one area of concentration.  
Electives III (6 hours)  
One course each in two studio areas for a total of six credit hours.  
Total: 51 semester hours  

Art Major  
B.A.A. degree  

Admission Requirements, Retention & Termination Standards  
This art major consists of 57 semester hours arranged in consultation with a department advisor. B.A.A. majors are required to earn a minimum grade of C in each Art curriculum course. Students must complete ART 105, 115, 117, 118, and 122 before enrolling in any 300-level studio course. Students should seek advising assistance from the department upon arrival at the university and should select a major advisor in their freshman year. Courses taken on a credit/no-credit basis may not be counted toward fulfillment of requirements for the art major or minor.  

Core Courses I (18 hours)  
Foundations  
ART 105 - Drawing I 3(0-6)  
ART 115 - Design I 3(3-0)  
ART 117 - Introduction to Contemporary Issues in Art 3(3-0)  
ART 118 - Design II 3(0-6)  
ART 122 - Color and Composition 3(0-6)  
ART 499 - Senior Seminar 3(3-0)  
Core Courses II (12 hours)  
Select additional art history courses from:  
ART 185 - Introduction to Western Art, Part I 3(3-0)  
ART 285 - Introduction to Western Art, Part II 3(3-0)  
ART 318 - Aesthetics 3(3-0)  
ART 319 - Art Criticism 3(3-0)  
ART 341 - History of Photography 3(3-0)  
ART 363 - Design: The Interface of Art and Industry 3(3-0)  
ART 366 - Contemporary Design Issues 3(3-0)  
ART 380 - Greek Art and Architecture 3(3-0)  
ART 381 - Early Christian and Byzantine Art 3(3-0)  
ART 382 - Women and Art 3(3-0)  
ART 383 - Modern Architecture 3(3-0)  
ART 384 - Arts of Non-European Traditions 3(3-0)  
ART 385 - Art in the Twentieth Century 3(3-0)  
ART 386 - American Art from the Colonial Period to 1913 3(3-0)  
ART 480 - Roman Art and Architecture 3(3-0)  
ART 481 - Western Medieval Art 3(3-0)  
ART 482 - Italian High Renaissance Art 3(3-0)  
ART 483 - Nineteenth Century European Painting 3(3-0)  
ART 485 - Seminar in Contemporary Art 3(3-0)  
ART 486 - Independent Study in Art History 3(3-0)  
ART 487 - Indigenous Arts of North America 3(3-0)  
ART 586 - Seminar in Art History 3(3-0)  

Note: You may choose either ART 318 or ART 319, but may not count both toward the major. You may choose ART 341, ART 363, or ART 366, but may count only one of these courses toward the major.  

Electives (6 hours)  
Selected in consultation with major advisor.  
Select one of the following concentrations:  

Two-Dimensional Concentration:  
Required Courses (21 hours)  
The Two-Dimensional Concentration includes the following emphases: Drawing, Painting, Printmaking, and Photography. Select courses in consultation with a major advisor from the following:  
ART 130 - Painting I 3(0-6)  
ART 140 - Photography I 3(3-0)  
ART 150 - Printmaking I 3(3-0)  
ART 205 - Drawing II 3(0-6)  
ART 216 - Introduction to Figure Drawing 3(0-6)  
ART 230 - Painting II 3(0-6)  
ART 239 - Digital Imaging I 3(0-6)  
ART 240 - Photography II 3(0-6)  
ART 250 - Printmaking II 3(0-6)  
ART 305 - Drawing III 3(0-6)  
ART 316 - Intermediate Figure Drawing 3(0-6)  
ART 330 - Painting III 3(0-6)  
ART 331 - Figure Painting 3(0-6)  
ART 334 - Watercolor Painting 3(0-6)  
ART 336 - Illustration 3(0-6)  
ART 339 - Digital Imaging II 3(0-6)  
ART 340 - Photography III 3(0-6)  
ART 350 - Printmaking III 3(0-6)  
ART 405 - Advanced Drawing 3(0-6)  
ART 416 - Advanced Figure Drawing 3(0-6)  
ART 430 - Painting IV 3(0-6)  
ART 440 - Photography IV 3(0-6)  
ART 450 - Printmaking IV 3(0-6)  
ART 516 - Advanced Problems in Figure Drawing 3(0-6)  
ART 530 - Painting V 3(0-6)  
ART 540 - Photography V 3(0-6)  
ART 542 - Photographic Illustration 3(0-6)  
ART 543 - Alternative Photographic Processes 3(0-6)  
ART 550 - Printmaking V 3(0-6)  

Three-Dimensional Concentration:  
Required Courses (21 hours)  
The Three-Dimensional Concentration includes the following emphases: Fiber Design, Sculpture, and Ceramics. Select courses in consultation with a major advisor from the following:  
ART 110 - Ceramics I: Introduction to Handbuilding 3(0-6)  
ART 160 - Sculpture I 3(0-6)  
ART 170 - Weaving/Fiber Design I 3(0-6)  
ART 210 - Ceramics II: Introduction to Pottery 3(0-6)  
ART 211 - Raku Workshop 3(0-6)  
ART 260 - Making Multiples: Sculpture 3(0-6)  
ART 270 - Fiber Design II 3(0-6)  
ART 310 - Ceramics III: New Traditions in Ceramics 3(0-6)  
ART 360 - Figurative Sculpture 3(0-6)  
ART 361 - 4-D Sculpture 3(0-6)  
ART 370 - Fiber Design III 3(0-6)  
ART 371 - Papermaking 3(0-6)  
ART 375 - Surface Design on Fabric 3(0-6)  
ART 410 - Ceramics IV 3(0-6)  
ART 460 - Contemporary Bronze Casting 3-6(Spec)  
ART 461 - Light Metals Sculpture 3(0-6)  
ART 470 - Fiber Design IV 3(0-6)  
ART 510 - Advanced Ceramics 3-2(Spec)  
ART 511 - Glaze Composition 3(0-6)  
ART 512 - Kiln Construction 3(0-6)  
ART 550 - Printmaking V 3(0-6)  
ART 570 - Fiber Design V 3(0-6)  
ART 572 - Advanced Papermaking 3(0-6)  
ART 575 - Surface Design on Fabric II 3(0-6)  
Total: 57 semester hours
Art Major

B.A.; B.S. degrees

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

B.A. Degree. This art major consists of 40 semester hours arranged in consultation with a department advisor. B.A. majors are required to earn a minimum grade of C in each Art curriculum course. Courses taken on a credit/no credit basis may not be counted toward fulfillment of requirements for the art major or minor.

B.S. Degree. This art major consists of 40 semester hours arranged in consultation with a department advisor. B.S. majors are required to earn a minimum grade of C in each Art curriculum course. Courses taken on a credit/no credit basis may not be counted toward fulfillment of requirements for the art major or minor.

Core Courses (22 hours)
ART 105 - Drawing I 3(0-6)
ART 115 - Design I 3(0-6)
ART 117 - Introduction to Contemporary Issues in Art 3(3-0)
ART 185 - Introduction to Western Art, Part I 3(3-0)
ART 118 - Design II 3(0-6)
ART 122 - Color and Composition 3(0-6)
ART 285 - Introduction to Western Art, Part II 3(3-0)
ART 498 - BA/BS Capstone Experience 1(1-0)

Select one of the following concentrations:

Two-Dimensional Concentration:

Required Courses (12 hours)
The Two-Dimensional Concentration includes the following emphases: Drawing, Painting, Printmaking, and Photography. Select courses in consultation with a major advisor from the following:

ART 130 - Painting I 3(0-6)
ART 140 - Photography I 3(0-6)
ART 150 - Printmaking I 3(0-6)
ART 205 - Drawing II 3(0-6)
ART 216 - Introduction to Figure Drawing 3(0-6)
ART 230 - Painting II 3(0-6)
ART 239 - Digital Imaging I 3(0-6)
ART 240 - Photography II 3(0-6)
ART 250 - Printmaking II 3(0-6)
ART 305 - Drawing III 3(0-6)
ART 316 - Intermediate Figure Drawing 3(0-6)
ART 330 - Painting III 3(0-6)
ART 331 - Figure Painting 3(0-6)
ART 334 - Watercolor Painting 3(0-6)
ART 339 - Digital Imaging II 3(0-6)
ART 340 - Photography III 3(0-6)
ART 350 - Printmaking III 3(0-6)
ART 405 - Advanced Drawing 3(0-6)
ART 416 - Advanced Figure Drawing 3(0-6)
ART 430 - Painting IV 3(0-6)
ART 440 - Photography IV 3(0-6)
ART 450 - Printmaking IV 3(0-6)
ART 516 - Advanced Problems in Figure Drawing 3(0-6)

Electives (6 hours)
Selected from any area in the three-dimensional concentration.

Three-Dimensional Concentration:

Required Courses (12 hours)
The Three-Dimensional Concentration includes the following emphases: Fiber Design, Sculpture, and Ceramics. Select courses in consultation with a major advisor from the following:

ART 110 - Ceramics I: Introduction to Handbuilding 3(0-6)
ART 160 - Sculpture I 3(0-6)
ART 170 - Weaving/Fiber Design I 3(0-6)

Total: 21 semester hours
Why Study Broadcast and Cinematic Arts?

Through classroom, laboratory and cocurricular experiences, the study of broadcast and cinematic arts offers students the opportunity to investigate the electronic and filmic mass media which so widely impact their professional and private lives. In addition to imparting career training, BCA classes provide the background and analytical skills needed by all educated people to understand the aesthetic and cultural impact on society of traditional and evolving media.

Broadcast and Cinematic Arts at CMU

The School of Broadcast and Cinematic Arts offers both theoretical and applied courses in electronic media production, performance, advertising, programming, sales, promotion, management, electronic journalism, and film criticism. These classes prepare students for a wide variety of challenging and stimulating careers in telecommunications companies, advertising or public relations agencies, Internet and broadband enterprises, as well as related multimedia industries. A separate curricular track is available to prepare students to teach media studies at the secondary school level.

As early as possible, a student seeking to major or minor in the school should consult the director in order to be assigned a faculty advisor who will aid in curricular planning and authorization. Specific program requirements are listed below. It is expected that each BCA major and minor will be involved every semester in one or more of the school’s cocurricular activities. These include WMHW-FM, Moore Hall TV, M2D2 (Moore Media Digital Design) News Central, The Film Society, and Moore Media Records. Students are also encouraged to participate in BCA chapters of the National Broadcasting Society and the Radio and Television News Directors Association.

The Faculty


Students granted competency by successfully completing the Oral English Competency Examination are further required to take one of the accepted substitutes for TAI 170 (other than COM 101) and achieve a grade of at least B in order to meet BCA competency.

Note: See also the individual majors and minors for specific information regarding that particular program of study.

Majors

Broadcast and Cinematic Arts Major

B.A.; B.A.A.; B.S. degrees

Students granted competency by successfully completing the Oral English Competency Examination are further required to take one of the accepted substitutes for TAI 170 (other than COM 101) and achieve a grade of at least B in order to meet BCA competency.

Note: See also the individual majors and minors for specific information regarding that particular program of study.

Additional Notes:

The minimum requirement for a major is 35 hours. BCA 288 and 300 do not count toward this minimum. All BCA majors and minors must earn a minimum grade of C in each core course required in the curriculum. At least 15 hours of coursework in the major must be taken at CMU. Only six hours of intern credit may count toward a major and toward graduation. Courses taken for credit/no credit do not count toward the major except for BCA 329. Only four hours of BCA 329 can count toward this major unless this major is on the B.F.A. degree.

A list of various career course sequences is available in the school office.
Required Courses (23 hours)
- BCA 210 - Survey of the Mass Media 4(4-0)
- BCA 222 - Audio Production 3(1-4)
- BCA 223 - Video Production 3(1-4)
- BCA 310 - Broadcast History and New Media Technology 3(3-0)
- BCA 311 - Broadcast and Cable Copywriting 3(3-0)
- BCA 499 - Senior Seminar 1(0-2)
- BCA 503 - Critiquing Mass Media 3(3-0)
- BCA 510 - Broadcast and Cable Law 3(3-0)

Electives (12 hours)
BCA course work to be selected in consultation with an advisor. Six of these 12 hours must be at the 400 or 500 level. BCA 490 and 529 do not fulfill this 400-500 requirement.

Total: 35 semester hours

Students following the B.A.A. degree: Three hours of electives from ART or MUS are also required and these three hours cannot be used to satisfy University Program requirements.

Broadcast and Cinematic Arts Major
B.F.A. degree

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

Additional Notes:
BCA students who possess a significant background in one or more of the fine arts may be eligible to pursue a Bachelor of Fine Arts. Interested students must present a portfolio demonstrating past fine arts success to the school's B.F.A. faculty advisor in order to apply for admission to this program.

The minimum requirement for the B.F.A. major is 70 hours. BCA 288 and 300 do not count toward this minimum. A grade of C or better must be earned in each of the required core classes. At least 15 hours of BCA courses must be taken at CMU. Courses taken for credit/no credit do not count toward the major except for BCA 329.

Required Courses I (26 hours)
- BCA 210 - Survey of the Mass Media 4(4-0)
- BCA 222 - Audio Production 3(1-4)
- BCA 223 - Video Production 3(1-4)
- BCA 310 - Broadcast History and New Media Technology 3(3-0)
- BCA 311 - Broadcast and Cable Copywriting 3(3-0)
- BCA 317 - Radio and TV Performance 3(2-2)
- BCA 499 - Senior Seminar 1(0-2)
- BCA 503 - Critiquing Mass Media 3(3-0)
- BCA 510 - Broadcast and Cable Law 3(3-0)

Required Courses II (7 hours)
Any combination of the following:
- BCA 329 - Practicum in Electronic Media 1-8(Spec)
- BCA 529 - Internship in Radio-TV-Film 2-6(Spec)

Other Requirements (25 hours)
- At least 25 hours in non-BCA fine arts courses which have been specified as fine arts by the appropriate academic departments. See the BCA B.F.A. advisor for details.

Electives (12 hours)
Select from the following:
- BCA 332 - Broadcasting and the Internet 3(2-2)
- BCA 342 - Field Audio Production 3(2-2)
- BCA 415 - Television Advertising Production 3(3-0)
- BCA 421 - Advanced Audio Production 3(2-2)
- BCA 422 - Intermediate Video Production 3(2-2)
- BCA 505 - Advanced Electronic Media Writing 3(3-0)
- BCA 512 - Broadcast and Cable Promotion 3(3-0)
- BCA 517 - Advanced Audio and Video Performance 3(2-2)
- BCA 519 - Electronic Media Programming 3(2-2)
- BCA 520 - Special Topics in Mass Media 1-9(Spec)

Broadcast and Cinematic Arts Major

Program for Speech Teaching Certification with broadcasting focus (B.S. in Ed. degree)
This major is offered in cooperation with the Department of Communication and Dramatic Arts, and is advised by BCA faculty.

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

Additional Notes:
- The minimum requirement for this major is 44 hours. BCA 288 and 300 do not count toward this minimum. A grade of B or better must be earned in each of the required core classes. At least 15 hours of BCA courses must be taken at CMU. Only six hours of intern credit (BCA 529) can count toward the major and toward graduation. Courses taken for credit/no credit do not count toward the major except for BCA 329. The student must complete at least 33 hours of the major, including COM 492 and COM 493, prior to student teaching.

Required Courses (20 hours)
- BCA 210 - Survey of the Mass Media 4(4-0)
- BCA 222 - Audio Production 3(1-4)
- BCA 223 - Video Production 3(1-4)
- BCA 311 - Broadcast and Cable Copywriting 3(3-0)
- BCA 499 - Senior Seminar 1(0-2)
- BCA 503 - Critiquing Mass Media 3(3-0)
- BCA 510 - Broadcast and Cable Law 3(3-0)

Other Requirements I (14 hours)
- COM 251 - Foundations of Communication Theory 3(3-0)
- COM 267 - Introduction to Debate 3(3-0)
- COM 492 - Speech Methods in Secondary School 4(4-0)
- COM 493 - Field Experience in Speech Education 1(Spec)
- TAI 182 - Acting I 3(3-0)

Other Requirements II (3-4 hours)
Select one of the following:
- COM 353 - Small Group Communication 3(3-0)
- TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
- TAI 177 - Stagecraft and Stage Lighting 4(4-0)

Electives (7 hours)
- Three of these seven hours must be at the 400 or 500 level. BCA 490 and 529 do not fulfill this requirement.

Total: 44-45 semester hours

Integrative Public Relations Major
This is an interdisciplinary major. Please check the index for the page number.
Minors

Broadcast and Cinematic Arts Minor
B.A.; B.A.A.; B.F.A.; B.S. degrees

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**
See information at the beginning of this section.

**Additional Notes:**
- At least 9 hours of coursework in the minor must be taken at CMU. Only three hours of intern credit (BCA 529) may count toward the minor. Courses taken for credit/no credit do not count toward the minor, except for BCA 329. Only two hours of BCA 329 can count toward the minor.

**Required Courses (17 hours)**
- BCA 210 - Survey of the Mass Media 4(4-0)
- BCA 222 - Audio Production 3(1-4)
- BCA 223 - Video Production 3(1-4)
- BCA 311 - Broadcast and Cable Copywriting 3(3-0)
- BCA 329 - Practicum in Electronic Media 1-8(Spec)
- BCA 503 - Critiquing Mass Media 3(3-0)

**Electives (5 hours)**
- Minimum of 5 additional hours of BCA coursework to be selected in consultation with an advisor. BCA 288 and 300 do not count toward this minimum.

**Total: 22 semester hours**

Broadcast and Cinematic Arts Minor
Available on B.S. in B.A. degree only

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**
See information at the beginning of this section.

**Additional Notes:**
- At least 9 hours of coursework in the minor must be taken at CMU. Only three hours of intern credit (BCA 529) may count toward the minor. Courses taken for credit/no credit do not count toward the minor, except for BCA 329. Only two hours of BCA 329 can count toward the minor.

**Required Courses I (14 hours)**
- BCA 210 - Survey of the Mass Media 4(4-0)
- BCA 222 - Audio Production 3(1-4)
- BCA 223 - Video Production 3(1-4)
- BCA 329 - Practicum in Electronic Media 1-8(Spec)
- BCA 510 - Broadcast and Cable Law 3(3-0)

**Required Courses II (3 hours)**
Select one of the following:
- BCA 516 - Broadcast and Cable Management 3(3-0)
- BCA 519 - Electronic Media Programming 3(2-2)

**Required Courses III (3 hours)**
Select one of the following:
- COM 264 - Organizational Communication 3(3-0)
- COM 353 - Small Group Communication 3(3-0)

**Electives (2 hours)**
- Additional hours of BCA coursework to be selected in consultation with an advisor. BCA 288 and 300 do not count toward this minimum.

**Total: 22 semester hours**

Notes: At least 9 hours of coursework in the minor must be taken at CMU. Only three hours of intern credit may count toward the minor. Courses taken for credit/no credit do not count toward the minor, except for BCA 329.

Cinema Studies Minor
B.S., B.A., B.A.A.

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**
- BCA 320 is a variable content course and can be taken if film-related, in consultation with program advisor.
- BCA 490 can be taken if film-related, in consultation with program advisor and approval of instructor.
- BCA 520 is a variable content course and can be taken if film-related, in consultation with program advisor and approval of instructor.
- No coursework on this minor can be double-counted toward a BCA major or minor except BCA 503.

**Required Courses (15 hours)**
- BCA 288 - History and Appreciation of the Cinema 3(2-2)
- BCA 503 - Critiquing Mass Media 3(3-0)
- BCA 525 - Film Genre Study 3-9(Spec)
- BCA 527 - Film Directors 3-9(Spec)
- BCA 528 - History and Analysis of Nonfiction Film 3(2-2)
- BCA 525 and BCA 527 are variable content courses and can be repeated once as electives for this minor program if content is not replicated.

**Electives (6 hours)**
- BCA 290 - French Film and Other Media 3(3-0)
- BCA 300 - African and African American Film 3(3-0)
- BCA 320 - Special Topics in Mass Media 1-9(Spec)
- BCA 490 - Independent Study 1-4(Spec)
- BCA 520 - Special Topics in Mass Media 1-9(Spec)
- BCA 525 - Film Genre Study 3-9(Spec)
- BCA 527 - Film Directors 3-9(Spec)
- BCA 566 - Hockey’s Cinematic Depictions 1(1-0)
- ENG 326 - The Literary Dimensions of Film 3(2-2)

**Total: 21 semester hours**
Communication and Dramatic Arts
(COM, TAI, DAN, IPC, SDA)
For information, please contact the CDA office, 774-3177, 333 Moore Hall

Why Study Communication and Dramatic Arts?
The ability to communicate well, crucial to all of our activities, is developed through informed and careful study in the disciplines of communication and dramatic arts. Among the many areas of study are: public speaking, intercultural communication, business and organizational communication, interpersonal and group communication, debate and persuasion, theatre performance (including dramatic, musical and narrative theatre), theatre design and technology, and various dance techniques and choreography.

Communication and Dramatic Arts at CMU
The Department of Communication and Dramatic Arts at CMU is a hybrid department comprised of two areas: (1) the Interpersonal and Public Communication Area (IPC) and (2) the Theatre, Interpretation, and Dance Area (TID). While each area has its own unique programs and courses of study that are cited below, together the areas comprise a department that can address the complex nature of oral communication and performance in its various forms.

The professional and academic goals for the Interpersonal and Public Communication Area are the following: (1) to generate an appreciation for and an ability to utilize communication theory appropriate to the students’ vocational aspirations and societal needs; (2) to encourage the development of communication skills that help students build and maintain a sense of self-worth, understanding, and self-confidence; (3) to explore the integration of communication theory and skills with other social-science disciplines; (4) to sensitize students to the variety of perspectives and perceptions of people from different backgrounds and cultures and show the role of communication in creating understanding; (5) to assist students in developing communication competencies that enhance self-directed learning and problem-solving ability; (6) to provide service for the public good; (7) to provide students with an opportunity to demonstrate communication skills in applied communication settings; (8) to provide quality education to update and refine the students’ knowledge in accordance with their developing needs; and (9) to contribute to the general advancement of knowledge by stimulating and supporting research efforts. For more information about Interpersonal and Public Communication programs, call the IPC Area Coordinator, Dr. Nancy Buerkel-Rothfuss, 989-774-3991.

The professional and academic goals for the Theatre, Interpretation, and Dance Area are the following: (1) to engage students in a disciplined exploration of the complex nature of the theatre arts, oral interpretation, and dance; (2) to generate an appreciation for and a scholarly inquiry into the theatre arts, oral interpretation, and dance in the broad context of the arts and humanities; (3) to develop specialized analytical and performance skills appropriate to the students’ vocational aspirations and societal needs; (4) to provide a cultural and artistic service to the academic and public communities through the production of selected theatre, oral interpretation, and dance performances and other projects; (5) to provide extensive laboratory experience in all phases of performance and production for theatre, oral interpretation, and dance; and (6) to contribute to the general advancement of knowledge by stimulating and supporting scholarly and creative-artistic research. For more information about Theatre, Interpretation, and Dance programs, call the TID Area Coordinator, Ms. Keeley Stanley-Bohn, 989-774-7676.

The Department of Communication and Dramatic Arts offers specialized majors and minors in Interpersonal and Public Communication and Theatre, Interpretation, and Dance. For those interested in teacher preparation, a Speech major and minor are offered at the secondary level. The major includes three possible concentrations: IPC, TAI, and Generalist. The department also participates in the interdisciplinary Language Arts program, which offers a major and a minor at the elementary teaching level, the interdisciplinary Integrative Public Relations program and the interdisciplinary Music Theatre program.

The faculty
Speech Education Major and Minors

Speech Major
B.S. in Ed. degree, Provisional Secondary Certification

Admission Requirements, Retention & Termination Standards
Any student in good academic standing at CMU may sign a major in Speech. Every student intending to major in speech must meet with an advisor to specify the course of study. A minimum 2.7 GPA (B-) must be earned in this major. Students must have completed at least 30 hours of the major program including COM 492 and COM 493, prior to student teaching. The major requires four hours of English as specified by the North Central Association.

Core Courses (33 hours)
- COM 251 - Foundations of Communication Theory 3(3-0)
- COM 267 - Introduction to Debate 3(3-0)
- COM 357 - Public Speaking 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)
- COM 369 - Communication in the Classroom 3(3-0)
- COM 492 - Speech Methods in Secondary School 4(4-0)
- COM 493 - Field Experience in Speech Education (Spec)
- TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
- TAI 177 - Stagecraft and Stage Lighting 4(4-0)
- TAI 182 - Acting I 3(3-0)
- TAI 481 - Directing 3(3-0)

4 hours of English as specified by the North Central Association.

Concentrations (8 hours):
In addition to the core requirements listed above, select one of the following concentrations in consultation with an advisor.

IPC Concentration
Required Courses I (3 hours)
- COM 353 - Small Group Communication 3(3-0)

Required Courses II (5 hours)
Select from the following:
- COM 269 - Practicum in Debate/Forensics 2-8(Spec)
- COM 367 - Nonverbal Communication 3(3-0)
- COM 464 - Communication Internship 1-6(Spec)
- COM 495 - Communication Facilitation 2-6(Spec)
- COM 562 - Family Communication 3(3-0)

Some courses have prerequisites or other requirements. Check the course descriptions.

TAI Concentration
Required Courses I (3 hours)
Select one of the following:
- TAI 175 - Appreciation of the Theatre 3(3-0)
- TAI 574 - History of Drama and Theatre I 3(3-0)
- TAI 575 - History of Drama and Theatre II 3(3-0)

Required Courses II (3 hours)
Select one of the following:
- TAI 371 - Readers Theatre 3(3-0)
- TAI 376 - Interpretation of Drama 3(3-0)
- TAI 570 - Oral Interpretation of Prose Fiction 3(3-0)
- TAI 571 - Oral Interpretation of Poetry 3(3-0)

Note: TAI 371, TAI 376, TAI 570, and TAI 571 have prerequisites or other requirements. See the course descriptions for more information.

Speech Minor
B.S. in Ed. degree, Provisional Secondary Certification

Required Courses (23 hours)
- COM 251 - Foundations of Communication Theory 3(3-0)
- COM 267 - Introduction to Debate 3(3-0)
- COM 357 - Public Speaking 3(3-0)
- COM 492 - Speech Methods in Secondary School 4(4-0)
- TAI 177 - Stagecraft and Stage Lighting 4(4-0)
- TAI 182 - Acting I 3(3-0)
- TAI 481 - Directing 3(3-0)

Total: 23 semester hours

Note: TAI 481 has prerequisites or other requirements. Check the course description.
Communication Majors and Minors

Communication Major
B.A.; B.A.A.; B.S. degrees

**Admission Requirements, Retention & Termination Standards**

Any student in good academic standing at CMU may sign a major in Communication. Every student intending to major in Communication must meet with an advisor to specify the course of study. A minimum 2.0 GPA (C) must be earned in the major. A minimum grade of (C) must be earned in COM 251 and COM 301.

Select one of the following concentrations:

**Organizational Communication Concentration**

Required Courses I (27 hours)
- COM 251 - Foundations of Communication Theory 3(3-0)
- COM 264 - Organizational Communication 3(3-0)
- COM 301 - Survey of Research in Communication 3(3-0)
- COM 353 - Small Group Communication 3(3-0)
- COM 357 - Public Speaking 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)
- COM 364 - Communication in the Professional Environment 3(3-0)
- COM 401 - Capstone in Communication 3(3-0)
- COM 461 - Communication in Leadership 3(3-0)

Required Courses II (3 hours)
Select one of the following:
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 565 - Communication Training in Organizations 3(3-0)

Electives (9 hours)
Select hours in COM in consultation with the major advisor, at least 3 of these at the 500 level. (No more than 6 hours from COM 464, 490, and 495 may count toward the major in COM.

**Interpersonal Communication Concentration**

Required Courses (30 hours)
- COM 251 - Foundations of Communication Theory 3(3-0)
- COM 264 - Organizational Communication 3(3-0)
- COM 353 - Small Group Communication 3(3-0)
- COM 357 - Public Speaking 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)
- COM 363 - Principles and Types of Interviewing 3(3-0)
- COM 367 - Nonverbal Communication 3(3-0)
- COM 401 - Capstone in Communication 3(3-0)
- COM 468 - Advanced Interpersonal Communication 3(3-0)
- COM 562 - Family Communication 3(3-0)

Electives (9 hours)
Select hours in COM in consultation with the major advisor, at least 3 of these at the 500 level. (No more than 6 hours from COM 464, 490, and 495 may count toward the major in COM.

Total: 39 semester hours

Communication Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

**Required Courses (15 hours)**
- COM 251 - Foundations of Communication Theory 3(3-0)
- COM 301 - Survey of Research in Communication 3(3-0)
- COM 353 - Small Group Communication 3(3-0)
- COM 357 - Public Speaking 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)

Electives (9 hours)
Select additional hours of COM in consultation with an advisor, at least 3 of which must be at the 400 or 500 level. (No more than 6 hours from COM 464, 490, and 495 may count toward the minor.)

Total: 24 semester hours

Theatre and Interpretation Majors and Minors

**TAI Major**
B.A.; B.S. degrees

**Admission Requirements, Retention & Termination Standards**

Any student in good academic standing at CMU may sign a major in Theatre and Interpretation. Every student intending to major in Theatre and Interpretation must meet with an advisor to specify the course of study. A minimum 2.0 GPA (C) must be earned in the major.

**Core Courses (31 hours)**
- TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
- TAI 177 - Stagecraft and Stage Lighting 4(4-0)
- TAI 182 - Acting I 3(3-0)
- TAI 278 - Stage Makeup 3(2-2)
- TAI 481 - Directing 3(3-0)
- TAI 499 - Senior Capstone 3(3-0)
- TAI 574 - History of Drama and Theatre I 3(3-0)
- TAI 575 - History of Drama and Theatre II 3(3-0)
- TAI 580 - Dramatic Theory and Criticism 3(3-0)

In addition, take 3 studio courses in 3 different areas.

**Required Courses (12 hours)**
Select hours within the department in consultation with an advisor for the following concentrations:

- Acting Concentration
- Interpretation Concentration
- Design Technology Concentration
- Generalist Concentration

Total: 43 semester hours

**TAI Minor**
B.A.; B.S.; B.A.A. degrees

**Required Courses (25 hours)**
- TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
- TAI 177 - Stagecraft and Stage Lighting 4(4-0)
- TAI 182 - Acting I 3(3-0)
- TAI 278 - Stage Makeup 3(2-2)
- TAI 481 - Directing 3(3-0)
- TAI 574 - History of Drama and Theatre I 3(3-0)
- TAI 575 - History of Drama and Theatre II 3(3-0)
- TAI 580 - Dramatic Theory and Criticism 3(3-0)

Total: 25 semester hours
TAI Major
B.F.A. degree

The curriculum leading to the Bachelor of Fine Arts degree is designed for individuals who qualify for and are admitted to intensive specialization in Acting/Directing, Design/Technical Theatre, or Oral Interpretation/Interpretative Theatre. Interested students must consult with the TID Area Coordinator. Transfer students who wish to enter the B.F.A. program should consult with the TID Area Coordinator.

Admission Requirements, Retention & Termination Standards
Any student in good academic standing at CMU may sign a major in Theatre and Interpretation. Every student intending to major in Theatre and Interpretation must meet with an advisor to specify the course of study. A minimum 2.0 GPA (C) must be earned in the major.

The student is also required to demonstrate proficiency in the field of specialization prior to graduation.

Required Courses (45 hours)
Select 45 hours in TAI courses in consultation with the TID Area Coordinator.

Electives (25 hours)
Select 25 hours of elective cognate fine arts courses in consultation with the TID Area Coordinator.

Total: 70 semester hours

Integrative Public Relations Major
This is an interdisciplinary major. Please check the index for the page number.

Music Theatre Major
B.F.A. Degree

This is an interdisciplinary major. Please check the index for the page number.

Dance Minor
B.A.; B.S.; B.S. in Ed., Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
Students electing a dance minor must consult an advisor prior to beginning their program. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Core Courses I (10 hours)
DAN 230 - Movement-Rhythmic Form and Structure 3(3-0)
DAN 232 - Dance Composition I 2(2-0)
DAN 530 - History of Dance 3(3-0)
PED 138 - Hi-Lo Aerobics 2(Spec)

Core Courses II (2 hours)
DAN 133 - Dance Technique I 2(1-2)
DAN 233 - Dance Technique II 2(1-2)

Select one of the following based on degree:

for Teaching Degree:
Required Courses (7 hours)
DAN 231 - Fundamental Movement 2(2-0)
DAN 334 - Teaching of Folk, Square, and Social Dance 3(3-0)
DAN 435 - Methods of Creative Movement 2(Spec)

Electives (5 hours)
Select additional hours in DAN.

for Non-Teaching Degree:
Required Courses I (6 hours)
DAN 134 - Recreational Dance I 1(Spec)
DAN 138 - Jazz I 2(Spec)
DAN 430 - Dance Production 3(2-2)

Required Courses II (2 hours)
Select one of the following:
DAN 136 - Ballet Technique I 2(Spec)
DAN 236 - Ballet II 2(Spec)

Required Courses III (2 hours)
Select one of the following:
DAN 137 - Tap I 2(Spec)
DAN 237 - Tap II 1(Spec)

Electives (2 hours)
Select additional hours in DAN.

Total: 24 semester hours
Why Study Journalism?

Journalism and mass communications transmit and interpret culture and bind society together, making them among the most vital forces in the maintenance of any society and fundamental to democratic government and a free society. The mission of journalism and mass communications is mainly to communicate information and ideas that enable people to fulfill their responsibilities as citizens in a diverse, democratic nation and a free society. Because freedom of expression and freedom of the press are indispensable to a free society, professional programs like ours encourage dissent, inquiry and free expression as guaranteed by the First Amendment.

Careers in the exciting and expanding field of mass communications begin with journalism studies. CMU journalism graduates find jobs in news reporting, magazine and feature writing, photojournalism, public relations, and advertising. Journalism education also benefits students going into law, politics, consulting, health education, business, and environmental and sports studies and many other fields that require information gathering, precision writing and visual communication skills.

Journalism at CMU

CMU’s journalism program is accredited by the Accrediting Council for Education in Journalism and Mass Communications, a distinction held by only one other Michigan university. Our program balances classroom theory with service learning and other structured hands-on experiences that help students develop the skills required for entry-level positions in the media.

Students may select one of four major concentrations: news editorial, photojournalism, advertising or public relations. However, all students enroll in a common set of courses that emphasize information gathering, processing and writing, visual communication skills and the philosophical framework of the profession, including the role of mass communications in contemporary society, the role of media in racial diversity and the legal context in which the industry operates.

In addition to the journalism major, the department offers an interdepartmental Integrative Public Relations major with the School of Broadcast and Cinematic Arts and the Department of Communication and Dramatic Arts. We also offer a journalism minor and two interdepartmental minors: Advertising with the Department of Marketing and Hospitality Services Administration, and Public Affairs with the Department of Political Science, and an interdisciplinary minor, Media Design, Production and Technology.

Students interested in one of these programs are advised to contact a journalism department advisor as early as possible, and meet with that advisor each semester before registering for classes. Majors and minors are also expected to be involved each semester in co-curricular activities: CMLife, the Society of Professional Journalists, the Public Relations Student Society of America, the Central Press Photographers Association, and the American Advertising Federation, also known as Ad Club.

Employers expect journalism graduates to have had at least one internship, an indicator that an applicant has the attitude and skills necessary to be successful in the workplace. The journalism department will help arrange internships that match your career interests and allow you to build a portfolio of your work.

The Faculty

Tim Boudreau, Carole Eberly, John K. Hartman, Dennis W. Jeffers, Jong Hyuk Lee, David London, Maria Marron, Ronald Marmarelli, Kent Miller, John A. Palen, Mark T. Ranzenberger, Alice A. Tait, James Wojcik, Jiafei Yin

Majors

Journalism Major
B.A.; B.S. degrees

A journalism major requires 39 hours of journalism course work. The last 18 hours of journalism course work leading to a journalism major should be taken within the journalism department of CMU. A grade of C or better is required in each course counted toward the major and an overall grade point average of 2.5 for all journalism courses counted toward the major. A maximum of 44 journalism credits can be applied to graduation. No more than three credits of journalism internship can be applied toward the major.

In order to graduate as a major in the Department of Journalism, a student must complete at least 80 semester hours of course work in departments other than journalism. Of those 80 semester hours, 65 must be in the liberal arts and sciences, which are listed under the University Program and area requirements for the B.A. and B.S. degrees. Each journalism major must consult with a journalism faculty advisor prior to registering for courses each semester to ensure orderly progress toward meeting these requirements.

Admission Requirements, Retention & Termination Standards

Students majoring in journalism must meet the criteria established by the Accrediting Council on Education in Journalism and Mass Communications. That means that they must take 80 semester credit hours of their degree work outside of the major, and of those 80 hours, 65 must be in the liberal arts and sciences. A grade of C or better is required in all courses counted toward the major, and an overall grade point average of 2.5 is required for all journalism courses counted toward the major.
Core Courses (24 hours)
JRN 101 - Mass Communications in Contemporary Society (3-3-0)
JRN 202 - Writing for the Mass Media (3-3-0)
JRN 203 - Information Gathering for the Mass Media (3-3-0)
JRN 220 - Basic Media Photography (3-3-0)
JRN 302 - Introduction to Graphics and Visual Communication (3-3-0)
JRN 380 - Racial Diversity: Mass Media’s Role (3-3-0)
JRN 404 - Law of Mass Communication (3-3-0)
JRN 500 - Current Issues in Mass Communication (3-3-0)

Select one of the following concentrations:

Advertising Concentration:
Required Courses (12 hours)
JRN 350 - Public Relations Principles and Practices (3-3-0)
JRN 360 - Advertising Principles (3-3-0)
JRN 365 - Advertising Media (3-3-0)
JRN 465 - Advertising Copy and Design (3-3-0)

News Editorial Concentration:
Required Courses (12 hours)
JRN 312 - Reporting (3-3-0)
JRN 315 - Editing (3-3-0)
JRN 430 - Magazine and Feature Writing (3-3-0)
JRN 516 - Public Affairs Reporting (3-3-0)

Photojournalism Concentration:
Required Courses I (9 hours)
JRN 320 - Photo Editing (3-3-0)
JRN 420 - Photography Studio Techniques (3-3-0)
JRN 422 - The Photographic Process (3-3-0)

Required Courses II (3 hours)
Select one of the following:
JRN 520 - Independent Study in Photography (3-3-0)
JRN 521 - Seminar in News Photography (3-3-0)

Public Relations Concentration:
Required Courses (12 hours)
JRN 350 - Public Relations Principles and Practices (3-3-0)
JRN 450 - Public Relations Writing (3-3-0)
JRN 551 - Case Studies in Public Relations (3-3-0)
JRN 556 - Public Relations Seminar (3-3-0)

Elective (3 hours)
An additional Journalism course, as approved by the advisor.

Total: 39 semester hours

Integrative Public Relations Major
This is an interdisciplinary major. Please check the index for the page number.

Minors

Journalism Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees
A journalism minor requires at least 21 hours of journalism course work. A grade of C or better is required in each course counted toward the minor.

Required Courses (15 hours)
JRN 101 - Mass Communications in Contemporary Society (3-3-0)
JRN 202 - Writing for the Mass Media (3-3-0)
JRN 302 - Introduction to Graphics and Visual Communication (3-3-0)
JRN 312 - Reporting (3-3-0)
JRN 315 - Editing (3-3-0)

Electives (6 hours)
An advanced journalism writing course (numbered 300 or above) as approved by the minor advisor OR JRN 220, Basic Media Photography. A journalism course in theory or principles as approved by the minor advisor.

Total: 21 semester hours

Advertising Minor
This is an interdepartmental minor. Please check the index for the page number.

Public Affairs Minor
This is an interdepartmental minor. Please check the index for the page number.

Media Design, Production, and Technology Minor
This is an interdisciplinary minor. Please check the index for the page number.
Why Study Music?

Music is a universal human phenomenon. It is one means by which human beings may understand the essence of their culture, and every culture on earth possesses some musical system. Through musical participation, humans are able to make connections with one another in ways which are impossible to achieve by any other means. When students study music, they come to know a dimension of “humanness” which is otherwise closed to them. In a society which increasingly focuses on passive participation, music study provides students with opportunities for active creative involvement. The student who sings or plays an instrument alone or as part of an ensemble is able to reach a part of himself or herself which cannot be discovered in any other way. The student who listens to the works of composers such as Bach or Mozart is communicating across centuries of time with some of the best thinking that the human mind has to offer. Without musical study, a student cannot completely understand what it means to be a human being.

Music Offerings at CMU

The School of Music provides offerings in four basic areas: curricular programs for students who aspire to careers in music; activities for all students who have an interest in music (all of the musical organizations in the School of Music are open to all students on campus, whether music majors or not); courses for students with a general interest in music; and cultural offerings in the form of recitals, concerts, and lectures, most of which are free of charge.

The School of Music offers majors on Bachelor of Music, Bachelor of Music Education, and Bachelor of Arts or Bachelor of Science degrees. Minors are available on the Bachelor of Arts and Bachelor of Science degrees.

The Faculty


Bachelor of Music Education

Completion of this degree will qualify a student for recommendation to the State Board for a Secondary Provisional Certificate which will permit the holder to teach music in grades K-12.

Admission Requirements, Retention & Termination Standards

Admission as a Music Major or Minor

Admission to all music majors and minors requires a successful performance audition and passage of a basic musicianship examination. If a student does not pass the basic musicianship examination, passage of the examination at a later date will fulfill the requirement. A student who has not been accepted into the Music Program may be denied access to music core courses. Further information concerning admission as a music major or minor (including audition dates, appropriate repertoire, and study guides for the basic musicianship examination) is available in the School of Music office, or online at http://www.mus.cmich.edu/.

Admission to Music Candidacy

Prior to enrolling in classes above 200 level, a student must apply to the School of Music Office for admission to Music Candidacy. Admission to this program will allow a student access to music study at the 300 level and above. Requirements for admission include signed authorizations appropriate to a student’s curriculum, passage of a 300 level performance examination on the appropriate instrument, and completion of MUS 101, 102, 103, 104, 147, 148, 201, 202, 203, 204, 211, 212, 247, and 248 with a grade of “C” or better. Tentative admission will be granted if it is clear from the application that it is possible to remove all deficiencies within one academic year. Such tentative admission will be reviewed at the end of that period and access to courses 300 level and above will be revoked if requirements remain unfulfilled. It is the student’s responsibility to document the fulfillment of all admission requirements. Applications for admission to Music Candidacy are available in the School of Music office.

Additional Requirements for Music Majors and Minors

Music major and minors on all degree programs must receive a grade of “C” or better in each required MUS course. Credit/No Credit grades are not acceptable on music majors and minors.

Music majors on degrees leading to teaching certification must have completed at least 15 hours of music courses at the 300 level or above including at least two semesters of 300 level applied study in order to student teach. In addition, these students must have a grade of “C+” or better in the following music methods courses in order to graduate: MUS 144, 146, 230, 244, 246, 280, 331, 333, 344, 381, 382, 433, 435, 531, 533, 534.

Requirements for Bachelor of Music Education

All students pursuing this degree should see the section on Admission to Teacher Education Programs.

In order to complete this degree a student must complete either the Instrumental or Choral option. These options require both a major and minor in music. Neither the majors nor the minors are available except on this degree and in the combination below. A minimum 2.7 GPA (B-) must be earned in all teaching majors and minors.
Instrumental Option

Major: Music Education

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the information at the beginning of this section.

Core Courses I (29 hours)
Music Theory, History, and Literature

• 7 semesters of MUS 097.
MUS 097 - Recital Attendance 0
MUS 101 - Theory I 3(3-0)
MUS 102 - Theory II 3(3-0)
MUS 103 - Sight Singing and Ear Training I 1(0-2)
MUS 104 - Sight Singing and Ear Training II 1(0-2)
MUS 109 - Introduction to Music Technology 1(1-1)
MUS 201 - Theory III 3(3-0)
MUS 202 - Theory IV 3(3-0)
MUS 203 - Sight Singing and Ear Training III 1(0-2)
MUS 204 - Sight Singing and Ear Training IV 1(0-2)
MUS 211 - Historical Survey of Music I 3(3-0)
MUS 212 - Historical Survey of Music II 3(3-0)
MUS 304 - Instrumentation and Scoring 3(2-2)
MUS 311 - Historical Survey of Music III 3(3-0)

Core Courses II (4 hours)
Music Education

MUS 230 - Introduction to Music Education 2(1-2)
MUS 333 - Music Education in the Elementary Grades 2(2-0)

Required Courses (7 hours)
Applied Study

• 4 semesters of MUS 151-179 (4 hours)
• 3 semesters of MUS 351-379 (3 hours)
• Solo performance (0 hours)
MUS 151 - Organ 1-12(Spec)
MUS 152 - Piano 1-12 (Spec)
MUS 153 - Violin and Viola 1-12(Spec)
MUS 155 - Violoncello 1-12(Spec)
MUS 157 - String Bass 1-12(Spec)
MUS 158 - Composition 1-4(Spec)
MUS 159 - Jazz Guitar 1-8(Spec)
MUS 161 - Flute 1-12(Spec)
MUS 163 - Oboe 1-12(Spec)
MUS 165 - Clarinet 1-12(Spec)
MUS 167 - Bassoon 1-12(Spec)
MUS 169 - Saxophone 1-12(Spec)
MUS 171 - Cornet or Trumpet 1-12(Spec)
MUS 173 - French Horn 1-12(Spec)
MUS 175 - Trombone 1-12(Spec)
MUS 177 - Euphonium 1-12(Spec)
MUS 178 - Tuba 1-12(Spec)
MUS 179 - Percussion 1-12(Spec)
MUS 351 - Organ 1-20(Spec)
MUS 352 - Piano 1-20(Spec)
MUS 353 - Violin and Viola 1-20(Spec)
MUS 355 - Violoncello 1-20(Spec)
MUS 357 - String Bass 1-20(Spec)
MUS 358 - Composition 2-8(Spec)
MUS 359 - Jazz Guitar 1-8(Spec)
MUS 360 - Harpsichord 1-8(Spec)
MUS 361 - Flute 1-20(Spec)
MUS 363 - Oboe 1-20(Spec)
MUS 365 - Clarinet 1-20(Spec)
MUS 367 - Bassoon 1-20(Spec)
MUS 369 - Saxophone 1-20(Spec)
MUS 371 - Cornet or Trumpet 1-20(Spec)
MUS 373 - French Horn 1-20(Spec)
MUS 375 - Trombone 1-20(Spec)
MUS 377 - Euphonium 1-20(Spec)
MUS 378 - Tuba 1-20(Spec)
MUS 379 - Percussion 1-20(Spec)

Note: All applied study used to fulfill these requirements must be on the same instrument.

Total: 40 semester hours

Minor: Instrumental

Required Courses I (16 hours)
Music Education

MUS 141 - Vocal Techniques I 1(0-2)
MUS 144 - Woodwind Techniques 2(0-4)
MUS 146 - Brass Techniques 2(0-4)
MUS 244 - Double Reed Techniques 1(0-2)
MUS 246 - String Techniques I 2(0-4)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 331 - Instrumental Organization 2(2-0)
MUS 344 - Percussion Techniques 2(0-4)
MUS 382 - Instrumental Conducting and Materials 2(0-4)

Required Courses II (8 hours)
Performance - Ensemble:

• 6-7 semesters of MUS 185 or MUS 186 (6-7 hours)
• 1-2 semesters of MUS 281, MUS 285, or MUS 286 (1-2 hours)
• If applied study on major is satisfied with MUS 161-179 and MUS 361-379, then a minimum of 1 semester of MUS 186, Marching Band section.

MUS 185 - Orchestra 1-8(Spec)
MUS 186 - Band 1-8(spec)
MUS 281 - Advanced Instrumental Assemble 1-8(Spec)
MUS 285 - Percussion Ensemble 1-8(Spec)
MUS 286 - Jazz Laboratory Band 1-8(Spec)

Required Courses III (0-4 hours)
Performance - Secondary Applied Study

Select one of the following options:

Option 1
If Applied Study requirement on major is satisfied with MUS 153-179 and MUS 353-379, then MUS 147, 148, 247, and 248 (4 hours) or passing piano proficiency (0 hours).
MUS 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(0-2)
MUS 247 - Piano Class III 1(0-2)
MUS 248 - Piano Class IV 1(0-2)

Option 2
If Applied Study requirements on major is satisfied with MUS 151 or 152, then MUS 153-179 (4 hours).

Note: All applied study used to fulfill the requirements of MUS 153-179 must be on the same instrument.

Music Electives (2-6 hours)

Courses selected must be at the 300 level or above.

Total: 30 semester hours
Choral Option

Major: Music Education

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the information at the beginning of this section.

Core Courses I (29 hours)
Music Theory, History, and Literature
• 7 semesters of MUS 097.
MUS 097 - Recital Attendance 0
MUS 101 - Theory I 3(3-0)
MUS 102 - Theory II 3(3-0)
MUS 103 - Sight Singing and Ear Training I 1(0-2)
MUS 104 - Sight Singing and Ear Training II 1(0-2)
MUS 109 - Introduction to Music Technology 1(1-1)
MUS 201 - Theory III 3(3-0)
MUS 202 - Theory IV 3(3-0)
MUS 203 - Sight Singing and Ear Training III 1(0-2)
MUS 204 - Sight Singing and Ear Training IV 1(0-2)
MUS 211 - Historical Survey of Music I 3(3-0)
MUS 212 - Historical Survey of Music II 3(3-0)
MUS 304 - Instrumentation and Scoring 3(2-2)
MUS 311 - Historical Survey of Music III 3(3-0)

Core Courses II (4 hours)
Music Education
MUS 230 - Introduction to Music Education 2(1-2)
MUS 333 - Music Education in the Elementary Grades 2(2-0)

Required Courses (7 hours)
• 2 semesters of MUS 150, 151, or 152 (2 hours)
• 2 semesters of MUS 250, 151 or 152 (2 hours)
• 3 semesters of MUS 350, 351, or 352 (3 hours)
• Solo performance (0 hours)

Note: All applied study used to fulfill these requirements must be on the same instrument.
MUS 150 - Voice 1-12(Spec)
MUS 151 - Organ 1-12(Spec)
MUS 152 - Piano 1-12(Spec)
MUS 250 - Voice 1-12 (Spec)
MUS 350 - Voice 1-20(Spec)
MUS 351 - Organ 1-20(Spec)
MUS 352 - Piano 1-20(Spec)

Total: 40 semester hours

Minor: Choral

Required Courses I (12 hours)
Music Education
MUS 241 - Diction for Singers 2(1-2)
MUS 246 - String Techniques I 2(0-4)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 338 - Voice Pedagogy 2(1-2)
MUS 381 - Choral Conducting and Materials 2(0-4)
MUS 435 - Music Education in the Junior High/Middle School 2(1-2)

Required Courses II (2 hours)
Music Education
Select one of the following:
MUS 144 - Woodwind Techniques 2(0-4)
MUS 146 - Brass Techniques 2(0-4)

Required Courses III (2 hours)
Music Education
Select one of the following:
MUS 317 - Song Repertoire for Young Voices 2(2-0)
MUS 318 - Song Repertoire 2(1-2)

Required Courses IV (2 hours)
Music Education
Select one of the following:
MUS 511 - Choral Literature I 2(2-0)
MUS 512 - Choral Literature II (Since 1750) 2(2-0)

Required Courses V (7 hours)
Performance - Ensemble
4-7 semesters of MUS 182 or MUS 183 (4-7 hours)
0-3 semesters of MUS 282 or MUS 284 (0-3 hours)
MUS 182 - Women’s Chorus 1-8(Spec)
MUS 183 - Concert Choir 1-8(Spec)
MUS 282 - Advanced Vocal Ensemble 1-8(Spec)
MUS 284 - Techniques for the Singing Actor 1-6(Spec)

Required Courses VI (0-4 hours)
Performance - Secondary Applied Study
Select one of the following options:
Option 1
If Applied study requirement on major is satisfied with
MUS 150, 250, and 350, then MUS 147, 148, 247 and 248
(4 hours) or passing piano proficiency (0 hours).
MUS 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(0-2)
MUS 247 - Piano Class III 1(0-2)
MUS 248 - Piano Class IV 1(0-2)

Option 2
If Applied Study requirement on major is satisfied with
MUS 151 or 152, then MUS 150 (4 hours).
MUS 150 - Voice 1-12(Spec)

Music Electives (1-5 hours)
Selected in consultation with an advisor.
Total: 30 semester hours

General Option

Major: Music Education

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the information at the beginning of this section.

Core Courses I (29 hours)
Music Theory, History, and Literature
• 7 semesters of MUS 097.
MUS 097 - Recital Attendance 0
MUS 101 - Theory I 3(3-0)
MUS 102 - Theory II 3(3-0)
MUS 103 - Sight Singing and Ear Training I 1(0-2)
MUS 104 - Sight Singing and Ear Training II 1(0-2)
MUS 109 - Introduction to Music Technology 1(1-1)
MUS 201 - Theory III 3(3-0)
MUS 202 - Theory IV 3(3-0)
MUS 203 - Sight Singing and Ear Training III 1(0-2)
MUS 204 - Sight Singing and Ear Training IV 1(0-2)
MUS 211 - Historical Survey of Music I 3(3-0)
MUS 212 - Historical Survey of Music II 3(3-0)
MUS 304 - Instrumentation and Scoring 3(2-2)
MUS 311 - Historical Survey of Music III 3(3-0)

Core Courses II (4 hours)
Music Education
MUS 230 - Introduction to Music Education 2(1-2)
MUS 333 - Music Education in the Elementary Grades 2(2-0)

Required Courses (7 hours)
Applied Study
Passage of 300-Level Jury in one applied area is required.
Complete one of the following options:
(continued)
**Option A**  
*Instrumental Emphasis*

- MUS 141 and MUS 142 (2)  
- 1 semester of MUS 150 (1) Voice  
- 4 semesters of MUS 151-179 (4) Instrumental Study  
- Solo Performance (0)  
- 300-Level Proficiency (0)  

### Courses

- **MUS 141 - Vocal Techniques I** 1(0-2)  
- **MUS 142 - Vocal Techniques II** 1(0-2)  
- **MUS 150 - Voice** 1-12(Spec)  
- **MUS 152 - Piano 1-12(Spec)**  
- **MUS 153 - Violin and Viola 1-12(Spec)**  
- **MUS 157 - String Bass 1-12(Spec)**  
- **MUS 158 - Composition 1-4(Spec)**  
- **MUS 159 - Jazz Guitar 1-8(Spec)**  
- **MUS 161 - Flute 1-12(Spec)**  
- **MUS 163 - Oboe 1-12(Spec)**  
- **MUS 165 - Clarinet 1-12(Spec)**  
- **MUS 167 - Bassoon 1-12(Spec)**  
- **MUS 169 - Saxophone 1-12(Spec)**  
- **MUS 171 - Cornet or Trumpet 1-12(Spec)**  
- **MUS 173 - French Horn 1-12(Spec)**  
- **MUS 175 - Trombone 1-12(Spec)**  
- **MUS 177 - Euphonium 1-12(Spec)**  
- **MUS 178 - Tuba 1-12(Spec)**  
- **MUS 179 - Percussion 1-12(Spec)**

**Note:** All applied study used to fulfill these requirements must be on the same instrument.

**Option B**  
*Vocal Emphasis*

- 2 semesters of MUS 150 (2) Voice  
- 2 semesters of MUS 250 (2) Voice  
- 3 semesters of MUS 151-179, 350, and/or 450 (3) Instrumental and/or Vocal Study  
- Solo Performance (0)  
- 300-Level Proficiency (0)  

### Courses

- **MUS 150 - Voice** 1-12(Spec)  
- **MUS 151 - Organ 1-12(Spec)**  
- **MUS 152 - Piano 1-12(Spec)**  
- **MUS 153 - Violin and Viola 1-12(Spec)**  
- **MUS 155 - Violoncello 1-12(Spec)**  
- **MUS 157 - String Bass 1-12(Spec)**  
- **MUS 158 - Composition 1-4(Spec)**  
- **MUS 159 - Jazz Guitar 1-8(Spec)**  
- **MUS 161 - Flute 1-12(Spec)**  
- **MUS 163 - Oboe 1-12(Spec)**  
- **MUS 165 - Clarinet 1-12(Spec)**  
- **MUS 167 - Bassoon 1-12(Spec)**  
- **MUS 169 - Saxophone 1-12(Spec)**  
- **MUS 171 - Cornet or Trumpet 1-12(Spec)**  
- **MUS 173 - French Horn 1-12(Spec)**  
- **MUS 175 - Trombone 1-12(Spec)**  
- **MUS 177 - Euphonium 1-12(Spec)**  
- **MUS 178 - Tuba 1-12(Spec)**  
- **MUS 179 - Percussion 1-12(Spec)**  
- **MUS 250 - Voice 1-12(Spec)**  
- **MUS 350 - Voice 1-20(Spec)**  
- **MUS 450 - Voice 1-10(Spec)**

**Minor: General Music**

**Required Courses I (17 hours)**

**Music Education**

- MUS 235 - Classroom Instrument Techniques 2(0-4)  
- MUS 280 - Introduction to Conducting 2(0-4)  
- MUS 344 - Percussion Techniques 2(0-4)  
- MUS 381 - Choral Conducting and Materials 2(0-4)  
- MUS 433 - Secondary General Music Methods 3(3-0)  
- MUS 531 - Orff Techniques 2(1-2)  
- MUS 533 - Kodaly Pedagogy 2(1-2)  
- MUS 534 - Music for Pre-School Children 2(2-0)

**Required Courses II (2 hours)**

**Music Education**

- Select one of the following:
  - MUS 144 - Woodwind Techniques 2(0-4)  
  - MUS 146 - Brass Techniques 2(0-4)

**Required Courses III (7-11 hours)**

**Performance**

- **Ensemble (7 hours)**  
  7 semesters of study comprised of one of the following options:
  - **Option A**  
    *Instrumental Emphasis*  
    - If 300 Level Jury requirement on major is satisfied with MUS 153-179, then 4-5 semesters of MUS 185 or 186 (4-5), 2-3 semesters of MUS 181, 182, 183, and/or 282 (2-3).
  - **Option B**  
    *Vocal Emphasis*  
    - If 300 Level Jury requirement on major is satisfied with MUS 150, 151, 152, and/or 250, then 4-7 semesters of MUS 181, 182, or 183 (4-7), 0-3 semesters of MUS 185, 186, 281, 282, 284-286 (0-3).

- **MUS 181 - Men's Chorus** 1-8(Spec)  
- **MUS 182 - Women's Chorus** 1-8(Spec)  
- **MUS 183 - Concert Choir** 1-8(Spec)  
- **MUS 185 - Orchestra 1-8(Spec)**  
- **MUS 186 - Band 1-8(Spec)**  
- **MUS 281 - Advanced Instrumental Ensemble 1-8(Spec)**  
- **MUS 282 - Advanced Vocal Ensemble 1-8(Spec)**  
- **MUS 284 - Techniques for the Singing Actor 1-6(Spec)**  
- **MUS 285 - Percussion Ensemble 1-8(Spec)**  
- **MUS 286 - Jazz Laboratory Band 1-8(Spec)**

**Secondary Applied Study (0-4 hours)**

- If 300 Level Jury requirement on major is satisfied with MUS 150, 153-179, and/or 250, then MUS 147, 148, 247, and 248 (4) or passing piano proficiency (0).
- If 300 Level Jury requirement on major is satisfied with MUS 151 or 152, then MUS 249 (1).

- **MUS 147 - Piano Class I** 1(0-2)  
- **MUS 148 - Piano Class II** 1(0-2)  
- **MUS 247 - Piano Class III** 1(0-2)  
- **MUS 248 - Piano Class IV** 1(0-2)  
- **MUS 249 - Functional Piano** 1(0-2)

**Music Electives (0-4 hours)**

Select in consultation with an advisor.

**Total: 30 semester hours**
Bachelor of Music Degree

Admission Requirements, Retention & Termination Standards

Admission as a Music Major or Minor Admission to all music majors and minors requires a successful performance audition and passage of a basic musicianship examination. If a student does not pass the basic musicianship examination, passage of the examination at a later date will fulfill the requirement. A student who has not been accepted into the Music Program may be denied access to music core courses. Further information concerning admission as a music major or minor (including audition dates, appropriate repertoire, and study guides for the basic musicianship examination) is available in the School of Music office, or online at http://www.mus.cmich.edu/.

Admission to Music Candidacy

Prior to enrolling in classes above 200 level, a student must apply to the School of Music Office for admission to Music Candidacy. Admission to this program will allow a student access to music study at the 300 level and above. Requirements for admission include signed authorizations appropriate to a student’s curriculum, passage of a 300 level performance examination on the appropriate instrument, and completion of MUS 101, 102, 103, 104, 147, 148, 201, 202, 203, 204, 211, 212, 247, and 248 with a grade of “C” or better. Tentative admission will be granted if it is clear from the application that it is possible to remove all deficiencies within one academic year. Such tentative admission will be reviewed at the end of that period and access to courses 300 level and above will be revoked if requirements remain unfulfilled. It is the student’s responsibility to document the fulfillment of all admission requirements. Applications for admission to Music Candidacy are available in the School of Music Office.

Additional Requirements for Music Majors and Minors

Music major and minors on all degree programs must receive a grade of “C” or better in each required MUS course. Credit/No Credit grades are not acceptable on music majors and minors.

Core Courses (32 hours)

- 7 semesters of MUS 097
- MUS 101 - Theory I 3(3-0)
- MUS 102 - Theory II 3(3-0)
- MUS 103 - Sight Singing and Ear Training I 1(0-2)
- MUS 104 - Sight Singing and Ear Training II 1(0-2)
- MUS 109 - Introduction to Music Technology 1(1-1)
- MUS 201 - Theory III 3(3-0)
- MUS 202 - Theory IV 3(3-0)
- MUS 203 - Sight Singing and Ear Training III 1(0-2)
- MUS 204 - Sight Singing and Ear Training IV 1(0-2)
- MUS 211 - Historical Survey of Music I 3(3-0)
- MUS 212 - Historical Survey of Music II 3(3-0)
- MUS 302 - Counterpointal Techniques 3(3-0)
- MUS 304 - Instrumentation and Scoring 3(2-2)
- MUS 311 - Historical Survey of Music III 3(3-0)

Major: Theory/Composition

Admission Requirements, Retention & Termination Standards

See the information at the beginning of this section.

Common Core (32 hours)

See above.

Required Courses I (25 hours)

Major Area Theory Courses

- Recital (0)
- 2 semesters of MUS 158 (2 hours)
- 4 semesters of MUS 358 (8 hours)
- MUS 158 - Composition 1-4(Spec)
- MUS 209 - Music Synthesis II 2(2-0)
- MUS 309 - Music Synthesis II 2(2-0)
- MUS 358 - Composition 2-8(Spec)
- MUS 503 - Advanced Counterpoint 2(2-0)
- MUS 504 - Contemporary Compositional Techniques 2(2-0)
- MUS 505 - Seminar In Analysis: Twentieth-Century Music 2-4(Spec)
- MUS 506 - Advanced Scoring 2(2-0)
- MUS 520 - Jazz Arranging 3(3-0)

Required Courses II (20 hours)

Supportive Courses in Music

- MUS 280 (2 hours).
- MUS 147, 148, 247, 248, 249 and/or MUS 152 (6 hours). Specific courses determined by placement exam.
- Instrumental or Vocal Applied Study (4 hours)
- 8 semesters of ensemble (8 hours)
- MUS 147 - Piano Class I 1(0-2)
- MUS 148 - Piano Class II 2(0-2)
- MUS 152 - Piano 1-12(Spec)
- MUS 247 - Piano Class III 1(0-2)
- MUS 248 - Piano Class IV 1(0-2)
- MUS 249 - Functional Piano 1(0-2)
- MUS 280 - Introduction to Conducting

Other Requirements I (3 hours)

Supportive Courses outside Music

Select one of the following:
- ART 318 - Aesthetics 3(3-0)
- PHL 480 - Philosophy of the Arts 3(3-0)

Other Requirements II (3 hours)

Supportive Courses outside Music

Select one of the following:
- PHS 101 - Survey of Physical Science 3(3-0)
- PHS 371 - Musical Acoustics 3(2-2)
- PHY 100 - Conceptual Physics 3(3-0)

Music Electives (6 hours)

Selected in consultation with an advisor.

Total: 89 semester hours

Major: Orchestral Instruments

Admission Requirements, Retention & Termination Standards

See the information at the beginning of this section.

Common Core (32 hours):

See above.

Required Courses I (36 hours)

Major Area Performance Courses

- 4 semesters of MUS 153 - 179 (8 hours)
- 4 semesters of MUS 353 - 379 (16 hours)
- Junior Recital (0 hours), Senior Recital (0 hours)
- 8 semesters of MUS 185 or MUS 186 (8 hours)
- 4 semesters of MUS 281 or MUS 285 (4 hours)

Note: All applied study used to fulfill these requirements must be on the same instrument.
- MUS 153 - Violin and Viola 1-12(Spec)
- MUS 155 - Violoncello 1-12(Spec)
- MUS 157 - String Bass 1-12(Spec)
MUS 158 - Composition 1-4(Spec)
MUS 159 - Jazz Guitar 1-8(Spec)
MUS 161 - Flute 1-12(Spec)
MUS 163 - Oboe 1-12(Spec)
MUS 165 - Clarinet 1-12(Spec)
MUS 167 - Bassoon 1-12(Spec)
MUS 169 - Saxophone 1-12(Spec)
MUS 171 - Cornet or Trumpet 1-12(Spec)
MUS 173 - French Horn 1-12(Spec)
MUS 175 - Trombone 1-12(Spec)
MUS 177 - Euphonium 1-12(Spec)
MUS 178 - Tuba 1-12(Spec)
MUS 179 - Percussion 1-12(Spec)
MUS 180 - Festival Chorus 1-8(Spec)
MUS 181 - Men's Chorus 1-8(Spec)
MUS 182 - Women's Chorus 1-8(Spec)
MUS 183 - Concert Choir 1-8(Spec)
MUS 185 - Orchestra 1-8(Spec)
MUS 186 - Band 1-8(Spec)
MUS 189 - Introduction to Accompanying 1(0-2)

Required Courses II (14 hours)
Supportive Courses in Music

Music Electives (8 hours)
Selected in consultation with an advisor.

Total: 89 semester hours

Major: Organ

Required Courses I (34 hours)
Major Area Performance Courses

Music Electives (2 hour)
Selected in consultation with an advisor.

Total: 89 semester hours

Major: Piano

Required Courses I (34 hours)
Major Area Performance Courses

Music Electives (2 hour)
Selected in consultation with an advisor.

Total: 89 semester hours
Required Courses II (11 hours)

Supportive Courses in Music

MUS 236 - Piano Pedagogy I 2(2-0)
MUS 237 - Piano Pedagogy II 2(2-0)
MUS 249 - Functional Piano 1(0-2)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 514 - Survey of Keyboard Literature 2(2-0)
MUS 516 - Survey of Keyboard Literature II 2(2-0)

Required Courses III (1-2 hours)

Supportive Courses in Music

Select one of the following:
MUS 241 - Diction for Singers 2(1-2)
MUS 339 - Piano Pedagogy Practicum 1(1-1)

Other Requirements (8 hours)

Supportive Courses outside Music

Select one of the following options:

Option I (8 hours)
FRN 101 - Elementary French I 4(4-0)
FRN 102 - Elementary French II 4(4-0)

Option II (8 hours)
GER 101 - Elementary German I: Language and Culture 4(4-0)
GER 102 - Elementary German II: Language and Culture 4(4-0)

Music Electives (2-3 hours)

Selected in consultation with an advisor.

Total: 89 semester hours

Major: Voice

Admission Requirements, Retention & Termination Standards

See the information at the beginning of this section.

Common Core (32 hours):

See above.

Required Courses I (28 hours)

Major Area Performance Courses

- 2 semesters of MUS 150 (4 hours)
- 2 semesters of MUS 250 (4 hours)
- 2 semesters of MUS 350 (4 hours)
- 2 semesters of MUS 450 (8 hours)
- Junior Recital (0 hours)
- Senior Recital (0 hours)
- 8 semesters of MUS 181, 182, 183, 282 and/or 284 (8 hours)

MUS 150 - Voice 1-12(Spec)
MUS 181 - Men's Chorus 1-8(Spec)
MUS 182 - Women's Chorus 1-8(Spec)
MUS 183 - Concert Choir 1-8(Spec)
MUS 250 - Voice 1-12(Spec)
MUS 282 - Advanced Vocal Ensemble 1-8(Spec)
MUS 284 - Techniques for the Singing Actor 1-6(Spec)
MUS 350 - Voice 1-20(Spec)
MUS 450 - Voice 1-10(Spec)

Required Courses II (12 hours)

Supportive Courses in Music

- 4 hours of MUS 147, 148, 247, 248, 249; and/or MUS 152; specific courses determined by a placement exam
- MUS 241 (2 hours)
- MUS 280 (2 hours)
- MUS 318 (2 hours)
- MUS 338 (2 hours)

MUS 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(0-2)
MUS 152 - Piano 1-12(Spec)
MUS 241 - Diction for Singers 2(1-2)
MUS 247 - Piano Class III 1(0-2)
MUS 248 - Piano Class IV 1(0-2)
MUS 249 - Functional Piano 1(0-2)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 318 - Instrumental Repertoire 2(1-2)
MUS 338 - Voice Pedagogy 2(1-2)

Other Requirements (16 hours)

Supportive Music Courses outside Music

FRN 101 - Elementary French I 4(4-0)
FRN 102 - Elementary French II 4(4-0)
GER 101 - Elementary German I: Language and Culture 4(4-0)
GER 102 - Elementary German II: Language and Culture 4(4-0)

Music Elective (1 hour)

Selected in consultation with an advisor.

Total: 89 semester hours

Bachelor of Arts or Bachelor of Science Degree

The music major on these degrees is designed for students preparing for careers as musicologists, composers, music librarians, performers, or church musicians who prefer to study music within a broad-based liberal arts degree program or for those students who wish to combine a music major with a second major in another discipline.

Admission Requirements, Retention & Termination Standards

Admission as a Music Major or Minor Admission to all music majors and minors requires a successful performance audition and passage of a basic musicianship examination. If a student does not pass the basic musicianship examination, passage of the examination at a later date will fulfill the requirement. A student who has not been accepted into the Music Program may be denied access to music core courses. Further information concerning admission as a music major or minor (including audition dates, appropriate repertoire, and study guides for the basic musicianship examination) is available in the School of Music office, or online at http://www.mus.cmich.edu.

Admission to Music Candidacy

Prior to enrolling in classes above 200 level, a student must apply to the School of Music Office for admission to Music Candidacy. Admission to this program will allow a student access to music study at the 300 level and above. Requirements for admission include signed authorizations appropriate to a student's curriculum, passage of a 300 level performance examination on the appropriate instrument, and completion of MUS 101, 102, 103, 104, 147, 148, 201, 202, 203, 204, 211, 212, 247, and 248 with a grade of "C" or better. Tentative admission will be granted if it is clear from the application that it is possible to remove all deficiencies within one academic year. Such tentative admission will be reviewed at the end of that period and access to courses 300 level and
above will be revoked if requirements remain unfulfilled. It is the student's responsibility to document the fulfillment of all admission requirements. Applications for admission to Music Candidacy are available in the School of Music office.

Additional Requirements for Music Majors and Minors

Music major and minors on all degree programs must receive a grade of "C" or better in each required MUS course. Credit/No Credit grades are not acceptable on music majors and minors.

Major: Music

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the information above.

Required Courses I (26 hours)

Music Theory, History, and Literature

- 4 semesters of MUS 097.
- MUS 097 - Recital Attendance 0
- MUS 101 - Theory I 3(3-0)
- MUS 102 - Theory II 3(3-0)
- MUS 103 - Sight Singing and Ear Training I 1(0-2)
- MUS 104 - Sight Singing and Ear Training II 1(0-2)
- MUS 109 - Introduction to Music Technology 1(1-1)
- MUS 201 - Theory III 3(3-0)
- MUS 202 - Theory IV 3(3-0)
- MUS 203 - Sight Singing and Ear Training III 1(0-2)
- MUS 204 - Sight Singing and Ear Training IV 1(0-2)
- MUS 211 - Historical Survey of Music I 3(3-0)
- MUS 212 - Historical Survey of Music II 3(3-0)
- MUS 213 - Historical Survey of Music III 3(3-0)

Required Courses II (4 hours)

Performance - Applied Study

- 4 semesters of study on same instrument at 100, 200, 300 and/or 400 level (4);
- 300 level proficiency (0);
- Solo Performance (0)

Required Courses III (6 hours)

Performance - Ensemble

- 4-5 semesters of MUS 182, MUS 183, MUS 185, or MUS 186 (4-5);
- 1-2 semesters of MUS 281, MUS 282, MUS 284, MUS 285, or MUS 286 (1-2)
- MUS 182 - Women's Chorus 1-8(Spec)
- MUS 183 - Concert Choir 1-8(Spec)
- MUS 185 - Orchestra 1-8(Spec)
- MUS 186 - Band 1-8(Spec)
- MUS 281 - Advanced Instrumental Ensemble 1-8(Spec)
- MUS 282 - Advanced Vocal Ensemble 1-8(Spec)
- MUS 284 - Techniques for the Singing Actor 1-6(Spec)
- MUS 285 - Percussion Ensemble 1-8(Spec)
- MUS 286 - Jazz Laboratory Band 1-8(Spec)

Other Requirements (1-3 hours)

Supportive Courses outside of Music

Select a course from one of the following designators: ART, DAN, TAI.

Music Electives (1-3 hours)

Courses selected must be at 300 level or above.

Total semester hours: 40

Minor: Music

Required Courses I (8 hours)

- MUS 101 - Theory I 3(3-0)
- MUS 102 - Theory II 3(3-0)
- MUS 103 - Sight Singing and Ear Training I 1(0-2)
- MUS 104 - Sight Singing and Ear Training II 1(0-2)

Required Courses II (3 hours)

Select one of the following:
- MUS 110 - Music in Society 2-3(Spec)
- MUS 114 - Listening Experience 3(3-0)

Required Courses III (4 hours)

2 semesters of Applied Study (2 hours)
2 semesters of Ensemble (2 hours)

Electives (5 hours)

Selected in consultation with an advisor.

Total: 20 semester hours

Bachelor of Fine Arts Degree

Music Theater Major

B.F.A. Degree

This is an interdisciplinary major. Please check the index for the page number.
College of Education and Human Services

Karen I. Adams, Dean
Dianne L. H. Mark, Associate Dean
Kathleen Jacobson, Director of Professional Education
Cindy E. Hales, Director of Development
307 Ronan Hall, (989) 774-6995

“The College of Education and Human Services will be at the forefront in the preparation of professionals for the twenty-first century.”

Introduction

The primary mission of the College of Education and Human Services (EHS) is to provide the highest quality undergraduate and graduate educational experiences that develop effective professionals, critical thinkers, and lifelong learners. Students will expand their understanding of themselves and their roles in a diverse and global society. Through a broad range of technological and human services, the College and its graduates, in collaboration with the constituencies they serve, will be proactive forces for improving the quality of life in the twenty-first century.

We believe that involvement in the field, prior to graduation, is a critical component of all of our programs. While many remain in their original professions—teaching, leisure services, or an area of family development—other graduates eventually go to graduate school for advanced study into areas such as counseling, special education, or educational administration. Whether you are just exploring these fields or want to sign a major, know that the faculty and staff are deeply committed to caring for and serving you.

Teaching-Related Programs

The process of becoming a certified teacher in Michigan starts when you enter CMU and declare your intent to focus on that area. Advising is a critical component for all education students; some courses may be counted in different types of ways to meet various curricular requirements. Meeting with your advisor and mentor regularly is important.

The Department of Teacher Education and Professional Development prepares students for certification in elementary and secondary education through its professional education courses. Other departmental majors and minors are located within 25 academic departments across the university.

CMU is accredited by the National Council for Accreditation of Teacher Education. We are one of just over 500 institutions in the United States that are accredited. CMU is expected to meet high standards for all of our professional education programs.

Human Service-Related Programs

An array of Human Service programs is offered through EHS. If you see yourself interacting with people in a professional capacity, or think you would like a career in a business or a human service agency setting working with clients face-to-face to help them in meeting their needs, you should explore human service-related programs in EHS.

All professional degree programs include carefully designed, direct experiences in real-life settings. These required experiences, which differ from program to program, have one common element - close contact with people with whom you will work as a professional.

Much of the hands-on experience in EHS takes place in the many clinics and centers which provide service to the university and the community at large. These clinics include: the Human Growth and Development Laboratory, the Human Development Clinic and the Reading Clinic. College centers are: Center for Leisure Services, Opportunities for Talent Development, Instructional Material Center, Science/Mathematics/Technology Center, Michigan Adult Learning and Technology Center, Michigan Schools in the Middle, and Resource Center for Charter Schools.

Interdisciplinary Programs

Gerontology is the study of aging. At CMU, the interdisciplinary gerontology minor involves education, service, and research. The program also encourages the development of gerontology-related continuing education opportunities, activity programs, and grant projects. For further information contact the director, Interdisciplinary Gerontology Program, in the Department of Human Environmental Studies.

The Bilingual Bicultural Education programs offer minors in Ojibwe and Spanish. These minors are a multidisciplinary selection of courses to prepare the student to teach children of Ojibwe heritage or Spanish-speaking background who have limited English language skills.

The purpose of the Language Arts program (major or minor) is to prepare prospective teachers to function effectively in this integral component of the elementary classroom. The goal of the program is to have the students possess the knowledge, skills, and understanding of the role of language arts in elementary education.

The Leadership Minor is a 24 credit hour interdisciplinary program. The major objective of the program is to educate students for and about leadership positions in their community and profession. The minor complements a wide variety of academic programs. Contact the Department of Recreation, Parks and Leisure Services Administration at 774-1939 or see the advisor in Finch 213.

Graduate Programs

Graduate programs are offered in all five departments within EHS, as well as an Interdisciplinary Masters of Arts in Education. The Department of Counseling and Special Education offers masters’ level programs in Professional Counseling, School Counseling and Special Education. The Educational Administration & Community Leadership Department provides graduate students the opportunities to pursue advanced degrees in Community Leadership, General Education Administration and School Principalship. This department also offers a specialist degree and a terminal degree in Educational Leadership. Human Environmental Studies offers graduate programs in both Human Development and Family Studies and Nutrition and Dietetics. Recreation, Parks & Leisure Services Administration has the state’s first professionally accredited major in the field of recreation, parks and leisure services administration. Teacher Education and Professional Development offers graduate degrees in the following areas: Educational Technology: Elementary Education; Library, Media and Technology; Middle Level Education; Reading and Literacy; and Secondary Education.
Why Study Counseling and Special Education?
The study of Counseling and Special Education will help you to develop a knowledge and understanding of individual differences, life span issues and working with others. The programs offered emphasize working with clients and students as individuals within a group setting and serving them throughout the life span. All programs provide experiential applications for students. If you are interested in a career in counseling or in working with persons with special needs or in improving your skills in these areas, you should discuss your plans with a member of the Counseling and Special Education faculty.

Counseling and Special Education at CMU
The Department of Counseling and Special Education offers undergraduate special education majors on the Bachelor of Science degree, grades K-12. A program is also offered for teachers holding general elementary or secondary certification to become approved in the area of emotional impairment or cognitive impairment.

Counseling and Special Education at CMU
The Department of Counseling and Special Education offers undergraduate special education majors on the Bachelor of Science degree, grades K-12. A program is also offered for teachers holding general elementary or secondary certification to become approved in the area of emotional impairment or cognitive impairment.

Courses are offered by the counseling program to assist students in personal growth and development, and to prepare graduates for careers as counselors.

The department also offers programs leading to a Master of Arts degree which prepare graduates for positions requiring counseling skills or advanced specialization and/or additional teaching endorsements in the areas of emotional impairment, learning disabilities, autism, and cognitive impairment at the K-12 level.

See the Graduate Bulletin for a complete description of graduate programs.

The Faculty
Dawn Decker, Wendy Folger, Laura Frey, Sherrel Lee Haight, Holly Hoffman, N. Joan Hornak, Patricia Kopetz, Sherene McHenry, Twinet Parmer, Suzanne Shellady

Special Education Major
Teachers of Students with Cognitive Impairment
B.S. in Ed., Provisional Elementary or Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
Teacher Certification - All programs are subject to changes in state certification rules and students should contact an advisor before pre-registration each semester. A student who plans to major in special education should contact the EHS Center for Student Services, 204 Ronan Hall, as soon as possible to initiate the Admission to Teacher Education process. Students must fulfill all requirements listed for Admission to Teacher Education programs as specified in the Teacher Certification section of this Bulletin.

All students preparing to become approved to teach in special education must also meet requirements for certification in general elementary or secondary education. The endorsements in cognitive impairment and emotional impairment, both K-12, require either an elementary or secondary education general education certificate. Students completing a special education endorsement will be eligible to teach special education students in grades kindergarten through twelve (or age 26).

Before a major is signed the student must have earned a grade of C or higher in SPE 126 (3) Introduction to Special Education.

Effective Fall semester, 1990, students will be required to complete two student teaching assignments, one in Special Education during one semester and one in General Education during another semester. Application for student teaching must be made through the office of the Department of Teacher Education and Professional Development by the established deadline in advance of each placement, with approval recommended by Special Education prior to placement. Fall student teaching applications are due the preceding spring semester, and spring student teaching applications are due the preceding fall semester, by the established deadline.

A minimum 2.7 GPA (B-) must be earned in all teaching majors.

For Special Education major, Teachers of students with Cognitive Impairment, the following courses require a C+ or better: SPE 322, 323, 324, 519, 521, and 522.

Core Courses (24 hours)
SPE 126 - Introduction to Special Education 3(3-0)
SPE 322 - Curriculum and Instruction for Students with Special Needs 6(6-0)
SPE 323 - Classroom Management for Students with Special Needs 3(3-0)
SPE 324 - Special Education Classroom-Based Assessment 6(2-8)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)
SPE 570 - Career Development and Transition 3(3-0)

Note: SPE 322, 323, and 324 require a C+ or better.

Required Courses (9 hours)
Professional Sequence
SPE 519 - Teaching the Student with Mild Cognitive Impairment 3(3-0)
SPE 521 - Teaching the Student with Moderate to Severe Cognitive Impairment 3(3-0)
SPE 522 - Field Experience-Cognitive Impairment 3-6(Spec)

Note: SPE 519, 521, and 522 require a C+ or better.

Electives (6 hours)
Select in consultation with an advisor.

Total: 39 semester hours
Special Education Major

Teachers of Students with Emotional Impairment
B.S. in Ed., Provisional Elementary or Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

Teacher Certification - All programs are subject to changes in state certification rules and students should contact an advisor before pre-registration each semester. A student who plans to major in special education should contact the EHS Center for Student Services, 204 Ronan Hall, as soon as possible to initiate the Admission to Teacher Education process. Students must fulfill all requirements listed for Admission to Teacher Education programs as specified in the Teacher Certification section of this Bulletin.

All students preparing to become approved to teach in special education must also meet requirements for certification in general elementary or secondary education. The endorsements in cognitive impairment and emotional impairment, both K-12, require either an elementary or secondary education general education certificate. Students completing a special education endorsement will be eligible to teach special education students in grades kindergarten through twelve. (or age 26).

Before a major is signed the student must have earned a grade of C or higher in SPE 126 (3) Introduction to Special Education.

Effective Fall semester, 1990, students will be required to complete two student teaching assignments, one in Special Education during one semester and one in General Education during another semester. Application for student teaching must be made through the office of the Department of Teacher Education and Professional Development by the established deadline in advance of each placement, with approval recommended by Special Education prior to placement. Fall student teaching applications are due the preceding spring semester, and spring student teaching applications are due the preceding fall semester, by the established deadline.

A minimum 2.7 GPA (B-) must be earned in all teaching majors.

For Special Education Major, Teachers of Students with Emotional Impairment, the following courses require a C+ or better: SPE 322, 323, 324, 578, 579, and 581.

Core Courses (24 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 126</td>
<td>Introduction to Special Education</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>SPE 322</td>
<td>Curriculum and Instruction for Students with Special Needs</td>
<td>6(6-0)</td>
</tr>
<tr>
<td>SPE 323</td>
<td>Classroom Management for Students with Special Needs</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>SPE 324</td>
<td>Special Education Classroom-Based Assessment</td>
<td>6(2-8)</td>
</tr>
<tr>
<td>SPE 550</td>
<td>Teaching Culturally Diverse Students</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>SPE 570</td>
<td>Career Development and Transition</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

Note: SPE 322, 323, and 324 require a C+ or better.

Required Courses (9 hours)

Professional Sequence

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPE 578</td>
<td>Students with Emotional Impairment</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>SPE 579</td>
<td>Teaching Students with Emotional Impairment</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>SPE 581</td>
<td>Field Experience-Emotional Impairment</td>
<td>3-6(Spec)</td>
</tr>
</tbody>
</table>

Note: SPE 578, 579, and 581 require a C+ or better.

Electives (6 hours)

Select in consultation with an advisor.

Total: 39 semester hours

Educational Leadership (EDL, EAD)

For information, please contact the chairperson, 774-3204, Ronan Hall 320

Why Study Educational Leadership?

Leadership skills are vital to all academic and community institutions. Because the Department of Educational Leadership provides leadership preparation programs, our students are virtually all at or near graduate level in studies. If you are interested in a career as an elementary, secondary, or higher education administrator, leader of a voluntary organization or community agency, or simply want to increase your administrative skills, you will definitely want to discuss your plans with a member of the department’s faculty.

Educational Leadership at CMU

The department offers the Master of Arts, Specialist in Education and Doctor of Education degrees. The Master of Arts degree prepares students for positions as leaders in educational organizations. The Specialist in Education degree provides students an opportunity to enhance their leadership skills in a field-based academic program. The Doctor of Education degree in educational leadership assists experienced leaders to achieve the level of practitioner scholar and to provide strong organizational leadership.

See the Graduate Bulletin for a complete description of graduate programs.

The Faculty

Harvey Dorrah, Pamela L. Eddy, Chester Fuller, Michael B. Gilbert, Roger N. Grabinski, Betty Kirby, Sarah Marshall, Meechai Orsuwan, Michael S. Rao, Rena E. Richtig, David E. Whale
# Majors

## Apparel Merchandising and Design Major

**B.A.: B.A.A.: B.S. degrees**

The purpose of the major is to study aesthetic and functional design, marketing, and retailing of apparel and textiles. The major is planned to prepare students for a variety of professional careers in the apparel and textile industry. Career possibilities and available in the design, production, and distribution of apparel and textile products. The major includes an apparel merchandising and design core of 33 hours plus additional required courses and an elective in each of the concentrations of apparel design or apparel merchandising. In addition to the required courses in the cores, students are required to choose a concentration.

### Admission Requirements, Retention & Termination Standards

1. Student must have a minimum GPA of 2.0 to sign a major.
2. Student must have a minimum program GPA of 2.7 in order to graduate with this major.
3. Student must achieve a grade of C or better in all major courses in order to graduate with this major.
4. In order to enroll in a major course, student must have achieved a C or better in the required major prerequisite course(s).
5. Upon receipt of the third C- or lower in a major course, student will not be allowed to complete the major.

## Core Courses (33 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>HEV 141</td>
<td>Apparel Design: Analysis</td>
</tr>
<tr>
<td>HEV 155</td>
<td>Introduction to Textiles</td>
</tr>
<tr>
<td>HEV 246</td>
<td>Computer-Aided Design for Apparel</td>
</tr>
<tr>
<td>HEV 252</td>
<td>Dress and Culture</td>
</tr>
<tr>
<td>HEV 256</td>
<td>Fashion Merchandising</td>
</tr>
<tr>
<td>HEV 300</td>
<td>Preprofessional Seminar</td>
</tr>
<tr>
<td>HEV 355</td>
<td>Textile Analysis</td>
</tr>
<tr>
<td>HEV 457</td>
<td>Portfolio Techniques</td>
</tr>
<tr>
<td>HEV 550</td>
<td>Textiles and Apparel in a Global Economy</td>
</tr>
</tbody>
</table>

### Select one of the following concentrations:

## Apparel Merchandising Concentration (13 hours)

### Required Courses (7 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIS 106</td>
<td>Spreadsheet Concepts</td>
</tr>
<tr>
<td>HEV 356</td>
<td>Visual Merchandising</td>
</tr>
<tr>
<td>HEV 456</td>
<td>Fashion Buying</td>
</tr>
</tbody>
</table>

### Other Requirements (3 hours)

Select one of the following:

- HEV 140 - Introduction to Apparel Construction
- HEV 250 - Apparel Evaluation
Electives (3 hours)
- Select one of the following:
  - BLR 202 - Legal Environment of Business 3(3-0)
  - BLR 325 - Women and the Law 3(3-0)
  - MGT 320 - Human Resource Management 3(3-0)
  - MGT 357 - Women in Management 3(3-0)
  - MGT 365 - International Business 3(3-0)

Apparel Design Concentration (18 hours)

Required Courses (15 hours)
- HEV 140 - Introduction to Apparel Construction 3(2-2)
- HEV 240 - Advanced Apparel Construction 3(2-2)
- HEV 241 - Apparel Design: Illustration 3(1-3)
- HEV 345 - Apparel Design Methods 3(2-2)
- HEV 547 - Functional Apparel Design 3(2-2)

Electives (3 hours)
- Select one art studio course OR: HEV 546 - Experimental CAD for Apparel 3(2-2)

Total: 46-51 semester hours

International Experience: Students may substitute up to 12 credit hours on the major through participation in a study abroad or an international internship experience subject to the pre-approval of the major advisor. Students who substitute a core course must receive a C or better.

Child Development Major

B.A.; B.A.A.; B.S. Degrees

Child Development is an interdisciplinary field of study that examines the growth and development of children in their social contexts.

The general plan of study is a flexible major designed to prepare students for a wide variety of careers in human and service settings working with children and families. It may also be used as preparatory training for graduate studies in child developmental and professional programs in health- and counseling-related fields.

The Early Childhood Concentration is a structured plan of study designed to meet the training guidelines of the National Association for the Education of Young Children (NAEYC). This concentration is especially appropriate for students who plan on working in early childhood settings such as childcare centers, preschools, and Head Start programs. Students interested in a concentration is especially appropriate for students who plan on working in early childhood settings such as childcare centers, preschools, and Head Start programs. Students interested in a concentration should refer to the appropriate major in this bulletin.

All students must take Section I - Core Requirements and select a concentration.

Admission Requirements, Retention & Termination Standards

1. Student must have completed or currently be enrolled in HEV 100 and must have a minimum GPA of 2.0 in order to sign a major.
2. Student must have a minimum program GPA of 2.5 in order to graduate with this major.
3. Students must receive a grade of C+ or better in HEV 419 (General Concentration) or HEV 409 (Early Childhood Concentration) in order to graduate with this major.

Core Courses I (12 hours)

Development and Professional Foundations
- HEV 100 - Human Growth and Development: Lifespan 3(3-0)
- HEV 219 - HDFS Field Work 3(1-6)
- HEV 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
- HEV 308 - Human Growth and Development: Theory 3(3-0)

Core Courses II (3 hours)

Family, Diversity, and Developmental Context
- Select one of the following:
  - HEV 211 - Marriage and Family Perspectives 3(3-0)
  - HEV 291 - Human Environmental Studies: Family Ecology 3(3-0)

Core Courses III (3 hours)

Family, Diversity, and Developmental Context
- Select one of the following:
  - HEV 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
  - HEV 212 - The Family in Cultural Perspective 3(3-0)
  - SPE 126 - Introduction to Special Education 3(3-0)
  - SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Select one of the following concentrations:

General Concentration

Required Courses I (6-7 hours)

Developmental Emphasis
- Select two of the following courses:
  - HEV 302 - Human Growth and Development: Infancy 3(3-0)
  - HEV 303 - Human Growth and Development: Early Childhood 4(3-2)
  - HEV 306 - Human Growth and Development: Adolescence 3(3-0)
  - HEV 510 - Human Growth and Development: Seminar 3(3-0)

Required Courses II (3 hours)

Professional Methods
- Select one of the following courses:
  - HEV 319 - HDFS Skills and Methods 3(3-0)
  - HEV 414 - Human Development and Family Studies Research Methods 3(3-0)
  - HEV 506 - Human Growth and Development: Practicum in Parent Involvement 3(2-2)

Required Courses III (1-12 hours)

Professional Methods
- Select one of the following:
  - HEV 419 - HDFS Internship 1-12(Spec)
  - HEV 490 - Independent Study 1-6(Spec)

Students must complete one of the required Professional Methods courses prior to enrollment in HEV 419 or 490.

Electives (2-6 hours)

Electives to complete minimum 36 hours required for major. Any course not used from above list to fulfill requirements may be used for elective credit. Additional approved electives include:
- CDO 130 - Normal Speech and Language Acquisition 3(3-0)
- CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
- ENG 381 - Children’s Literature 3(3-0)
- HEV 213/WST 213 - Introduction to Human Sexuality 3(3-0)
- HEV 315 - Family Management Theory 3(3-0)
- HEV 411 - Family Relations 3(3-0)
- HEV 508 - Human Growth & Development: Preschool Administration 3(3-0)
- IET 232 - Technology for Children 2(1-2)
- PSY 322 - Psychology of Infancy and Early Childhood 3(3-0)
- PSY 324 - Childhood and Adolescence 3(3-0)
- RPL 206 - Recreation Activities Leadership 3(3-0)
- SOC 222 - Juvenile Delinquency 3(3-0)
- SOC 412 - Sociology of Adolescence 3(3-0)
- TAI 373 - Oral Interpretation for Children 3(3-0)
- TAI 585 - Creative Dramatics 3(2-2)

Note: Select only one of: CDO 130 OR 230; PSY 322 OR 324; SOC 222 OR 412; TAI 373 OR 585.

Total: 36 semester hours

(continued)
Early Childhood Concentration

Required Courses I (7 hours)

Developmental Emphasis
HEV 302 - Human Growth and Development: Infancy 3(3-0)
HEV 303 - Human Growth and Development: Early Childhood 4(3-2)

Required Courses II (15 hours)

Professional Methods
HEV 402 - Human Growth and Development: Guidance for Young Children 4(Spec)
HEV 403 - Human Growth and Development: Curriculum and Planning in Pre-Primary 3(3-0)
HEV 409 - Human Growth and Development: Lead Teaching Experience B(Spec)

Total: 40 semester hours

Child Development Major

B.S. in Ed., Provisional Elementary Certification

The intent of the Child Development Major for elementary education is to provide students with an interdisciplinary approach to the study of children. The study of children in the preschool and elementary years is viewed within the context of teaching and working with children in educational settings. Students who complete this major may take the Michigan Early Childhood Examination. Successful completion of this examination results in the addition of the Early Childhood (ZA) Endorsement to the student’s K-8 teaching certificate. The ZA Endorsement is required for employment in Michigan Public School Preschool Programs.

Like the minor in child development, the required courses on this major meet the minimum course work requirements for early childhood education by the Michigan Department of Education. The five to six hours of electives on the major, however, provide a more in-depth study of child development than is offered on the minor. The two elective courses chosen from a ten-course offering emphasize the influence of the family and the larger culture on the development of children. This major is appropriate for students who desire a more in-depth study of child development as preparation for teaching young children than the minimum course work provided in the minor. It is also an appropriate choice for students who have career plans that include teacher certification but allow for the exploration of careers working with children in other settings such as the pursuit of a master’s degree in school counseling.

The total number of semester hours required to complete this major and two additional minors is actually less than the total number of hours on the average major/minor combination on the B.S. in Education. This is due to careful design of this program to maximize double counting of courses within the degree and university program. Early advisement and planning are necessary to be able to complete this major with as few hours as possible.

This major is authorized by a designated advisor in the Department of Human Environmental Studies. Completion of this major requires two minors. One of the minors must be selected from Integrated Science, Mathematics, or Physical Science. The second minor may be selected from Bilingual Bicultural Education - Ojibwe, Bilingual Bicultural Education - Spanish, Geography, History, English, Language Arts, or Reading in the Elementary Grades.

Admission Requirements, Retention & Termination Standards

1. A minimum 2.7 GPA (B-) must be earned in all teaching majors.
2. A minimum 2.5 GPA and completion of (or enrollment in) one of the following courses (HEV 100, EDU 280, or PSY 220) are required for authorization of this major.
3. HEV 402 is a departmental methods course and must be completed with a grade of C+ or better before student teaching.

Required Courses I (3 hours)

Select one of the following:
EDU 280 - Education of Children 3(3-0)
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)

Required Courses II (20 hours)

EDU 290 - Technology in Education 3(1-4)
EDU 525 - Early Childhood Education 3(3-0)
HEV 302 - Human Growth and Development: Infancy 3(3-0)
HEV 303 - Human Growth and Development: Early Childhood 4(3-2)
HEV 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
HEV 402 - Human Growth and Development: Guidance for Young Children 4(Spec)

Required Courses III (3 hours)

Diversity: Special Needs
Select one of the following:
CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
CDO 438 - Language Disorders in Special Education Populations 3(3-0)
SPE 126 - Introduction to Special Education 3(3-0)

Required Courses IV (3 hours)

Diversity: Cultural
Select one of the following:
ANT 200 - Education and Culture 3(3-0)
HEV 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
HST 221 - Growing Up in America 3(3-0)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Required Courses V (3 hours)

Family Relations
Select one of the following:
CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
HEV 212 - The Family in Cultural Perspective 3(3-0)
SOC 411 - The Family 3(3-0)

Electives (5-6 hours)
Select two of the following:
ASL 101 - American Sign Language, Level I 3(3-0)
ASL 102 - American Sign Language, Level II 3(3-0)
ENG 381 - Children's Literature 3(3-0)
HSC 205 - Responding to Emergencies 2(1-2)
IET 232 - Technology for Children 2(1-2)
MUS 134 - Music in Early Childhood 3(3-0)
MUS 534 - Music for Pre-School Children 2(2-0)
RPL 206 - Recreation Activities Leadership 3(3-0)
TAI 373 - Oral Interpretation for Children 3(3-0)
TAI 585 - Creative Dramatics 3(2-2)

Total: 37-38 Semester hours

Dietetics Major

B.A.; B.S. degrees

Completion of this program satisfies the academic requirements of the American Dietetic Association. This enables a student to apply for a Dietetic Internship following graduation. Completion of these requirements and passing of the Registration Examination for Dietitians meet the requirements for Registered Dietitian (R.D.) credential.

Admission Requirements, Retention & Termination Standards

1. Students must have a minimum program GPA of 2.7 in order to graduate with this major.
2. Students must receive a C or better in all major courses in order to graduate from this major.
3. In order to enroll in a major course, students must have achieved a C or better in the required major prerequisite course(s).
4. Upon receipt of the third C- or lower in a major course, students will not be allowed to complete the major.
5. Students agree to adhere to the DPD Code of Ethics (available at www.nutrition.edu).

Dietetics Core (42 hours)
HEV 160 - Introduction to Foods 3(2-2)
HEV 271 - Food and Culture in the United States 3(3-0)
HEV 361 - Experimental Foods 3(2-2)
HEV 363 - Food Safety and Sanitation 1(1-0)
HEV 365 - Quantity Food Production 2(2-0)
HEV 367 - Institutional Food Production Laboratory 1(0-2)
HEV 370 - Nutrition 3(3-0)
HEV 463 - Menu Planning: Design and Service 3(3-0)
HEV 469 - Foodservice Systems Administration 3(3-0)
HEV 471 - Medical Nutrition Therapy I 3(3-0)
HEV 472 - Medical Nutrition Therapy II 3(3-0)
HEV 473 - Advanced Nutrition 4(4-0)
HEV 474 - Nutrition in the Life Cycle 3(3-0)
HEV 570 - Nutritional Education 4(4-0)
HEV 573 - Field Work: Community Nutrition 3(Spec)

Other Requirements I (5-8 hours)
CHM 120 - Survey of Chemistry 4(4-0)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Note: You must take both CHM 120, 127 OR CHM 131, 132.

Other Requirements II (17 hours)
BIO 208 - Microbiology 3(2-3)
BIO 392 - Mammalian Physiology 4(3-3)
CHM 342 - Survey of Organic Chemistry 4(3-3)
CHM 421 - Survey of Biochemistry 3(3-0)
HSC 544 - Biostatistics 3(2-1)
STA 282 - Introduction to Statistics 3(3-0)

Notes:
• You cannot take both HSC 544 and STA 282.
• A student opting to take CHM 345 and CHM 346 instead of CHM 342 must have the equivalent of CHM 132 as a prerequisite.
• A student with CHM 345 and CHM 346 may elect CHM 521 and CHM 522, instead of CHM 421.

Total: 64-67 semester hours

Foodservice Administration Major
B.A.; B.A.A.; B.S. degrees

Students completing a major in Foodservice Administration are prepared for professional careers as Foodservice Director, Manager or Supervisor in food service settings such as hospitals, extended care facilities, school systems, industrial food services, hotel or restaurant food services and food service companies that sell food or equipment.

Foodservice Administration Core (29 hours)
HEV 160 - Introduction to Foods 3(2-2)
HEV 263 - Beverages In Foodservice 3(3-0)
HEV 271 - Food and Culture in the United States 3(3-0)
HEV 363 - Food Safety and Sanitation 1(1-0)
HEV 365 - Quantity Food Production 2(2-0)
HEV 366 - Quantity Food Production Laboratory 2(0-4)
HEV 370 - Nutrition 3(3-0)
HEV 463 - Menu Planning: Design and Service 3(3-0)
HEV 465 - Foodservice Facilities Design 3(2-2)
HEV 467 - Quantity Food Purchasing 3(3-0)
HEV 468 - Foodservice Internship 3(Spec)

Other Requirements (9 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
HSA 210/MGT 210 - Effective Supervision: Principles and Practices 3(3-0)

Total: 38 Semester hours

Suggested minors include: Hospitality Services Administration (24 hours), Business Administration (24 hours), Management (21 hours), Entrepreneurship (21-22 hours), Nutrition (22-24 hours), Event Management (24 hours),

Family Studies Major
B.A.; B.A.A.; B.S. degrees

This major is designed for students who either plan to enter the human services field upon graduating from CMU, or attend graduate school for advanced education. The program prepares students for careers dealing with adolescent pregnancy prevention, teen parenting, family finance, family life education, families and youth at-risk, and other family-related services. With appropriate graduate education, potential career options include: marriage and family therapy, sexual therapy, family research and/or college instruction.

Students who take this major cannot minor in Family Life and Sexuality.

Admission Requirements, Retention & Termination Standards
1. Student must have a minimum GPA of 2.0 to sign a major.
2. Student must have a minimum program GPA of 2.5 in order to graduate with this major.
3. Student must receive a grade of C+ or better in HEV 419 in order to graduate with this major.

Core Courses (25 hours)
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
HEV 211 - Marriage and Family Perspectives 3(3-0)
HEV 213/WST 213 - Introduction to Human Sexuality 3(3-0)
HEV 291 - Human Environmental Studies: Family Ecology 3(3-0)
HEV 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
HEV 315 - Family Management Theory 3(3-0)
HEV 411 - Family Relations 3(3-0)
HEV 418 - Family Development in Late Life 3(3-0)
LIB 197 - Introduction to Library and Information Research 1(1-0)

Required Courses I (3 hours)
Professional Foundations
HEV 219 - HDFS Field Work 3(1-6)

Required Courses II (6 hours)
Professional Methods
Two courses selected from the following but not BOTH STA 282 and PSY 211:
HEV 319 - HDFS Skills and Methods 3(3-0)
HEV 414 - Human Development and Family Studies Research Methods 3(3-0)
HEV 419 - HDFS Internship 1-12(Spec)
PSY 211 - Introduction to Psychological Statistics 3(3-0)
STA 282 - Introduction to Statistics 3(3-0)

Electives (6 hours)
Select additional hours from the above list or any from the following list.
GRN 247 - Introduction to Gerontology 3(3-0)
HEV 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
HEV 212 - The Family in Cultural Perspective 3(3-0)
HEV 302 - Human Growth and Development: Infancy 3(3-0)
HEV 306 - Human Growth and Development: Adolescence 3(3-0)
(continued)
HEV 511 - Seminar in Human Sexuality 3(3-0)
HEV 513 - Readings in the Family 3(3-0)
HEV 515 - Current Issues in Marriage and the Family 3(3-0)
HEV 517 - Readings in Marital Counseling and Divorce 3(3-0)
HSC 519 - Death Education and Suicide Prevention 3(3-0)
HSC 525 - Sexually Transmitted Disease Workshop 1(Spec)
HSC 526 - Mental Health 3(3-0)
HSC 527 - Sex Education Workshop 1(Spec)
HSC 528 - Smoking and Health Education Workshop 1(Spec)
HSC 529 - Alcohol Education Workshop 1(1-0)
HSC 530 - Drug Abuse Workshop 1(Spec)
HEV 562 - Family Communication 3(0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)
SWK 100 - Introduction to Social Work 3(3-0)
SWK 300 - Crisis Intervention Experience 3(Spec)

**Total: 40 Semester hours**

### Family Studies Major: Life Management Education

**B.S. in Ed. degrees, Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement**

This program is designed to prepare teacher certification candidates with the competencies to achieve an endorsement (KH) in Family and Consumer Sciences.

A vocational endorsement (VH) is available on the secondary certification. If students want to earn a VH endorsement in this area, they need to complete 200 hours of documented, recent, and relevant work experience. A VH endorsement may enable a school to be eligible for government vocational funds. For more information, go to [http://www.courses.cmich.edu/fcs-lme/default.htm](http://www.courses.cmich.edu/fcs-lme/default.htm).

#### Core Courses (25 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>HEV 100 - Human Growth and Development: Lifespan</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 211 - Marriage and Family Perspectives</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 213/WST 213 - Introduction to Human Sexuality</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 291 - Human Environmental Studies: Family Ecology</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 307 - Human Growth and Development: Parent-Child Relations</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 315 - Family Management Theory</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 411 - Family Relations</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 418 - Family Development in Late Life</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>LIB 197 - Introduction to Library and Information Research</td>
<td>1(1-0)</td>
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#### Required Courses (12 hours)

**Teacher Preparation Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>HEV 214 - Consumer Economics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 370 - Nutrition</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 481 - FCS/LME Teaching Methods</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HSC 106 - Healthy Lifestyles</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

#### Electives (3 hours)

Select from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>HEV 110 - Oppression: Roots and Impact on Human Development in the United States</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 212 - The Family in Cultural Perspective</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 302 - Human Growth and Development: Infancy</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 306 - Human Growth and Development: Adolescence</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 511 - Seminar in Human Sexuality</td>
<td>3(3-0)</td>
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<tr>
<td>HSC 519 - Death Education and Suicide Prevention</td>
<td>3(3-0)</td>
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<tr>
<td>HSC 525 - Sexually Transmitted Disease Workshop 1(Spec)</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HSC 527 - Sex Education Workshop 1(Spec)</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HSC 528 - Smoking and Health Education Workshop 1(Spec)</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Interior Design Major

**B.A.; B.A.A.; B.S. degrees**

The Interior Design Program at CMU approaches the detailed design of interiors by drawing on diverse knowledge from various disciplines emphasizing an integrated approach that relates interior design to its larger social and architectural context. Students in the program are prepared to excel in a wide range of careers including commercial and residential design as well as other related areas. A sequence of creative design studios is supported by both theoretical and technical courses and students learn both traditional and digital visual presentation formats.

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

1. A portfolio of visual work including 2-d design, 3-d design and freehand drawing;

**OR**

- Twelve credit hours in Art selected from ART 105 (3); 115 (3); 118 (3); 135 (3); 160 (3); 185 (3); OR 285 (3); prior to beginning studio coursework in the Interior Design Program.

**OR**

- A combination of portfolio work and art coursework.

2. An Interior Design Program Application form, plus: a) transcript showing completion of ART course requirements; OR b) a portfolio of visual work OR a transcript and portfolio must be submitted to the Department of Human Environmental Studies in Wightman 205 for review.

3. Students will be notified of their admissions status by Interior Design faculty and must be formally admitted to the program before taking studio courses (HEV 131, 138, 337, 339, 437) or any course requiring studio courses as prerequisites.

4. Students are permitted to begin selected courses in the Interior Design Program, including: HEV 155, 139, 238, 332 prior to formal admission into the program.

5. A limit of 12 credit hours of 100 and 200 level courses in Interior Design may be transferred to CMU. A review of student work is required.

6. Students must achieve a C or better in all required courses to graduate with this major.

7. Students must achieve a 2.7 program GPA or better to graduate with this major.

**Required Courses (57 hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEV 131 - Interior Design Studio I: Introduction</td>
<td>3(1-4)</td>
</tr>
<tr>
<td>HEV 138 - Visual Communication for Interior Design</td>
<td>3(1-4)</td>
</tr>
<tr>
<td>HEV 139 - Interior Design Drafting</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>HEV 155 - Introduction to Textiles</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>HEV 238 - Design History and Precedent</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 328 - Design History and Criticism</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 332 - Human Shelter and Environment</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 334 - Computer-Aided Design for Interiors</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>HEV 336 - Materials and Components of Interior Design</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 337 - Interior Design Studio II: Residential</td>
<td>3(1-4)</td>
</tr>
<tr>
<td>HEV 338 - Internship Preparation for Interior Design</td>
<td>1(Spec)</td>
</tr>
<tr>
<td>HEV 339 - Interior Design Studio III: Special User Groups</td>
<td>3(1-4)</td>
</tr>
<tr>
<td>HEV 432 - Seminar in Interior Design</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 433 - Professional Practices in Interior Design</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>HEV 434 - Advanced CAD for Interiors</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>HEV 436 - Lighting and Other Mechanical Systems</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>HEV 437 - Interior Design Studio IV: Contract</td>
<td>3(1-4)</td>
</tr>
<tr>
<td>HEV 438 - Interior Design Internship</td>
<td>2(Spec)</td>
</tr>
<tr>
<td>HEV 439 - Interior Design Studio V: Senior Thesis</td>
<td>3(1-4)</td>
</tr>
<tr>
<td>IET 357 - Residential Architectural Graphics</td>
<td>3(1-4)</td>
</tr>
</tbody>
</table>
Total: 57 Semester hours

The Interior Design program has the right to request any student's work for display, publication or permanent use. The department provides minimal supplies and equipment. Students are expected to purchase most of their personal project materials.

Suggested Minors (20-24 hours): Art, Art History, Business Administration, Foodservice Administration, Gerontology, History, Hospitality Services Administration, Industrial Technology, Journalism, Management, Marketing, Psychology, Retailing, Sociology.

Minors

Apparel Merchandising and Design Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

Required Courses I (3 hours)
- Select one of the following:
  - HEV 140 - Introduction to Apparel Construction 3(2-2)
  - HEV 250 - Apparel Evaluation 3(2-2)

Required Courses II (6 hours)
- HEV 141 - Apparel Design: Analysis 3(3-0)
- HEV 155 - Introduction to Textiles 3(2-2)

Electives (15 hours)
- 15 hours of elective courses to be selected in consultation with a departmental advisor, 12 of which must be from the area of apparel merchandising and design.

Total: 24 semester hours

Child Development Minor
B.S. in Ed. degree, Provisional Elementary Certification, or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

The Child Development Minor is designed to provide students with an interdisciplinary approach to the study of children. The growth and development of children within the preschool and elementary years is examined within the context of working with children in educational settings. Students who complete this minor may take the Michigan Early Childhood Examination. Successful completion of this examination results in the addition of the Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement. The Child Development Minor is designed to complement a large number of majors, particularly those that prepare students to work in health and human service settings. Advisors for this minor are located in the Department of Human Environmental Studies or the Department of Teacher Education and Professional Development.

Admission Requirements, Retention & Termination Standards
1. A minimum 2.7 GPA (B-) must be earned in all teaching minors.
2. A minimum 2.5 GPA and completion of (or enrollment in) one of the following courses (HEV 100, EDU 280, or PSY 220) are required for authorization in this minor.
3. HEV 402 is a departmental methods course and must be completed with a grade of C+ or better before student teaching.

Required Courses I (3 hours)
- Select one of the following:
  - EDU 280 - Education of Children 3(3-0)
  - HEV 100 - Human Growth and Development: Lifespan 3(3-0)
  - PSY 220 - Developmental Psychology 3(3-0)

Required Courses II (17 hours)
- EDU 525 - Early Childhood Education 3(3-0)
- HEV 302 - Human Growth and Development: Infancy 3(3-0)
- HEV 303 - Human Growth and Development: Early Childhood 4(3-2)
- HEV 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
- HEV 402 - Human Growth and Development: Guidance for Young Children 4(Spec)

Other Requirements (3 hours)

Diversity Courses
- Select one of the following:
  - ANT 200 - Education and Culture 3(3-0)
  - CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
  - CDO 438 - Language Disorders in Special Education Populations 3(3-0)
  - HEV 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
  - SPE 126 - Introduction to Special Education 3(3-0)
  - SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Electives (2-3 hours)
- Select one of the following:
  - ASL 101 - American Sign Language, Level I 3(3-0)
  - ASL 102 - American Sign Language, Level II 3(3-0)
  - ENG 381 - Children’s Literature 3(3-0)
  - HEV 211 - Marriage and Family Perspectives 3(3-0)
  - HEV 212 - The Family in Cultural Perspective 3(3-0)
  - HSC 205 - Responding to Emergencies 2(1-2)
  - IET 232 - Technology for Children 2(1-2)
  - MUS 134 - Music In Early Childhood 3(3-0)
  - MUS 534 - Music for Pre-School Children 2(2-0)
  - RPL 206 - Recreation Activities Leadership 3(3-0)
  - SOC 411 - The Family 3(3-0)
  - TAI 373 - Oral Interpretation for Children 3(3-0)
  - TAI 585 - Creative Dramatics 3(2-2)

Total: 25-26 semester hours

Family Life and Human Sexuality Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.

This minor is designed to complement a large number of majors, particularly those that prepare students to work in health and human service settings. Advisors for this minor are located in the Department of Human Environmental Studies.

Admission Requirements, Retention & Termination Standards
1. Student must have a minimum GPA of 2.0 to sign a minor.
2. Students must have a minimum program GPA of 2.5 in order to graduate with this minor.

Required Courses I (3 hours)
- Select one of the following:
  - EDU 280 - Education of Children 3(3-0)
  - HEV 100 - Human Growth and Development: Lifespan 3(3-0)
  - PSY 220 - Developmental Psychology 3(3-0)

Required Courses II (3 hours)
- Select one of the following:
  - HEV 211 - Marriage and Family Perspectives 3(3-0)
  - HEV 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
  - HEV 315 - Family Management Theory 3(3-0)
  - HEV 411 - Family Relations 3(3-0)

Electives (6 hours)
- To be selected with the approval of an advisor
  - COM 562 - Family Communication 3(3-0)
  - HEV 212 - The Family in Cultural Perspective 3(3-0)
  - HEV 306 - Human Growth and Development: Adolescence 3(3-0)
  - HEV 381 - Education for Family Life and Human Sexuality 3(3-0)
  - HEV 413 - Facilitating Discussion in Human Sexuality Groups 3(3-0)
  - HSC 523 - AIDS Education 1(1-0)

(continued)
HSC 524 - Workshop on Health Fitness 2(Spec)
HSC 525 - Sexually Transmitted Disease Workshop 1(Spec)
HSC 526 - Mental Health 3(3-0)
HSC 527 - Sex Education Workshop 1(Spec)
HSC 528 - Smoking and Health Education Workshop 1(Spec)
HSC 529 - Alcohol Education Workshop 1(1-0)
HSC 530 - Drug Abuse Workshop 1(Spec)
PES 143 - Sexual Assault and Harassment/Awareness and Avoidance 2(2-0)
PSY 350 - Clinical Interviewing and Counseling 3(3-0)

Total: 24 semester hours

Gerontology Minor
B.A.; B.A.A.; B.S. in B.A. degrees

This is an interdisciplinary minor. Please check the index for the page number.

Foodservice Administration Minor

Required Courses (20 hours)
HEV 160 - Introduction to Foods 3(2-2)
HEV 263 - Beverages In Foodservice 3(3-0)
HEV 363 - Food Safety and Sanitation 1(1-0)
HEV 365 - Quantity Food Production 2(2-0)
HEV 366 - Quantity Food Production Laboratory 2(0-4)
HEV 370 - Nutrition 3(3-0)
HEV 463 - Menu Planning: Design and Service 3(3-0)
HEV 467 - Quantity Food Purchasing 3(3-0)

Electives (9 hours)
Select one of the following:
HEV 271 - Food and Culture in the United States 3(3-0)
HEV 465 - Foodservice Facilities Design 3(2-2)
HEV 468 - Foodservice Internship 3(Spec)

Total: 23 Semester hours

Human Development Minor
B.A.; B.A.A.; B.S. degrees

The minor is designed to complement a wide variety of majors selected by students interested in working with individuals in family and human service settings. Due to the variability in students' goals for completing the minor, all students are encouraged to see an advisor prior to beginning the course work. The minor is authorized by a designated advisor in the Department of Human Environmental Studies. Enrollment in HEV 100 and a minimum GPA of 2.0 are required for authorization of the minor.

Admission Requirements, Retention & Termination Standards
1. Students must have a minimum GPA of 2.0 to sign the Human Development minor.
2. Students must have a minimum program GPA of 2.5 in order to graduate with this minor.

Required Courses I (6 hours)
Growth and Development
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
HEV 308 - Human Growth and Development: Theory 3(3-0)

Required Courses II (3 hours)
Growth and Development
Select at least one of the following courses:
HEV 302 - Human Growth and Development: Infancy 3(3-0)
HEV 303 - Human Growth and Development: Early Childhood 4(3-2)
HEV 306 - Human Growth and Development: Adolescence 3(3-0)
HEV 418 - Family Development in Late Life 3(3-0)
HEV 516 - Family Development: Early Adulthood/Middle Age 3(3-0)

Required Courses III (3 hours)
Family within a Developmental Context
Select at least one of the following courses:
HEV 211 - Marriage and Family Perspectives 3(3-0)
HEV 291 - Human Environmental Studies: Family Ecology 3(3-0)
HEV 307 - Human Growth and Development: Parent-Child Relations 3(3-0)

Required Courses IV (3 hours)
Diversity within a Developmental Context
Select at least one of the following courses:
HEV 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
HEV 212 - The Family in Cultural Perspective 3(3-0)
HEV 318 - Indigenous Families and Survival: A Global Perspective 3(3-0)
SPE 126 - Introduction to Special Education 3(3-0)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Note: You may count either SPE 126 OR SPE 550, not both.

Electives (9 hours)
Any course not used from the above list to fulfill requirements may be used for elective credit. Additionally approved electives include:
CDO 130 - Normal Speech and Language Acquisition 3(3-0)
CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
ENG 381 - Children's Literature 3(3-0)
GRN 247 - Introduction to Gerontology 3(3-0)
HEV 213/WST 213 - Introduction to Human Sexuality 3(3-0)
HEV 315 - Family Management Theory 3(3-0)
HEV 370 - Nutrition 3(3-0)
HEV 490 - Independent Study 1-6(Spec)
HEV 497 - Special Topics 1-5(Spec)
HEV 506 - Human Growth and Development: Practicum in Parent Involvement 3(2-2)
HEV 508 - Human Growth & Development: Preschool Administration 3(3-0)
HEV 510 - Human Growth and Development: Seminar 3(3-0)
HSC 205 - Responding to Emergencies 2(1-2)
HSC 519 - Death Education and Suicide Prevention 3(3-0)
HST 221 - Growing Up in America 3(3-0)
IET 232 - Technology for Children 2(1-2)
HST 221 - Growing Up in America 3(3-0)
PSY 322 - Psychology of Infancy and Early Childhood 3(3-0)
PSY 324 - Childhood and Adolescence 3(3-0)
PSY 325 - Psychology of Aging 3(3-0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)
RPL 206 - Recreation Activities Leadership 3(3-0)
SOC 222 - Juvenile Delinquency 3(3-0)
SOC 320 - Sociology of Aging and Retirement 3(3-0)
SOC 412 - Sociology of Adolescence 3(3-0)
TAI 373 - Oral Interpretation for Children 3(3-0)
TAI 585 - Creative Dramatics 3(2-2)

Note: Select only one of: CDO 130 OR 230; GRN 247 OR PSY 325 OR SOC 320; PSY 322 OR 324; SOC 222 OR 412; TAI 373 OR 585.

Total: 24-25 semester hours
Nutrition Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

Required Course (3 hours)
HEV 370 - Nutrition 3(3-0)

Electives (19-21 hours)
Select from the following in consultation with an advisor:
HEV 160 - Introduction to Foods 3(2-2)
HEV 271 - Food and Culture in the United States 3(3-0)
HEV 375 - Nutrition and Performance 3(3-0)
HEV 470 - Applied Nutrition 3(3-0)
HEV 474 - Nutrition in the Life Cycle 3(3-0)
HEV 475 - Nutritional and Herbal Supplements 3(3-0)
HEV 477 - Assessing Nutritional Status 2(1-2)
HEV 490 - Independent Study 1-6(Spec)
HEV 575/GRN 575 - Geriatric Nutrition 3(3-0)
HEV 577 - Advanced Topics in Nutrition: Eating Disorders 3(3-0)
HSC 503 - Health Implications of Obesity 3(3-0)

Total: 22-24 semester hours

Recreation, Parks, and Leisure Services Administration (RPL)
For information, please contact the chairperson, 774-3858, 214 Finch; www.rpl.cmich.edu

Why Study Recreation, Parks, and Leisure Services Administration?
Americans spend approximately one-third of their lives enjoying some type of leisure experience. With increasing life spans, shorter work weeks and longer and more intensive vacations, the amount of time spent in leisure continues to increase.

The dollars spent on leisure make a substantial contribution to the economy. It is predicted that by the year 2010, recreation/travel/tourism may comprise the largest expenditure of our economy, larger than either defense or health care. Professionals in recreation, parks, and leisure service administration are trained to help others utilize leisure time intelligently. As recreation and park administration personnel, they contribute immeasurably to an improved quality of life for others through creative and well-planned use of leisure time.

Recreation, Parks, and Leisure Services Administration at CMU
CMU offers the first professionally accredited major in the field of recreation, parks, and leisure services administration in the state of Michigan. Students may select one of four major areas of concentration offered by the Department; these include commercial recreation and facility management, community leisure services administration, outdoor and environmental recreation, and therapeutic recreation. The commercial recreation and facility management concentration prepares the student to work in the tourism industry and other commercial ventures (theme and amusement parks, entertainment and sports venues, resorts, multi-purpose recreation centers). The community leisure services administration option prepares the student to work in a public or quasi-public agency (YMCA's, Girl/Boy Scouts, city parks and recreation departments). The student with an outdoor and environmental recreation concentration would be prepared for employment in camp administration, nature interpretation, and county, state, and/or national parks. The therapeutic recreation option prepares the student to work with persons with illness or disability utilizing recreation activity as a therapeutic or treatment intervention. Students obtaining degrees in therapeutic recreation may be employed within hospitals (rehabilitation, psychiatric, substance abuse), residential facilities, geriatric agencies and/or community recreation and parks departments.

Regardless of the concentration selected, students majoring in recreation and leisure services will be required to enroll in a common core of courses that will emphasize the philosophical framework of the profession. Students will acquire professional competencies to effectively design, organize, implement, manage, administer, and/or evaluate recreational programming assuring it effectively meets the diverse needs of the individuals or community serviced. The department places a strong emphasis on the practical aspects of a student’s training by offering an extensive internship program which is completed following the completion of professional coursework. The combination of the professional internship and our curriculum provides the student with the competencies necessary to direct and/or administer leisure services supporting individual, family, and community wellness assuring an enhanced quality of life for all.

The Faculty
Eric Buschlen, Roger Coles, Lynn Dominguez, Al Ellard, Robert Frost, Suzanne Gareiss, Patricia Janes, Tim Otteman, Dean Pybus, Mary Lou Schilling, Rob Schumacker, Lori Stoudt, Dean Wallin
Recreation, Parks, and Leisure Services Administration Major

Choose one of the following concentrations:

Commercial Recreation and Facility Management Concentration

B.A.A. degree

An internship and a minor or equivalent from the College of Business Administration is required on this concentration. Other appropriate minors may be considered only through consultation and approval from the departmental advisor.

Required Professional Core Courses (54 hours)
RPL 118 - Introduction to Recreation 2(2-0)
RPL 261 - Introduction to Private and Commercial Recreation 3(3-0)
RPL 307 - Management Skills in Leisure Services 3(3-0)
RPL 310 - Pre-Internship in Leisure Services 1(1-0)
RPL 320 - Internship Recreation 6-30(Spec)
RPL 430 - Recreation Programming 3(3-0)
RPL 508 - Budgeting for Leisure Service Agencies 3(3-0)
RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
RPL 518 - Research & Philosophy in RPL 3(3-0)
RPL 545 - Marketing of Leisure Services 3(3-0)

Note: RPL 310 must be taken two semesters prior to internship; RPL 518 must be taken one semester prior to internship.

Electives (6 hours)
Chosen from RPL courses in consultation with advisor.

Total: 60 Semester hours

Community Leisure Services Administration Concentration

B.A.; B.A.A.; B.S. degrees

An internship and a minor chosen in consultation with an advisor are required on this concentration.

Required Professional Core Courses (48-63 hours)
RPL 118 - Introduction to Recreation 2(2-0)
RPL 204 - Community Recreation 3(3-0)
RPL 206 - Recreation Activities Leadership 3(3-0)
RPL 310 - Pre-Internship in Leisure Services 1(1-0)
RPL 320 - Internship Recreation 6-30(Spec)
RPL 405 - Administration of Recreation and Parks 3(3-0)
RPL 420 - Planning and Facility Design for Leisure 3(3-0)
RPL 430 - Recreation Programming 3(3-0)
RPL 508 - Budgeting for Leisure Service Agencies 3(3-0)
RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
RPL 518 - Research & Philosophy in RPL 3(3-0)
RPL 521 - Fund Development & Grant Writing for Public & Non-Profit Organizations 3(3-0)
RPL 545 - Marketing of Leisure Services 3(3-0)

Notes:

• RPL 310 must be taken two semesters prior to the internship.
• RPL 518 must be taken one semester prior to the internship.
• The internship (RPL 320) is a capstone field experience following completion of all course work at the university. Students electing a B.A. or B.S. degree will complete a fifteen (15) credit internship. Students electing a B.A.A. degree will complete a thirty (30) credit internship.

Electives (3 hours)
Select from the following courses for a total of three (3) credits:
RPL 210 - Recreation for Diverse Populations 3(3-0)
RPL 218 - Teaching of Outdoor Skills 3(3-0)
RPL 346 - Recreation for Senior Citizens 3(3-0)
RPL 406 - Seminar in Recreation and Park Administration 3(3-0)
RPL 436 - Recreation Facility Operations 3(3-0)
RPL 470 - Park Management 3(3-0)
RPL 499 - Independent Research in Leisure Services 1-3(Spec)

OR other RPL course chosen in consultation with advisor.

Total: 51-66 semester hours

Outdoor and Environmental Recreation Concentration

B.A.; B.S.; B.A.A. degrees

An internship and minor are required on this concentration. A minor or equivalent in Natural Resources, Earth Science, Geology, or Environmental Studies (B.A.A. degree only) is preferred; other minors may be considered only through consultation and approval from a departmental advisor.

Required Professional Core Courses (42-57 hours)
RPL 118 - Introduction to Recreation 2(2-0)
RPL 205 - Outdoor Leadership 3(3-0)
RPL 210 - Recreation for Diverse Populations 3(3-0)
RPL 216 - Introduction to Outdoor Recreation 3(3-0)
RPL 310 - Pre-Internship in Leisure Services 1(1-0)
RPL 320 - Internship Recreation 6-30(Spec)
RPL 358 - Foundations of Outdoor and Environmental Education 3(3-0)
RPL 470 - Park Management 3(3-0)
RPL 508 - Budgeting for Leisure Service Agencies 3(3-0)
RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
RPL 518 - Research & Philosophy in RPL 3(3-0)

Notes: RPL 310 must be taken two semesters prior to actual internship. RPL 320 is a capstone experience following the completion of all other course work at the university. Students electing the B.A. or B.S. degree plans will complete a fifteen (15) credit internship. Students electing the B.A.A. degree plan will complete a thirty (30) credit internship.

Additional Requirements (6 hours)
Through consultation with an advisor, the student will select from the following classes for a total of six (6) credits:
RPL 218 - Teaching of Outdoor Skills 3(3-0)
RPL 359 - Advanced Expedition Planning 3(3-0)
RPL 420 - Planning and Facility Design for Leisure 3(3-0)
RPL 435 - Leadership in Adventure Education Programming 3(3-0)
RPL 521 - Fund Development & Grant Writing for Public & Non-Profit Organizations 3(3-0)
RPL 552 - Environmental Interpretation 3(3-0)

Electives (3 hours)
Select any RPL course.

Total: 51-66 semester hours
Therapeutic Recreation Concentration
B.A.; B.A.A.; B.S. degrees

The goal of the Therapeutic Recreation concentration is to prepare students to serve as competent practitioners in the role of Certified Therapeutic Recreation Specialists. This concentration is nationally accredited by the National Recreation and Park Association. Students in this program develop skills to work with a variety of special populations in diverse health care settings.

In addition to structured coursework a strong emphasis is placed on practical training via numerous volunteer placements and a full-time clinical internship under a certified therapeutic recreation specialist. Upon completion of all coursework and professional internship, the student is eligible to sit for the national certifying examination administered by the National Council for Therapeutic Recreation Certification.

Academic advisors work closely with students in the selection and scheduling of courses to assure timely completion of degree and major requirements.

Required Courses I (48-63 hours)
HSC 211 - Human Anatomy and Physiology 3(3-0)
PSY 250 - Abnormal Psychology 3(3-0)
RPL 118 - Introduction to Recreation 2(2-0)
RPL 206 - Recreation Activities Leadership 3(3-0)
RPL 210 - Recreation for Diverse Populations 3(3-0)
RPL 310 - Pre-Internship in Leisure Services 1(1-0)
RPL 320 - Internship Recreation 15-30(Spec)
RPL 341 - Therapeutic Recreation: Physical Disabilities 3(3-0)
RPL 342 - Therapeutic Recreation: Emotional Impairments 3(3-0)
RPL 345 - Therapeutic Recreation: Gerontology 3(3-0)
RPL 518 - Research & Philosophy in RPL 3(3-0)
RPL 580 - Programming for Therapeutic Recreation 3(3-0)
RPL 581 - Therapeutic Recreation Issues and Trends 3(3-0)

Note: RPL 320 - Students seeking a B.S. or B.A. degree will complete a one semester 15 credit hour internship in a clinical setting.

Students seeking a B.A.A. degree will complete a 30 hour internship (in two unique settings, one of which must be clinical).

Required Courses II (3 hours)
Select one of the following:
HEV 100 - Human Growth and Development: Lifespan 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)

Electives (3 hours)
One of the following OR 3 hours in RPL coursework in consultation with advisor:
RPL 340 - Therapeutic Recreation: Developmental Disabilities 3(3-0)
RPL 344 - Therapeutic Recreation: Alcohol and Drug Dependency 3(3-0)

Total: 54-69 semester hours

Minors

A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Recreation Minor
B.A.; B.A.A.; B.S. degrees

Required Courses I (5 hours)
RPL 118 - Introduction to Recreation 2(2-0)
RPL 206 - Recreation Activities Leadership 3(3-0)

Required Courses II (3 hours)
Select one of the following:
RPL 204 - Community Recreation 3(3-0)
RPL 210 - Recreation for Diverse Populations 3(3-0)
RPL 216 - Introduction to Outdoor Recreation 3(3-0)
RPL 261 - Introduction to Private and Commercial Recreation 3(3-0)

Required Courses III (3 hours)
Three credit hours of field coursework from one or more of the following:
RPL 314 - Field Course in Commercial Recreation 1-5(Spec)
RPL 315 - Field Course in Municipal Recreation 1-5(Spec)
RPL 316 - Field Course in Therapeutic Recreation 1-5(Spec)
RPL 317 - Field Course in Camping 1-5(Spec)
RPL 318 - Field Course in Recreation Specialization 1-5(Spec)
RPL 319 - Field Course in Park Operations 1-5(Spec)

Electives (10 hours)
Chosen in consultation with advisor. The advisor must approve all electives prior to enrolling in elective courses.

Total: 21 semester hours

Note: Credit/No credit courses may be applied up to a total of ten semester hours on a major or minor. All Credit/No Credit classes must be 100 or 200 level except those offered on a Credit/No Credit only basis at the 300, 400, or 500 level.

Event Management Minor
B.A., B.A.A., B.S., B.S.B.A. degrees

The program provides students with the combination of skills and knowledge needed to be successful as an event manager in a range of event planning settings. Event managers are found in education, government, private business and industry, and the non-profit sectors. Skills and knowledge derived from this minor will enhance a student’s marketability and employability in numerous settings. The program consists of a core of 18 semester hours including coursework in recreation programming, special event administration, meeting and exposition planning, along with an introduction to lodging operations and foods. All minors complete a 2 credit hour field experience in which they work with an organization or agency to plan and implement an event. Students also select 6 semester hours of elective coursework from a list of approved electives.

Core Courses (18 hours)

Note: All minors must complete a 2 credit hour field experience
– RPL 314
HEV 160 - Introduction to Foods 4(2-4)
HSA 350 - Lodging Operations 3(3-0)
RPL 314 - Field Course in Commercial Recreation 1-5(Spec)
RPL 430 - Recreation Programming 3(3-0)
RPL 438 - Meeting and Exposition Planning 3(3-0)
RPL 440 - Special Event Administration 3(3-0)

Electives (6 hours)
HSA 445 - Advanced Food and Beverage Systems Management 3(3-0)
JRN 350 - Public Relations Principles and Practices 3(3-0)

(continued)
Outdoor and Environmental Education

Minor

B.A.; B.A.A.; B.S.; B.S. in Ed., Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Required Courses (15 hours)
RPL 216 - Introduction to Outdoor Recreation 3(3-0)
RPL 218 - Teaching of Outdoor Skills 3(3-0)
RPL 318 - Field Course in Recreation Specialization 1-5(Spec)
RPL 358 - Foundations of Outdoor and Environmental Education 3(3-0)
RPL 552 - Environmental Interpretation 3(3-0)

Electives (6 hours)
Chosen in consultation with advisor. The advisor must approve all electives prior to enrolling in any elective classes.

Total: 21 semester hours

Credit/No credit courses may be applied up to a total of ten semester hours on a major or minor. All Credit/No Credit classes must be 100 or 200 level except those offered on a Credit/No Credit only basis at the 300, 400, or 500 level.

Leadership Minor

B.A., B.A.A., B.S. degrees

This is an interdisciplinary minor. Please check the index for the page number.
Teacher Education and Professional Development  
(EDU, LMT, MLE)

For information, please contact the chairperson, 774-3976, 208 Ronan Hall; [http://www.tepd.cmich.edu](http://www.tepd.cmich.edu)

For specific questions concerning the teacher education program, please see the Teacher Education Program Information web page at [http://www.tepd.cmich.edu](http://www.tepd.cmich.edu)

The Study of Education at CMU

Central Michigan University's teacher education program seeks to provide the preparation required to establish a professional practice which is knowledge-driven, learner-centered, and relevant to the multiple contexts in which the modern educator must function: the classroom, the multi-disciplinary school-based team, and the broader community. The Department of Teacher Education and Professional Development contributes to this mission through courses and programs with the following specific objectives:

1. To provide the professional education coursework needed by students preparing to teach in the K-12 classrooms in Michigan.
2. To provide undergraduate and graduate students in the selection of programs and courses.
3. To provide coursework for graduate students seeking a master's degree.
4. To direct graduate students in independent studies, readings, field studies, and theses.

The departmental programs are composed of elementary education, secondary education, early childhood and elementary education, middle level education, reading in elementary grades. The department also offers coursework in several interdisciplinary/interdepartmental majors and minors, including child development, language arts minor, bilingual bicultural - Spanish minor, bilingual bicultural - Ojibwe minor, and the planned program minor.

The Faculty


Departmental Programs

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

**Advisement**

Students interested in teaching in the elementary and secondary grades may contact the College of Education and Human Service Center for Student Services (RN 204) for pre-admission advising. This service assists students in determining the appropriateness of their career plans and provides information about the enrollment management program for selecting the best qualified students to enter the teacher education program. The Teacher Education Student Handbook, which answers many student questions about the program, may be obtained from the University Center Bookstore, or downloaded from the Center for Student Services' website ([http://www.ehs.cmich.edu/css](http://www.ehs.cmich.edu/css)).

**Application**

Eligibility requirements for selection into Teacher Education are discussed in the Bulletin under Standards Leading to Teacher Certification. Students must apply and be selected for admission into the Teacher Education Program before becoming eligible to enroll in professional education courses. After being admitted into teacher education, a student has five years in which to complete requirements for graduation; otherwise he or she must reapply for the program. The application for teacher education is available in Teacher Education Student Handbook, or downloadable from the Center for Student Services’ website ([http://www.ehs.cmich.edu/css](http://www.ehs.cmich.edu/css)).

**Student Teaching**

For additional information, contact Larry Corbett, Director of Student Teaching, 774-4411.

The Department of Teacher Education and Professional Development offers the field-based professional education courses required for the State of Michigan’s Elementary and Secondary Professional Teaching Certificates.

As a student teacher, you will be placed in one of the CMU Student Teaching Centers within the state. There are also opportunities to student teach for an eight-week period in England or Ghana during the fall semester or in Australia or the Dominican Republic during the spring semester.

**Application.** You should apply to student teach in the semester preceding the one in which you wish to student teach. The application process begins with a meeting you are required to attend on the first Thursday of the semester. All student teaching information is posted at [http://www.tepd.cmich.edu](http://www.tepd.cmich.edu).

Before final assignments are made for student teaching, students must complete the requirements for Cycle II. These include approval in all majors and minors, an overall GPA of 2.7 or higher, a 2.7 or higher GPA in each major and minor, departmental approval for each major and minor, and a C+ or higher in all methods or professional education classes. Note that “Incompletes” are NOT acceptable in any methods or professional education classes. Once you are approved to student teach, TEPD will register you for EDU 432 and EDU 458. Students who are pursuing special education endorsements should contact the Counseling and Special Education Department for specific information regarding special education student teaching.
Professional education courses must be completed before student teaching. These courses are:

**Elementary:** EDU 107, 280, 290, 320, 330, 343, 345, 361, 431, 493, 495, and SPE 504.

**Secondary:** EDU 107, 290, 310, 325, 450, 495, and SPE 504.

After your application is received, you will be assigned to one of the student teaching centers. Then you will be interviewed by a coordinator from that center, who will secure a placement for you.

Students may not secure their own placements.

Secondary students must successfully complete the Michigan Teacher Competency Testing Program examinations in their major and minor areas. Elementary students must complete the general elementary education MTTC examination and complete extra examinations in their major and minor fields for endorsements.

**Teacher Certification**

See page 127 Standards Leading to Teacher Certification. Students must fulfill all requirements listed for Admission to Teacher Education Programs as specified in the Standards Leading to Teacher Certification section of this Bulletin. Students interested in certification regulations should contact the College of Education and Human Services Center for Student Services immediately.

As of April, 1987 "General Elementary Certification Endorsement" means an authorization to teach in grades kindergarten to and including grade five in all subjects and in major and minor areas of preparation in grades six through eight and K-8, if in a self-contained classroom. The Michigan Secondary Provisional Teacher’s Certificate qualifies the graduates to teach in their major and minor fields in grades seven through twelve.

**Secondary Education**

*B.S. in Ed. Degree leading to Provisional Secondary Certification*

The Secondary Education Undergraduate Program offers professional education courses applicable to State of Michigan requirements for the Secondary Provisional Certificate. You will need to follow the requirements of the Bachelor of Science in Education degree with provisional secondary certification.

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

See the information at the beginning of this section.

Professional education requirements for students who intend to teach in grades seven to twelve are detailed in the Bachelor of Science in Education (B.S. in Ed) degree.

You should seek advising help from the Center for Student Services, 204 Ronan Hall. Admission requirements are detailed in the Teacher Education Student Handbook or at [http://www.ehs.cmich.edu/css/](http://www.ehs.cmich.edu/css/).

**Elementary Education**

*B.S. in Ed. Degree leading to Provisional Elementary Certification*

The Elementary Education Undergraduate Program offers professional education courses applicable to State of Michigan Requirements for the Elementary Provisional Certificate. You will need to follow the requirements of the Bachelor of Science in Education degree with provisional elementary certification.

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

See the information at the beginning of this section.

Professional education requirements for students who intend to teach in kindergarten through eighth grade are detailed in the Bachelor of Science in Education (B.S. in Ed) degree.

You should seek advising help from the Center for Student Services, 204 Ronan Hall. Admission requirements are detailed in the Teacher Education Student Handbook or at [http://www.ehs.cmich.edu/css/](http://www.ehs.cmich.edu/css/).

### Additional Endorsement Programs

#### Early Childhood and Elementary Education

Professional education requirements for students of early childhood and elementary education are detailed under the Bachelor of Science in Education (B.S. in Ed.) degree. You should seek advising help from the Center for Student Services, 204 Ronan Hall. Admission requirements are detailed in the Teacher Education Student Handbook or at [http://www.ehs.cmich.edu/css/](http://www.ehs.cmich.edu/css/).

#### Reading in the Elementary Grades Minor

**B.S. in Ed. degree, Provisional Elementary Certification or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement**

This minor may be used by students following the B.S. in Ed. degree, provisional elementary certification. It consists of 24 hours of course work in reading and related disciplines.

This minor is a multidisciplinary selection of courses intended to prepare the student to teach reading in elementary and intermediate grades. It provides a working knowledge of developmental, remedial, and corrective reading. This minor may not be combined with a language arts major.

The Reading minor is offered by the Department of Teacher Education and Professional Development and the minor is signed by an advisor in the department. A minimum 2.7 GPA (B-) must be earned in all teaching minors. In addition, 75 percent of the minor (18 hours) must be completed prior to student teaching.

**Required Courses (15 hours)**

- EDU 330 - Reading in the Elementary School 3(3-0)
- EDU 431 - Corrective Reading in the Classroom 3(3-0)
- EDU 532 - Reading in the Content Areas 3(3-0)
- EDU 533 - Diagnosis and Treatment of Reading Difficulties 3(2-3)
- EDU 538 - Coordination of the Language Arts with Reading 3(3-0)

**Electives (9 hours)**

Select from the following in consultation with the advisor.

**Electives I (0-3 hours)**

Select no more than one of the following:
- CDO 130 - Normal Speech and Language Acquisition 3(3-0)
- ENG 175 - The Nature of Language 3(3-0)
- ENG 375 - Introduction to Linguistics 3(3-0)

**Electives II (0-3 hours)**

Select no more than one of the following:
- ENG 481 - International Literature for Children and Young Adults 3(3-0)
- ENG/LMT 580 - Literature for Young Adults 3(3-0)
- ENG 582 - Cultural Pluralism in Young Adult and Children’s Literature 3(3-0)

**Electives III (0-6 hours)**

Select no more than two of the following:
- CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
- EDU 506 - Principles and Techniques for Individualizing Instruction 3(3-0)
- MLE 570 - Issues in Middle Level Education 1-3(Spec)
- SPE 550 - Teaching Culturally Diverse Students 3(3-0)
- SPE 577 - Introduction to Specific Learning Disability 3(3-0)

**Electives IV (0-6 hours)**

Select no more than two of the following:
- EDU 528 - Emergent Literacy: Theory and Practice 3(3-0)
- EDU 540 - Literacy Education: Theory and Practice 3(3-0)
- LMT 590 - Media for Children 3(3-0)
- TAI 373 - Oral Interpretation for Children 3(3-0)

**Total:** 24 semester hours
Middle Level Education Minor

B.S. in Ed., Provisional Elementary or Secondary Certification, or Provisional Secondary Certification leading to a middle level endorsement

Notes: This minor may be used by students following the B.S. in Ed. Degree, provisional elementary certification. It consists of 24 hours of course work in middle level education and related disciplines. Students on the Bachelor of Science in Education, provisional elementary certification, who choose this minor, must also select two curriculum area minors or a curriculum area major and a minor in addition to this minor.

Students on the Bachelor of Science in Education, provisional secondary certification program must select this minor in addition to their curriculum area major and minor. Students must select two curriculum areas (subject to advisor approval) which are broad and multidisciplinary, and encompass the major areas within those fields.

Completing the Middle Level Education Minor will also qualify the student for a Michigan Middle Level Endorsement on a Provisional Elementary or Secondary Teaching Certificate.

Required Courses (15 hours)
MLE 381 - Needs and Characteristics of Young Adolescents 3(3-0)
MLE 382 - Middle Level School Concept, Structures, Programs 3(3-0)
MLE 383 - Student Diversity in the Middle Level Classroom 3(3-0)
MLE 384 - Meeting the Diverse Needs of Learners in the Middle Level Classroom 3(3-0)
MLE 385 - Curriculum in the Middle Level School 3(3-0)

Required Courses II (3 hours)
Select one of the following:
SPE 126 - Introduction to Special Education 3(3-0)
SPE 504 - Teaching Students in Inclusive Settings 3(3-0)

Electives (6 hours)
Select two of the following:
COM 569 - Communication in the Classroom 3(3-0)
EDU 290 - Technology in Education 3(1-4)
EDU 595 - Telecommunication in Education 3(2-2)
ENG/LMT 580 - Literature for Young Adults 3(3-0)
MLE 570 - Issues in Middle Level Education 1-3(Spec)

Total: 24 semester hours

Planned Program Minor

B.S. in Education Degree, Provisional Elementary Certification

Note: The planned Program Minor offers skills and understandings for teaching in elementary schools. Students electing to pursue an elementary education program and electing a three-minor option may choose the Planned Program minor as one of their options. The following courses comprise the Planned Program Minor.

Required Courses (21 hours)
ART 345 - Art in the Elementary School 3(3-0)
EDU 320 - Elementary Mathematics Methods 3(3-0)
EDU 343 - Social Studies Methods in Elementary Education 3(3-0)
EDU 345 - Science Methods in Elementary Education 3(3-0)
EDU 493 - Learning and Evaluation in Elementary Education 3(3-0)
MUS 330 - Music for Elementary Classroom Teachers 3(3-0)
PES 310 - Physical Education for the Classroom 3(Spec)

Other Requirement (3-5 hours)
Select one of the following options:

Option A
EDU 290 - Technology in Education 3(1-4)

Option B
IET 232 - Technology for Children 2(1-2)
IET 532 - Careers and Technology for Children 3(2-2)

Total: 24-26 Semester Hours

Interdisciplinary Majors and Minors

Language Arts Major
The Language Arts Major prepares you to teach this integral component of the elementary classroom. Requirements are outlined in the Interdisciplinary Majors and Minors Section. Confer with an advisor in elementary education.

Language Arts Minor
The Language Arts Minor offers skills and understanding of the role of language arts in the elementary classroom. Requirements are outlined in the Interdisciplinary Majors and Minors Section. Confer with an advisor in elementary education.

Bilingual Bicultural Education - Spanish Minor
This minor prepares you to teach children of Spanish-speaking background who have limited English language skills. Requirements are outlined in the Interdisciplinary Majors and Minors Section. Confer with an advisor in elementary education.

Bilingual Bicultural Education - Ojibwe Minor
This minor prepares you to teach children of Ojibwe heritage. Requirements are outlined in the Interdisciplinary Majors and Minors Section. Confer with an advisor in elementary education.
The Herbert H. and Grace A. Dow College of Health Professions

Thomas J Masterson, Jr, Ph.D., Interim Dean
Bradford L. Swartz, Ph.D., Interim Assistant Dean
HP 2217, 774-1850

College Mission
The Herbert H. and Grace A. Dow College of Health Professions is dedicated to the development of professionals who contribute to a healthy society through practice, leadership, education, and service. This will be accomplished through:

- maximizing student success;
- integration of teaching, scholarship, practice, and service;
- partnering with the community.

Introduction
The health professions continue to be one of the fastest growing segments of the job market. There is an increasing demand for additional health care professionals to meet the current and projected health care needs of a growing and increasingly more diverse population. Through its undergraduate and graduate educational programs, the College is committed to providing learning opportunities to students aspiring to careers in professions that serve the contemporary health care needs of society. Service to disadvantaged segments of society most in need of care across age, cultural, and socioeconomic spectrums are central to the mission of the College’s educational programs. To this end, the College is committed to fostering community-centered education and to educating and training future health care professionals who are knowledgeable, competent, ethical, and caring, with a strong commitment to human service.

Health-Related Programs
The Herbert H. and Grace A. Dow College of Health Professions comprises four departments: Communication Disorders, Physical Education and Sport, the School of Rehabilitation and Medical Sciences and the School of Health Sciences. The professional education programs are designed to be comprehensive and include all the academic and clinical educational components needed to promote high quality health care delivery. The educational programs include training in liberal arts and humanities, basic sciences, social sciences, clinical skills, and professional behaviors. Internships and service learning opportunities are integral components of the health professions programs. A variety of health-related programs at CMU are offered on both an undergraduate and graduate level with most courses available on campus. If you are transferring from a community college, several programs have been designed to facilitate this transition.

Undergraduate Programs
Majors. Athletic Training/Sports Medicine, Communication Disorders, Health Administration, Health Fitness in Prevention and Rehabilitation Programs, Public Health Education and Health Promotion, Physical Education, School Health Education, Sports Studies.


Pre-Professional Studies. CMU offers some pre-professional studies in which you take foundation courses for transfer to universities offering such specialties as: dentistry, medicine and osteopathy, nursing, occupational therapy, optometry, pharmacy, physical therapy, physician assistant, and veterinary medicine. (See listing of pre-professional advising.)

Graduate Programs
The College offers doctoral programs in audiology (Au.D), Health Administration (DHA), and Physical Therapy (DPT) and masters degrees in: Physical Education, Physician Assistant, Speech-Language Pathology, and Sport Administration. A health services administration concentration is also available on the Master of Science in Administration degree.

Residential College
The Health Professions Residential College, located in Emmons Hall, provides unique opportunities for students to carefully examine their interests and career options utilizing tremendous on-site resources. The residential college program offers these distinctive opportunities:

- Educational programs that enhance your classroom learning and facilitate your professional goals;
- Opportunity to live with others who have similar career aspirations;
- A freshman year experience course, HPS 101 Introduction to the Health Professions, offering interdisciplinary topics;
- Increased opportunity for career information, advising, internships, professional networking, and information about graduate programs;
- Formal and informal out of class interactions with faculty;
- Supplemental instruction sessions and study groups;
- Curricular experiences.

Student Organizations
Numerous organizations exist on campus to support students interested in the health professions. These groups provide students with opportunities to network, gain additional information on specific disciplines, and experience professional growth. Students are encouraged to contact individual departments for specific information.
Communication Disorders (CDO, ASL)

For information, please contact the chairperson, 774-1323, 2186 Health Professions Building

Why Study Communication Disorders?
One of every ten people has a speech, language, or hearing problem. Communication disorders generally do not occur in a vacuum — they can be related to other problems as well. Social, emotional, educational, and vocational problems may stem from or be aggravated by communication disorders. Speech-language pathologists and audiologists are educated to prevent, identify and treat communication disorders. They work primarily in educational settings, medical and health facilities, and private practice.

Communication Disorders at CMU
To work as a speech-language pathologist or audiologist, you are required to fulfill the academic and clinical requirements for the Certificate of Clinical Competence (CCC) of the American Speech-Language-Hearing Association (ASHA). This certification requires completion of a master’s or doctoral degree. Your study of communication disorders at the undergraduate level must be carefully tailored to lead into study at the graduate level.

The department offers a major in communication disorders, which specifically prepares students for entry into graduate speech-language pathology and audiology programs and for other career opportunities. The minor in communication disorders prepares students for career opportunities particularly related to health and education as well as for advanced educational opportunities.

The Department of Communication Disorders offers the Doctor of Audiology (Au.D) degree for audiologists and the Master of Arts (M.A.) degree in speech-language pathology. The undergraduate and graduate level programs are designed to complement one another and to lead to ASHA’s Certificate of Clinical Competence (CCC) for students who complete the graduate degree programs. CMU’s academic programs in audiology and speech-language pathology are accredited by ASHA’s Council on Academic Accreditation (CAA). The audiology program is also accredited by the Accreditation Commission for Audiology Education (ACAE).

Early advisement of students considering a major in communication disorders is recommended. If you are interested in a career as a speech-language pathologist or audiologist, call the Department of Communication Disorders (774-3471) and request advisement assistance.

The Faculty

Major

Communication Disorders Major
B.A.A.; B.S. degrees

With the exception of CDO 494, courses taken Credit/No Credit do not count toward a major

Admission Requirements, Retention & Termination Standards

Admission Requirements
The Department of Communication Disorders (CDO) accepts approximately 40 students into the CDO major each fall and spring semester. To apply to the CDO major a student must complete an Application for Admission to Undergraduate Major Form and submit it along with an unofficial transcript to the department office in HP 2161 no later than November 1 for spring admission or April 1 for fall admission. Students can be enrolled in and completing CDO prerequisites at the time of application. Admission decisions will be made by CDO faculty at the end of each semester, after final grades have been posted. To be considered for admission a student must meet the following criteria:
1. An overall GPA of 2.50 or higher.
2. A CDO GPA of 3.00 or higher AND a grade of C or better in each of the CDO preadmission courses (CDO 230, 278, 330, 331, and 335). Students may not register for CDO courses higher than 335 without acceptance into the major.
3. Written evidence of consulting with a CDO advisor.
4. Completion of at least 40 semester hours of college coursework.

Retention & Termination Standards
1. Students must maintain a Major GPA of 3.00 or higher.
2. Students must maintain a grade of C or better in each major course.
3. Students must select courses in consultation with an advisor.
4. Students will not be permitted to enroll in the same CDO course more than twice.
5. Students must complete a speech-language-hearing screening.
6. If a student’s overall GPA drops below 2.50, s/he will be encouraged to take courses outside the department until s/he brings his/her overall GPA back up to 2.50.
7. If a student does not continue to meet the Admission/Retention criteria, s/he may be asked to withdraw from the major. The department maintains the right to terminate a student from the major if s/he is not progressing satisfactorily.
Minors

Communication Disorders Minor
B.A.; B.A.A.; B.S. degrees

This minor will provide the student with background in communication disorders; however, it may not be considered a minor for classroom teaching, and is not certifiable. Courses taken Credit/No Credit do not count toward a minor.

Required Courses (12 hours)
CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
CDO 278 - Descriptive Phonetics 2(2-0)
CDO 330 - Language Development 3(3-0)
CDO 331 - Introduction to Audiology 3(3-0)
CDO 335 - The Anatomy and Physiology of Speech and Hearing 4(4-0)
CDO 338 - Introduction to Articulation and Phonological Disorders 3(3-0)
CDO 340 - Child Language Assessment and Intervention 3(3-0)
CDO 402 - Diagnostics in Communication Disorders 2(2-0)
CDO 439 - Clinical Methods in Speech Language Pathology 3(3-0)
CDO 463 - Introduction to Acoustic Phonetics 2(2-0)
CDO 494 - Mentored Practicum in Communication Disorders 3(1-4)
CDO 495 - Clinical Experience: Communication Disorders 3-6(Spec)
CDO 531 - Audiologic Rehabilitation 3(3-0)

Required Courses II (3 hours)
Select one of the following:
CDO 513 - Voice Disorders/Laryngectomee Rehabilitation 3(3-0)
CDO 535 - Augmentative and Alternative Communication 3(3-0)
CDO 539 - Stuttering 3(3-0)

Total: 40 hours

Additional requirements for ASHA Certification:
1. Completion of an accredited master’s or doctoral degree.
2. Completion of the academic and clinical requirements for a Certificate of Clinical Competence of the American Speech-Language-Hearing Association (ASHA). For details, see Department of Communication Disorders in the Graduate Bulletin.

American Sign Language Minor
B.A.; B.A.A.; B.S. degrees

The minor in American Sign Language (ASL) will enable students to acquire conversational skills in American Sign Language and to develop an appreciation and understanding of the way in which people in the Deaf community live, think and communicate. The ASL minor is designed for students who wish to expand their language skills and cultural knowledge to enhance other majors such as linguistics, communication disorders (speech-pathology and audiology), journalism, business, education, theater, social work, psychology, health sciences, or other areas of study.

Required Courses (18 hours)
ASL 100 - Introduction to the Deaf Community and Deaf Culture 3(3-0)
ASL 101 - American Sign Language, Level I 3(3-0)
ASL 102 - American Sign Language, Level II 3(3-0)
ASL 201 - American Sign Language, Level III 3(3-0)
ASL 202 - American Sign Language, Level IV 3(3-0)
ASL 390 - Sociocultural History of the American Deaf Community 3(3-0)

Electives (6 hours)
Select 6 hours in consultation with an advisor.
ASL 401 - American Sign Language Level V 3(3-0)
ASL 402 - American Sign Language Level VI 3(3-0)
ASL 404 - Advanced Fingerspelling and Numbers 3(3-0)
ASL 510 - ASL Linguistics 3(3-0)
ASL 590 - Independent Study 1-4(Spec)
ASL 599 - Special Topics 1-3(Spec)

Total: 24 semester hours
Why Study Health Sciences?
There is mounting evidence that our lifestyles dramatically affect our health, well-being and longevity, as well as the dollar cost of health care. The realization that prevention is paramount to healthy living and to health care cost containment has created an interest in health education and health promotion in various public and private health settings, such as clinics, fitness centers, agencies and schools. Professionals in the health sciences are trained to help individuals improve the quality of their life by practicing healthy lifestyles.

Health Sciences at CMU
Undergraduate majors and minors offered through the School of Health Sciences focus on preparing professionals to: 1) become fitness and exercise specialists in preventative and rehabilitative programs; 2) function in the public setting as health educators and health promotion specialists; 3) work as educators and programs specialists in the field of substance abuse prevention, substance abuse intervention, and treatment; 4) work in an administrative capacity in various health settings; and 5) be teachers of health education in school settings. Individuals with education in health professions may be eligible to transfer credits and satisfy the requirements for an allied health minor, which is described in the Bulletin. The school offers the following graduate degree programs: Health Service Administration concentration on a Master of Science in Administration degree and the Doctorate of Health Administration. Further information is available in the College of Graduate Studies Bulletin.

The Faculty

Majors
The following majors are available through this department: 1) Health Administration, 2) Health Fitness in Preventive and Rehabilitative Program, 3) Public Health Education and 4) School Health Education.

Health Administration Major
B.A.A.; B.S. degrees
This major prepares students for entry level administrative positions in a variety of health settings. It also prepares individuals who have preparation in an allied health field for middle management positions such as department head or supervisor.

Required Courses (45 hours)
ACC 201 - Concepts of Financial Accounting 3(3-0)
HSC 317 - Community Health 3(3-0)
HSC 333 - Managing the Health of Populations 3(3-0)
HSC 500 - Health Informatics 3(3-0)
HSC 507 - Introduction to Health Service Organizations and Systems 3(3-0)
HSC 520 - Health Services Administration 3(3-0)
HSC 538 - Development of Proposals and Reports in Health Administration 3(3-0)
HSC 544 - Biostatistics 3(2-1)
HSC 545 - Health Planning 3(3-0)
HSC 570 - Financial Aspects of Health Services Organizations 3(3-0)
HSC 571 - Legal Aspects of Health Services Organizations 3(3-0)
HSC 572 - Quality Improvement in Health Services 3(3-0)
HSC 595 - Health Administration Internship 6(6-0)
MKT 300 - Introduction to Marketing 3(3-0)

Other Requirement (3 hours)
Select one of the following:
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
Total: 48 hours

Health Fitness in Preventive and Rehabilitative Programs Major
B.A.; B.A.A.; and B.S. degrees
This major prepares students through academic coursework, laboratory and internship experiences to work in the field of exercise science to promote fitness and the prevention and rehabilitation of chronic disease. Students completing a supervised internship experience in a clinical or corporate/commercial setting (HSC 322B) may be eligible for national certification through the American College of Sports Medicine (A.C.S.M.).

A minimum of 6 semesters is necessary to complete the entire program. However, due to class availability and supervised internship experience availability it may take a student longer to complete the entire program. The program is structured into phases, which include:
A. Required Courses I
B. Required Courses II
C. Electives chosen in consultation with the advisor.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
Students intending to major in Health Fitness in Preventive and Rehabilitative Programs must meet the following requirements:
1. Complete each of the courses in Required Courses I with an overall GPA of 2.5 and a minimum grade of C (2.0) in each HSC designated course to sign a major;
Required Courses I (28 hours)
BIO 101 - General Biology 3(2-2)
CHM 120 - Survey of Chemistry 4(4-0)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)
HSC 205 - Responding to Emergencies 2(1-2)
HSC 214 - Human Anatomy 4(3-3)
HSC 215 - Human Physiology 4(3-2)
HSC 220 - Basics In Health Fitness 3(2-2)
PED 189 - Weight Training and Conditioning 2(Spec)
PES 186/PED 186 - Physical Fitness for Life 2(2-0)
PSY 100 - Introduction to Psychology 3(3-0)

Required Courses II (20 hours)
HSC 308/PES 308 - Work Physiology 3(3-0)
HSC 310 - ECG Assessment 2(2-1)
HSC 411 - Pathophysiology 3(3-0)
HSC 503 - Health Implications of Obesity 3(3-0)
HSC 547 - Health Risk Identification and Management 3(3-0)
HSC 550 - Stress Test Administration 3(2-2)
HSC 551 - Stress Testing Interpretation 3(3-0)

Electives (9 hours)
Elective coursework is chosen in consultation with the major advisor, based upon the career interests and goals of the individual student. A full-time clinical or corporate/commercial internship (HSC 322B, 8 hours) is strongly encouraged for eligible students to prepare for certification and to enhance marketability.

Total: 57 semester hours

Public Health Education and Health Promotion Major
B.A.; B.A.A.; and B.S. degrees

The purpose of this major is to prepare students for careers in a variety of official, voluntary, community based organizations, private health agencies and hospitals. Some career possibilities include, but are not limited to: the education of the public regarding chronic and communicable disease prevention; the promotion of wellness; assessing, planning and implementing programs within communities; and organizing communities regarding health issues.

Admission Requirements, Retention & Termination Standards
Pre-Admission Statement
The student is required to complete each of the Pre-Admission courses listed in Required Courses I with an overall GPA of 2.5 in these courses to sign a major in Public Health Education and Health Promotion.

Required Courses I (25 hours)
Pre-Admission Requirements
BIO 101 - General Biology 3(2-2)
BIO 208 - Microbiology 3(2-3)
CHM 120 - Survey of Chemistry 4(4-0)
HSC 106 - Healthy Lifestyles 3(3-0)
HSC 211 - Human Anatomy and Physiology 3(3-0)
MTH 105 - Intermediate Algebra 3(3-0)
PSY 100 - Introduction to Psychology 3(3-0)
SOC 100 - Introductory Sociology 3(3-0)

Required Courses II (26 hours)
HSC 317 - Community Health 3(3-0)
HSC 319 - Methods and Materials in Community Health Education 3(3-0)

HSC 322 - Community Organization Methods 3(3-0)
HSC 418 - Professional Aspects of Health Education 2(2-0)
HSC 419 - Community Health Education Assessment, Planning and Program Evaluation 3(3-0)
HSC 422 - Internship - Community Health 6(Spec)
HSC 514 - Biostatistics and Epidemiology 3(3-0)
HSC 520 - Health Services Administration 3(3-0)

Electives (12 hours)
Chosen with approval of advisor.

Total: 63 semester hours

School Health Education Major
B.S. in Ed. degree, Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
The major in School Health Education leads to certification to teach health education in grades K-12. The student must meet the following requirements:
1. Prior to signing the major/minor authorization, the student must have an overall 2.5 GPA, a 2.6 GPA for a minimum of six semester credit hours in HSC classes.
2. Must maintain a 2.7 GPA for all classes on major and minor.
3. Must have successfully completed, or be concurrently taking, HSC 211, 222, 235, 411, 503 or HEV 370 before taking HSC 340.
4. Have a combined GPA of 2.6 for HSC 340 and 346 before student teaching.
5. Achieve a grade of C (2.0), or better, for each HSC class.

Vocational education endorsements are available for individuals with allied health background who meet specific certification requirements.

Required Courses I (44 hours)
BIO 101 - General Biology 3(2-2)
CHM 120 - Survey of Chemistry 4(4-0)
HEV 370 - Nutrition 3(3-0)
HSC 106 - Healthy Lifestyles 3(3-0)
HSC 205 - Responding to Emergencies 2(1-2)
HSC 211 - Human Anatomy and Physiology 3(3-0)
HSC 222 - Sexuality In Health Education 3(3-0)
HSC 235 - Psychoactive Drugs 3(3-0)
HSC 313 - Field Experience in School Health Education 1(Spec)
HSC 340 - Curriculum in Health Education 3(3-0)
HSC 346 - Methods and Resources in Teaching Health 3(3-1)
HSC 411 - Pathophysiology 3(3-0)
HSC 418 - Professional Aspects of Health Education 2(2-0)
HSC 526 - Mental Health 3(3-0)
PSY 100 - Introduction to Psychology 3(3-0)
SOC 100 - Introductory Sociology 3(3-0)

Required Courses II (3 hours)
Select one of the following:
HSC 317 - Community Health 3(3-0)
HSC 352 - Environmental Health 3(3-0)

Electives (4 hours)
Four hours in HSC from the following with advisor’s approval:
HSC 503 - Health Implications of Obesity 3(3-0)
HSC 519 - Death Education and Suicide Prevention 3(3-0)
HSC 522 - Consumer Health Education 2(2-0)
HSC 534 - Workshop in Principles of Cardiovascular Health and Disease 1(Spec)
HSC 537 - Stress Reduction Workshop 1(Spec)
HSC 547 - Health Risk Identification and Management 3(3-0)

Total: 51 semester hours
Minors

The following minors are available through this school: 1) Allied Health, 2) Exercise Science, 3) Personal and Community Health, 4) School Health Education and 5) Substance Abuse Education.

Allied Health Minor

B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

This twenty-four-hour minor is authorized for students who have completed a minimum of 24 credit hours in these fields: medical lab technician/technologist, radiological technician/technologist, physical therapy assistant, respiratory therapy assistant/respiratory therapist, occupational therapy assistant, pharmacy technician, emergency medical technician/paramedic, medical records librarian, licensed practical nurse, dental hygienist, medical assistant, medical sonographer, dental assistant or technician, surgical technologist, cardiovascular technologist.

Credit to apply on the minor is obtained by transfer credit from an accredited university, college, or community college. The transcript must show a minimum of 24 semester hours of credit in one of the specialty fields listed above, and evidence of program completion. Credit can also be obtained through completion of appropriate military training in one of the listed specialty fields as verified by the recommendations of the American Council on Education.

Total: 24 semester hours

Exercise Science Minor

B.A.; B.A.A.; B.S.

This minor is designed for and limited to Health Fitness in Preventive and Rehabilitative Program majors preparing to work in the fitness industry. This minor is designed to prepare students for certifications available in the field of health fitness; e.g., personal training, health fitness instructor.

Required Courses (13 hours)

HSC 219 - Exercise Conditioning for Health Fitness Professionals 2(0-3)
HSC 420 - Health Fitness Assessment 3(2-3)
HSC 421 - Personal Training 3(2-3)
HSC 423 - Practicum in Personal Training 2(1-3)
HSC 425 - Health Fitness Program Administration/Management 3(3-0)

Electives (11 hours)

11 hours chosen in consultation with an advisor:
HEV 375 - Nutrition and Performance 3(3-0)
HSC 424 - Practicum in Health Fitness 2(0-6)
HSC 503 - Health Implications of Obesity 3(3-0)
HSC 505 - Work Injury Prevention 3(3-0)
HSC 547 - Health Risk Identification and Management 3(3-0)
MKT 221/ENT 221 - Marketing Strategies for Entrepreneurs 3(3-0)
PES 485 - Theoretical Foundations of Strength and Conditioning 3(3-0)

Total: 24 semester hours (minimum)

Personal and Community Health Minor

B.A.; B.A.A.; B.S. degrees

Required Courses (9 hours)

HSC 106 - Healthy Lifestyles 3(3-0)
HSC 211 - Human Anatomy and Physiology 3(3-0)
HSC 317 - Community Health 3(3-0)

Electives (15 hours)

Selected with an advisor from a list of approved courses. Courses on this minor cannot be double counted on the Public Health Education and Health Promotion Major.

Total: 24 semester hours

Note: There is considerable overlap of health content courses with the present major in Public Health Education and Health Promotion. For this reason, students with a Public Health Education and Health Promotion major will be encouraged through advisement to select a minor from another discipline to broaden their knowledge and competencies.

School Health Education Minor

B.S. in Ed., Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

This minor will lead to recommendation for certification in health education grades 7-12. The student must meet the following requirements:

Admission Requirements, Retention & Termination Standards

1. Prior to signing the major/minor authorization, the student must have an overall 2.5 GPA, a 2.6 GPA for a minimum of six semester credit hours in HSC classes.
2. Must maintain a 2.7 GPA for all classes on major and minor.
3. Must have successfully completed, or be concurrently taking, HSC 106, 205, 211, 222, or 317 before taking HSC 340.
4. Have a combined GPA of 2.6 for HSC 340 and 346 before student teaching.
5. Achieve a grade of C (2.0), or better, for each HSC class.

Vocational education endorsements are available for individuals with allied health background who meet specific certification requirements.

Required Courses (22 hours)

HSC 106 - Healthy Lifestyles 3(3-0)
HSC 205 - Responding to Emergencies 2(1-2)
HSC 211 - Human Anatomy and Physiology 3(3-0)
HSC 222 - Sexuality In Health Education 3(3-0)
HSC 317 - Community Health 3(3-0)
HSC 340 - Curriculum in Health Education 3(3-0)
HSC 346 - Methods and Resources in Teaching Health 3(3-1)
HSC 418 - Professional Aspects of Health Education 2(2-0)

Electives (2-3 hours)

Choose 2-3 credit hours from the following list in consultation with an advisor:
HEV 370 - Nutrition 3(3-0)
HSC 235 - Psychoactive Drugs 3(3-0)
HSC 343 - Health Education in the Elementary School 3(2-2)
HSC 523 - AIDS Education 1(1-0)
HSC 526 - Mental Health 3(3-0)
HSC 529 - Alcohol Education Workshop 1(1-0)
HSC 530 - Drug Abuse Workshop 1(Spec)
HSC 532 - Alcohol Education Workshop 1(1-0)
HSC 533 - Drug Abuse Workshop 1(Spec)
HSC 534 - Diversity Issues in the Health Professions 3(3-0)

Total: 24-25 semester hours

Substance Abuse Education: Prevention, Intervention, and Treatment Minor

B.A.; B.A.A.; B.S. degrees

This minor is designed for professionals wishing to work in roles or settings requiring knowledge and intervention skills relative to alcohol and other drugs.

Required Courses (15 hours)

HSC 235 - Psychoactive Drugs 3(3-0)
HSC 236 - Substance Abuse Intervention Programming 3(3-0)
HSC 526 - Mental Health 3(3-0)
HSC 532 - Diversity Issues in the Health Professions 3(3-0)
HSC 598 - Nature and Dynamics of Destructive Health Habits 3(3-0)
Electives (9 hours)
Chosen from the following list with approval of an advisor.
CED 517 - Group Experience I 2(Spec)
HEV 370 - Nutrition 3(3-0)
HEV 411 - Family Relations 3(3-0)
HSC 106 - Healthy Lifestyles 3(3-0)
HSC 211 - Human Anatomy and Physiology 3(3-0)
HSC 317 - Community Health 3(3-0)
HSC 319 - Methods and Materials in Community Health Education 3(3-0)
HSC 350 - Community Service in the Health Educators 2(2-0)
HSC 510 - Independent Reading Experience 1-4(Spec)
HSC 512 - Special Topics in Health Education 1-12(Spec)
HSC 523 - AIDS Education 1(1-0)
HSC 537 - Stress Reduction Workshop 1(Spec)
PSY 220 - Developmental Psychology 3(3-0)
PSY 250 - Abnormal Psychology 3(3-0)
PSY 350 - Clinical Interviewing and Counseling 3(3-0)
SOC 221 - Social Problems 3(3-0)
SOC 324 - Criminology 3(3-0)
SOC 411 - The Family 3(3-0)
SWK 250 - Social Welfare Policies and Services I 3(3-0)
SWK 300 - Crisis Intervention Experience 3(Spec)

Total: 24 Semester Hours
Physical Education and Sport (ATR, PES, PED)

For information, please contact the chairperson, 774-6658, 2234 Health Professions Building

Why Study Physical Education and Sport?
In your daily life, you regularly utilize human movement. In fact, if your physical abilities are compromised at all, on either a temporary or permanent basis, your dependence on physical movement is readily apparent.

You can study physical education and sport no matter what your interest level - from thorough study of kinesiology (the study of physiology and human movement) to participation in a particular sport for the purpose of personal enjoyment. If you are interested in developing your fullest potential through the unique medium of human movement, you are interested in physical education and sport.

Physical Education and Sport at CMU
Programs in physical education and sport at CMU focus on: (1) the preparation of students to allow them to pursue careers in physical education, sport and related professions; (2) the in-depth study of physical education and sport; and (3) the teaching of basic skills in a wide range of activities.

Curricular offerings lead to the Bachelor of Science, Bachelor of Science in Education, Bachelor of Arts, Bachelor of Applied Arts, Master of Arts in Physical Education and Master of Arts in Sport Administration. The degree programs can prepare you for a career in physical education, athletic training, athletic coaching, sport management, and exercise science. Interdisciplinary programs may meet your needs if you have sport-related career goals. Many classes involve active participation in sport and fitness activities.

PED Limitation
PED-designated courses are subject to a limitation of six hours toward curricular requirements for graduation.

The Faculty
Tera L. Albrecht, H. Ray Allen, Gary W. Arbogast, Thomas A. Cappaert, Judy P. Chandler, Christina Eyers, Janet S. Helfrich, James E. Hornak, Thomas Keating (Adjunct Professor), Marcia J. Mackey, Carrie A. McGillis, Vincent E. Mumford, Kari B. Odland, Tracy W. Olrich, Barbara K. Peddie, Donald J. Peddie, Rene’ Revis Shingles, Janet L. Smith, Scott J. Smith, Stephen M. Thompson, Emily Webster

Majors
Physical Education Major
(K-12 Certification)
B.A.; B.S.; B.S. in Ed. degrees, Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

1. Students seeking this major must successfully complete the Sport Skill Competency Assessment Program. This assessment program is competency based and required before enrolling in PES 215. Additional information concerning this program can be obtained from the departmental office or the PES webpage.

2. To gain approval to student teach, each student must:
   a. have an overall GPA of 2.7
   b. have received a grade of C+ or better in PES 315, 386, and 415
   c. have current CPR and First Aid Certification

3. At least 15 hours of this major must be completed at CMU.
4. Up to 3 hours may be taken as credit/no credit.
5. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

Required Courses I (44 hours)
DAN 334 - Teaching of Folk, Square, and Social Dance 3(3-0)
HSC 211 - Human Anatomy and Physiology 3(3-0)
PES 115 - Fundamental Motor Skills 2(2-0)
PES 186 - Physical Fitness for Life 2(2-0)
PES/HSC 212 - Applied Physiology and Kinesiology 3(2-2)
PES 215 - K-12 Physical Education Programming 3(3-0)
PES 244 - Methods of Teaching Tumbling 2(2-0)
PES/HSC 308 - Work Physiology 3(3-0)
PES 315 - Methods in Teaching Physical Education 3(3-0)
PES 338 - Teaching Aerobics 2(2-0)
PES 386 - Special Physical Education 3(3-0)
PES 395 - Mid-Tier Field Experience 1(Spec)
PES 401 - Fundamentals of Motor Learning 3(3-0)
PES 405 - Physical Education Peer-Tutor Teaching 2(1-1)
PES 406 - Evaluation in Physical Education and Sport 2(2-0)
PES 415 - Planning, Teaching, and Assessing: Practical Applications 3(3-0)
PES 485 - Theoretical Foundations of Strength and Conditioning 3(3-0)
PES 495 - Senior Seminar in Physical Education 1(1-0)

Note: HSC 211 may also be used to satisfy a University Program requirement.
Dow College of Health Professions

Required Courses II (2-3 hours)
Select one of the following:
- PES 235 - Teaching Lifelong Activities 2(2-0)
- PES 300 - Wilderness Experience for Leadership Development 3(2-2)
- RPL 218 - Teaching of Outdoor Skills 3(3-0)

Electives (6-7 hours)
To be selected in consultation with an advisor.

Total: 53 semester hours

Sport Studies Major
B.A.; B.S.; B.A.A. degrees

Selection of this major is to prepare students for a career in sport management. Career options include high school, collegiate, amateur, and professional sport management, sport business management, coaching, or employment with non-profit sport agencies. Coordinated major/minor programs are available on an interdepartmental basis to broaden the employment opportunities in sport retail, merchandising, journalism, broadcasting, or exercise science. Such coordinated programs require early advisement. Students who desire to pursue one of the career opportunities should contact the department of physical education and sport for early advisement.

Required Courses I (29-37 hours)
- ACC 210 - Accounting Information for Entrepreneurial Decision Making 3(3-0)
- ECO 211 - Economics of Professional Team Sports 3(3-0)
- ECO 220 - Introduction to Consumer Behavior 3(3-0)
- PES 118 - Sport in America 3(3-0)
- PES 186 - Physical Fitness for Life 2(2-0)
- PES 190 - Introduction to Sport Management 3(3-0)
- PES 300 - Wilderness Experience for Leadership Development 3(3-0)
- PES 309 - Foundations of Sport Management 3(3-0)
- PES 333 - Field Study in Sport Management 1-4(Spec)
- PES 499 - Internship in Sport Management 2-12(Spec)

Required Courses II (3 hours)
Select one of the following:
- MKT 151 - Marketing and Society 3(3-0)
- MKT 220 - Introduction to Retail Merchandising 3(3-0)
- MKT 300 - Introduction to Marketing 3(3-0)
- MKT 399 - Marketing Strategies for Small Business 3(3-0)

Electives (0-8 hours)
Selected in consultation with departmental advisor.

Electives I (0-8 hours)
May select any of the following:
- BLR 202 - Legal Environment of Business 3(3-0)
- PES 311 - Psychology of Coaching 3(3-0)
- RPL 420 - Planning and Facility Design for Leisure 3(3-0)
- RPL 430 - Recreation Programming 3(3-0)

Electives II (0-3 hours)
May select one of the following:
- COM 357 - Public Speaking 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)
- JRN 101 - Mass Communications in Contemporary Society 3(3-0)
- JRN 350 - Public Relations Principles and Practices 3(3-0)

Total: 40 semester hours

Additional Requirements:
1. At least 12 hours of credit must be completed at CMU.
2. Students may elect up to 10 hours of course work on a credit/no credit basis.

Athletic Training/Sports Medicine Major
B.A.; B.S.; B.A.A. degrees

The primary goal of the Athletic Training/Sports Medicine major is to prepare students to enter the athletic training profession. Accredited by the Commission on Accreditation of Athletic Training Education (CAATE), this program includes classroom and clinical experiences in a variety of health care settings designed to prepare entry-level certified athletic trainers (ATC®). Upon completion of the major, students are eligible to apply for the Board of Certification, Inc. national certification examination for athletic trainers.

Faculty, who are Certified Athletic Trainers in the Department of Physical Education and Sport, advise the Athletic Training major. Students are encouraged to meet with an athletic training advisor before beginning coursework in the major. A minimum of 8 semesters is necessary to complete the entire program. However, due to class availability and supervised clinical experience availability, it may take a student longer than 8 semesters to complete the program. The program is structured into 3 required phases that include: the Pre-Professional Phase, the Professional Phase, and the Internship Phase. In-depth information regarding this major may be viewed by accessing the program website at http://www.chp.cmich.edu/atep/.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
All students must meet specific program Selection Criteria (http://www.chp.cmich.edu/atep/prospect.htm) and Technical Standards (http://www.chp.cmich.edu/atep/program-info.htm) in order to be considered for admission to the Professional Phase. Fourteen students per semester will have the opportunity for selection to the Professional and Internship Phase. Students must achieve an overall minimum of 318.5 points in order to be considered for selection. The majority of students can expect a minimum of 3 semesters to complete this phase.

Selection criteria include:
1. Application
2. Grade of CR in ATR 283
3. Overall GPA
4. Pre-Professional Courses GPA
   • See additional University Program requirements as listed in Major.
5. Directed Observation Staff Evaluation
6. Proficiency Written Examination
7. Proficiency Skill Test
8. Selection Interview

Professional and Internship Phase Requirements
Students must continue to meet program Retention Criteria and Technical Standards to maintain status in the Professional Phase. Consequences for non-compliance have been determined and could include probation, suspension or dismissal from the program. Additional information regarding the Professional and Internship Phase may be viewed by accessing the program website at http://www.chp.cmich.edu/atep/current.htm.

1. Maintain at least a 2.8 overall GPA.
2. Maintain at least a 3.1 major GPA.
3. Maintain established academic and professional standards
### Required Courses I (21 hours)

#### Pre-Professional Phase

Students can expect a minimum of 3 semesters to complete the Pre-Professional Phase, which includes the following courses and a directed clinical observation. All students must meet specific program Selection Criteria and program Technical Standards in order to be considered for admission to the Professional and Internship phase of the Athletic Training/Sports Medicine program. Additional information regarding the Selection Process may be viewed by accessing the program web site at [http://www.chp.cmich.edu/atep/prospect.htm](http://www.chp.cmich.edu/atep/prospect.htm).

- ATR 180 - Introduction to Athletic Training 2(2-0)
- ATR 190 - Fundamentals of Injury Prevention 2(2-0)
- ATR 282 - Anatomical Aspects of Athletic Training 3(3-0)
- ATR 283 - Athletic Training Directed Observation 1(Spec)

#### Required Courses II (42 hours)

**Professional Phase**

The Professional Phase is a 4 semester process that involves coursework, clinical education activities, and a minimum of 800 hours of supervised clinical field experiences. Upon completion of these requirements, the student must complete a 15-week internship/practicum.

- ATR 310 - Athletic Training Clinical I 1(Spec)
- ATR 311 - Theory and Application of Preventative Devices 1(Spec)
- ATR 320 - Athletic Training Clinical II 1(Spec)
- ATR 321 - Reconditioning Principles in Athletic Training 1(Spec)
- ATR 380 - Athletic Training Assessment I 3(2-2)
- ATR 381 - Athletic Training Therapeutics I 3(2-2)
- ATR 382 - Athletic Training Assessment II 3(2-2)
- ATR 383 - Athletic Training Therapeutics II 3(2-2)
- ATR 394 - Pharmacology for Health Professions 2(2-0)
- ATR 430 - Athletic Training Clinical III 1(Spec)
- ATR 431 - Cultural Considerations in Athletic Training 1(Spec)
- ATR 440 - Athletic Training Clinical IV 1(Spec)
- ATR 441 - Professional Development 1(Spec)
- ATR 480 - Health Care Administration in Athletic Training 3(3-0)
- ATR 481 - Athletic Training Practicum 3(Spec)
- ATR 482 - Athletic Training Internship 12(Spec)

#### Other Professional Phase Requirement

- HEV 100 (3) OR PSY 100 (3);
- CHM 120 (4), 127 (1) OR CHM 131 (4)

### Minors

#### Physical Education Minor, Secondary or Non-Teaching

**B.A.; B.S.; B.S. in Ed., Provisional Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement**

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

1. Students seeking this minor must successfully complete the Sports Skill Competency Assessment Program. This assessment program is competency based and required before enrolling in PES 215. Additional information concerning this program can be obtained from the departmental office or the PES webpage.
2. To gain approval to student teach, each student must:
   - have an overall GPA of 2.7;
   - have received a grade of C+ or better in PES 315, PES 386 and PES 415;
   - have current CPR and First Aid Certification.
3. Up to 3 hours may be taken as credit/no credit.
4. A minimum 2.7 GPA (B-) must be earned on all teaching minors.

#### Required Courses I (21 hours)

- PES 115 - Fundamental Motor Skills 2(2-0)
- PES 186 - Physical Fitness for Life 2(2-0)
- PES 215 - K-12 Physical Education Programming 3(3-0)
- PES 315 - Methods in Teaching Physical Education 3(3-0)
- PES 386 - Special Physical Education 3(3-0)
- PES 406 - Evaluation in Physical Education and Sport 2(2-0)
- PES 415 - Planning, Teaching, and Assessing: Practical Applications 3(3-0)
- PES 485 - Theoretical Foundations of Strength and Conditioning 3(3-0)

#### Required Courses II (2-3 hours)

Select one of the following:

- DAN 334 - Teaching of Folk, Square, and Social Dance 3(3-0)
- PES 338 - Teaching Aerobics 2(2-0)

**Electives (0-1 hours)**

To be selected in consultation with an advisor

**Total: 24 semester hours**

#### Physical Education Minor, Elementary or Non-Teaching

**B.A.; B.S.; B.S. in Ed. degrees**

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

1. Students seeking this minor must successfully complete the Sport Skill Competency Assessment Program. This assessment program is competency based and required before enrolling in PES 215. Additional information concerning this program can be obtained from the departmental office or the PES webpage.
2. To gain approval to student teach, each student must:
   - have an overall GPA of 2.7;
   - have received a grade of C+ or better in PES 315, 386 and 415;
   - have current CPR and First Aid Certification.
3. Up to 3 hours may be taken as credit/no credit.
4. A minimum 2.7 GPA (B-) must be earned on all teaching minors.

(continued)
Required Courses (20 hours)

PES 115 - Fundamental Motor Skills 2(2-0)
PES 186 - Physical Fitness for Life 2(2-0)
PES 215 - K-12 Physical Education Programming 3(3-0)
PES 244 - Methods of Teaching Tumbling 2(2-0)
PES 315 - Methods in Teaching Physical Education 3(3-0)
PES 386 - Special Physical Education 3(3-0)
PES 406 - Evaluation in Physical Education and Sport 2(2-0)
PES 415 - Planning, Teaching, and Assessing: Practical Applications 3(0)

Electives (4 hours)

To be selected in consultation with an advisor.

Total: 24 semester hours

Sport Studies Minor

B.A.; B.S.; B.A.A.; B.S. in B.A. degrees

The minor is designed for students who wish to pursue a career in one of the areas of sport management or related professions. Students are advised that coordinated major/minor programs are available on an interdepartmental basis to provide the student with the background necessary to enter such fields as sports business management, sports retailing and merchandising, sports journalism, sports broadcasting, athletic administration, and coaching. Students who desire to pursue one of these career opportunities should contact the department of physical education and sport for early assignment to an advisor.

Required Courses (19-22 hours)

PES 118 - Sport in America 3(3-0)
PES 190 - Introduction to Sport Management 3(3-0)
PES 318 - Social, Historical, and Global Issues in Sport 3(3-0)
PES 320 - Foundations of Sport Management 3(3-0)
PES 393 - Field Study in Sport Management 1-4(Spec)
PES 550 - Sport Fundraising 3(3-0)
PES 564 - Sport Governance: Ethics, Morals, and Values 3(3-0)

Additional Requirements (19-22 hours)

1. At least 12 hours of credit must be completed at CMU.
2. Students may include up to 10 hours of coursework on a credit/no credit basis.

Electives (2-5 hours)

Selected in consultation with departmental advisor

Electives I (2-5 hours)

May select any of the following:
ACC 210 - Accounting Information for Entrepreneurial Decision Making 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
ECO 211 - Economics of Professional Team Sports 3(3-0)
PES 186 - Physical Fitness for Life 2(2-0)
PES 311 - Psychology of Coaching 3(3-0)
PES 499 - Internship in Sport Management 2-12(Spec)
RPL 430 - Recreation Programming 3(3-0)
BLR 202 may also be used to satisfy a University Program requirement.

Electives II (2-5 hours)

May select one of the following:
COM 357 - Public Speaking 3(3-0)
COM 361 - Interpersonal Communication 3(3-0)
JRN 101 - Mass Communications in Contemporary Society 3(3-0)
JRN 350 - Public Relations Principles and Practices 3(3-0)

Electives III (2-5 hours)

May select one of the following:
MKT 151 - Marketing and Society 3(3-0)
MKT 220 - Introduction to Retail Merchandising 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)
MKT 399 - Marketing Strategies for Small Business 3(3-0)

Total: 24 semester hours

Special Physical Education Minor, Teaching Elementary Special

B.S. in Education, Elementary with Emotional or Cognitive Impairment Endorsement

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

1. The program is open only to those students who are majors in special education and will earn an elementary provisional certificate. Students who wish to meet the requirement for state approval as a teacher of physical education for the handicapped must consult the program coordinator.
2. Students seeking this minor must successfully complete the sports skills assessment program. This assessment program is competency-based and required before enrolling in PES 315. Additional information can be obtained from the departmental office or the PES web page at http://www.chp.cmich.edu/pes/default.htm.
3. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Required Courses I (20 hours)

HSC 211 - Human Anatomy and Physiology 3(3-0)
PES 115 - Fundamental Motor Skills 2(2-0)
PES 212/HSC 212 - Applied Physiology and Kinesiology 3(2-2)
PES 308/HSC 308 - Work Physiology 3(3-0)
PES 315 - Methods in Teaching Physical Education 3(3-0)
PES 386 - Special Physical Education 3(3-0)
PES 401 - Fundamentals of Motor Learning 3(3-0)

Required Courses II (3 hours)

Select one of the following in consultation with your advisor:
PES 387 - Physical Education for the Physically Impaired 3(2-2)
PES 483 - Physical Education for the Mentally Impaired 3(2-2)

Required Courses III (1 hour)

To be selected in consultation with an advisor.

Total: 24 semester hours

Athletic Coaching Minor

B.A.; B.S.; B.A.A. degrees

The athletic coaching minor is recommended for students who do not have a major or minor in physical education but are interested in coaching in an athletic program sponsored by the Michigan High School Athletic Association or some other state athletic association.

Required Courses (16-18 hours)

HSC 205 - Responding to Emergencies 2(1-2)
HSC 211 - Human Anatomy and Physiology 3(3-0)
PES 186 - Physical Fitness for Life 2(2-0)
PES 279 - Sport First Aid 2(2-0)
PES 311 - Psychology of Coaching 3(3-0)
PES 390 - Practicum in Physical Education and Coaching 1-3(Spec)
PES 560 - Principles and Foundations of Coaching 3(3-0)

Electives (2-4 hours)

Selected from the following to complete a minimum of 20 hours for the athletic coaching minor.
PES 210 - Mental Training for Sport Performance 3(3-0)
PES 212 - Applied Physiology and Kinesiology 3(2-2)
Physical Education and Sport

PES 245 - Gymnastics 3(Spec)
PES 304 - Youth Sports 2(2-0)
PES 365 - Teaching and Coaching Tennis 3(3-0)
PES 366 - Coaching of Track and Field 2(2-0)
PES 368 - Coaching and Officiating of Wrestling 2(1-2)
PES 370 - Coaching of Basketball 2(2-0)
PES 372 - Coaching of Baseball 2(2-0)
PES 374 - Coaching of Football 2(2-0)
PES 375 - Coaching Fastpitch Softball 2(2-0)
PES 376 - Coaching Soccer 2(2-0)
PES 378 - Coaching Volleyball 2(2-0)
PES 401 - Fundamentals of Motor Learning 3(3-0)
PES 570 - Advanced Coaching in Basketball 2(2-0)
PES 572 - Advanced Coaching in Baseball 2(2-0)
PES 574 - Advanced Coaching of Football 2(2-0)

Total: 20 semester hours

Athletic Coaching Endorsement

The athletic coaching endorsement consists of 12 hours as outlined below. The endorsement is recommended for students who do not have a major or minor in physical education but are interested in coaching in a public school, private school, recreation program or community athletic program.

Required Courses I (8 hours)

- HSC 205 - Responding to Emergencies 2(1-2)
- PES 311 - Psychology of Coaching 3(3-0)
- PES 560 - Principles and Foundations of Coaching 3(3-0)

Required Courses II (2-4 hours)

Select 2-4 hours from the following:

- PES 366 - Coaching of Track and Field 2(2-0)
- PES 368 - Coaching and Officiating of Wrestling 2(1-2)
- PES 370 - Coaching of Basketball 2(2-0)
- PES 372 - Coaching of Baseball 2(2-0)
- PES 374 - Coaching of Football 2(2-0)
- PES 375 - Coaching Fastpitch Softball 2(2-0)
- PES 376 - Coaching Soccer 2(2-0)
- PES 378 - Coaching Volleyball 2(2-0)
- PES 390 - Practicum in Physical Education and Coaching 1-3(Spec)
- PES 570 - Advanced Coaching in Basketball 2(2-0)
- PES 572 - Advanced Coaching in Baseball 2(2-0)
- PES 574 - Advanced Coaching of Football 2(2-0)

Total: 12 semester hours

Electives (0-2 hours)

Selected from above, or from the following to complete a minimum of 12 hours for the endorsement:

- PED 189 - Weight Training and Conditioning 2(Spec)
- PES 167 - Track and Field - Running Events 1(Spec)
- PES 170 - Fundamentals of Basketball 1(Spec)
- PES 172 - Fundamentals of Baseball and Softball 1(Spec)
- PES 174 - Fundamentals of Football 1(Spec)
- PES 178 - Power Volleyball 1(Spec)
- PES 224 - WSI-Swimming and Water Safety 3(2-2)
- PES 245 - Gymnastics 3(Spec)
- PES 279 - Sport First Aid 2(2-0)
- PES 304 - Youth Sports 2(2-0)
- PES 401 - Fundamentals of Motor Learning 3(3-0)
Mission
The College of Humanities and Social & Behavioral Sciences is a community of individuals who share a dedication to the life of the mind. Its fundamental purpose is to invigorate the intellectual lives of its students, faculty, and staff, and to promote an intellectual orientation in the larger communities it serves. In this spirit, the College challenges everyone to confront new and disturbing ideas with open minds and to reexamine old ideas with fresh eyes. Within the university, the mission of this College is to pursue disciplined inquiry into ideas and values that grow out of human experience, as well as the forces that shape human behavior and interaction. Since these areas of study - together with the natural sciences and the fine arts - are fundamental to the liberal arts education, the College plays a crucial role in liberal arts education. The College also teaches students to apply their knowledge to the resolution of human problems in the world at large, thereby preparing them for professions in which they will contribute to the well-being of others.

Goals
In order to fulfill all of these purposes, the College shall:
• provide high quality academic programs that develop the understandings and skills necessary for living in a complex and changing world;
• immerse the academic community in a multicultural and international environment;
• support programs of research and creative endeavors that add to our understanding of the human situation;
• share knowledge and skills with the larger community through service;
• attract and develop a diverse community of faculty, staff, and students;
• provide quality graduate programs whose graduates make important contributions to the discipline and to society.

The Role in Liberal Arts Education
In order that students may become more thoughtful citizens in our diverse society and more active participants in our changing and interdependent world, the College will help them to develop
• strong writing and speaking skills;
• abilities to think clearly and critically;
• abilities to use technology in support of life-long learning;
• familiarity with their intellectual and cultural heritages;
• an understanding of social, psychological, and political environments; and
• an appreciation of other peoples and cultures.

Areas of Study
Departmental
The eight departments in the College offer a wide spectrum of degree programs at CMU. Most fields of study lead to a major or minor, many with emphases and concentrations. The departments and their primary fields of study are:
• English Language and Literature (English, Creative Writing, World Literature, English as a Second Language)
• Foreign Languages, Literatures and Cultures (French, German, Spanish, and coursework in Japanese, Latin, Russian, Ojibwe)
• History (History)
• Military Science (Military Science)
• Philosophy and Religion (Philosophy and Religious Studies)
• Political Science (Political Science, International Relations, Public Administration)
• Psychology (Psychology)

See the index of this Bulletin for more information on each of the above programs. The staff of the College of Humanities and Social & Behavioral Sciences office can also help you locate the appropriate department and advisor (Anspach 106; 989-774-3341).

Programs for Education Degrees
Four departments in the College also offer majors or minors under the Bachelor of Science in Education degree. Majors with secondary certification include English, history, French, German, Spanish, and social studies. Minors with secondary certification include English, history, French, German, Spanish, and an interdisciplinary program in Bilingual Bicultural Education—Spanish. Other teacher education certifications can be earned in elementary education, elementary special education, secondary education, and secondary special education. Each of these programs has specific major and minor requirements, some of which are found in the College of Humanities and Social & Behavioral Sciences.

If you are interested in any of the programs leading to teacher certification, consult both the specific department of choice in the Bulletin and the sections on degree programs and teacher certification.
Interdisciplinary Studies

The College is home of several interdisciplinary majors and minors, including a cutting-edge major in neuroscience that combines coursework across the disciplines of psychology, biology, chemistry and health professions. Other interdisciplinary majors are European Studies, Language Arts, Women's Studies, Social Science and Cognitive Science. Interdisciplinary minors are available in Women’s Studies, Latin American Studies, and Humanities.

Courses offered under the designators HUM, LAR, and SSC are also interdisciplinary in character. See their descriptions in the Course Description section of the Bulletin.

Pre-Professional Studies

Professional programs such as law require certain basic preparatory work for acceptance into law school. Students should select a program of study that is strong in oral and written expression and fosters critical thinking skills and a critical understanding of the human institutions and values with which the law deals. There is no specific pre-law major, but Central Michigan University’s College of Humanities and Social & Behavioral Sciences can provide much of the needed preparation for law school admissions.

Graduate Programs

Six departments in the college offer graduate programs at the masters and/or doctoral level. The English Department offers three masters level programs: M.A. in English Language and Literature (also with a concentration in Creative Writing), M.A. in Composition and Communication, and M.A. in Teaching English to Speakers of Other Languages (TESOL). Foreign Languages offers a unique M.A. program in Spanish designed to enhance fluency, foster interaction with Hispanic cultures, broaden knowledge, and promote professional development. Courses are offered on weekends and summers, and students experience two study abroad placements.

History offers a traditional M.A. and a joint M.A. and Ph.D. program in transnational comparative history, administered by CMU and the University of Strathclyde in Glasgow, Scotland. Graduate programs in political science include the Masters of Public Administration and a traditional M.A. in political science. The department also offers courses contributing to a concentration in public administration in the Master of Science in Administration.

Psychology’s graduate programs include two masters level programs, a specialist degree, and four doctoral programs. They are the Master of Science in General/Experimental Psychology, a Master of Arts in Industrial/Organizational Psychology, a Specialist in Psychological Services in School Psychology, and Ph.D. programs in Clinical Psychology, School Psychology, Industrial/Organizational Psychology, and Applied Experimental Psychology. The Psychology Department has been a CMU Center for Excellence since 1992.

The Department of Sociology, Anthropology & Social Work offers a traditional M.A. in Sociology and an M.A. with a concentration in Social and Criminal Justice.

Combined Degrees

CMU offers several combined degree options. The Combined Bachelor of Arts or Science and a Master of Business Administration provides a well-rounded education by combining an undergraduate degree program in the more traditional liberal arts with graduate study in business administration. With appropriate advising and careful planning, the total time for completing both degrees will be five years.

Other combined degrees include the Integrated B.A./M.A. in History for highly motivated students. Students in this program accelerate their careers by undertaking graduate work toward the traditional Master of Arts degree concurrently with undergraduate work, as specified in the program of study and approved by the department and College of Graduate Studies.

Student Organizations

Nearly three dozen student organizations are affiliated with programs in the College of Humanities and Social & Behavioral Sciences. Among those groups are honor societies in English, foreign languages, history, military science, and psychology.

Other groups open to interested students include a literary journal; French, German, Japanese, and Spanish culture clubs; a variety of groups affiliated with military science; a pre-law organization that assists students in preparing for the LSAT; history, political science, social work, sociology, and psychology interest groups. Organizations schedule speakers and workshops, host annual meetings and initiation, sponsor educational travel, and engage in social activities. Dues and membership requirements vary. Contact the particular department or the Dean’s Office (Anspach 106) for a listing of organizations affiliated with the college. Additional information is also available on the college webpage at http://www.chsbs.cmich.edu.
Why Study English?
The study of English affords students the opportunity to master the crucial, interrelated skills of thinking, reading, and writing through the immersion in the manifold products of language. Courses in linguistics and composition teach the skills necessary for the understanding and effective use of language. Courses in literature aid students in absorbing the full range of literary thought and art, thereby rendering them better able to understand themselves and their world. Courses in the art of teaching enable English majors or minors to transmit effectively the acquired legacy of their education to future generations.

English Language and Literature at CMU
The English Department offers two basic programs: liberal arts and teaching. Within each of these broad programs there are still additional choices, including, for example, the World Literature or Creative Writing concentration or an emphasis on secondary or elementary English education. Each program requires between thirty-nine and forty-two hours for a major and twenty-four to twenty-seven hours for a minor, depending on the choice and emphasis.

Students who elect to major or minor in English should declare this intention before the end of their sophomore year. Junior transfer students should declare during their first semester on campus. The departmental office assigns advisors to aid students in their major/minor program planning and to authorize programs for graduation and teacher preparation.

Notes:
The English Department cannot guarantee that every course will be offered as designated.
The department strongly recommends that all majors take a foreign language as a cognate.
The English Language Institute offers a series of courses to assist students whose native language is not English to acquire the level of proficiency adequate for success in academic study. Because TOEFL scores are not always a reliable predictor of proficiency in English for academic tasks, the Institute gives new non-native speakers of English a placement test to determine their actual proficiency. On the basis of their placement scores, undergraduate students (1) will be required to enroll in ENG 198-199, American Language for International Students (or equivalent courses such as ENG 101 or ENG 103-099), successful completion of which demonstrates competence in basic writing or speech or both, and may pursue their academic program with no restriction; or (2) must enroll in the Institute full-time or part-time, depending upon their level of proficiency. In any case, all students enrolled in the Institute, before they pursue their studies full-time, must be certified by the Institute as having attained proficiency in academic English.

The Faculty
Anne Alton, Ronnie Apter, Ari Berk, William Brevda, Elizabeth Brockman, Kim Chinquee, MaryAnn Crawford, John S. Dinan, Maureen Eke, Mark Freed, Pam Gates, Susan Griffith, Desmond Harding, Rochelle Harris, Janice Hartwick-Dressel, Cathy Hicks-Kennard, Troy Hicks, Heidi Holder, Stephen C. Holder, Peter T. Koper, Melinda Kreth, Susan Larkin, Kristen McDermott, Gretchen Papazian, Daniel Patterson, John R. Pfeiffer, Ronald Primeau, Laura Renzi-Keener, Matt Roberson, Beth Samuelson, Susan Schiller, William Spruell, Susan Stan, Susan Steffel, Sharon Stevenson, Marcy Taylor, Griselda Thomas, Eric Torgersen, William Wandless, Jeffrey Weinstock, Mark Yakich, Stephenie Young

General statements that apply to English majors and minors
1. The number of hours in special topics electives may not exceed six hours for English majors and three hours for English minors. Correspondence credit and independent study in English are restricted to nine hours for the major and six hours for the minor.
2. The department supports the concept of advanced placement as well as exemption from required courses and credit earned through approved university examination programs.
3. ENG 070 to ENG 100, ENG 101, ENG 198, ENG 199, ENG 103/099 and ENG 201 do not apply on a major or minor.
4. English education majors and minors must present a minimal cumulative GPA 2.7 in all English course work for departmental approval for directed teaching and for teaching certification. All required course work must be completed before directed teaching, and all professional courses must be graded C+ or better.

Majors and Minors

English Major
B.S. in Ed. degree, Provisional Elementary Certification
See the General statements that apply to English majors and minors at the beginning of this section.

Core Courses (9 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 234 - Introduction to Literary Analysis 3(3-0)
ENG 460 - Senior Seminar: Current Issues in English 3(3-0)

Required Courses I (12 hours)
ENG 315 - Teaching Writing in the Elementary School 4(3-1)
ENG 330 - Mythological Backgrounds of Western Literature 3(3-0)
ENG 371 - Pedagogic Grammar 2(2-0)
ENG 381 - Children’s Literature 3(3-0)
Required Courses II (3 hours)
Select one of the following:
ENG 251 - American Literature: Colonial Through the Romantic Period 3(3-0)
ENG 252 - American Literature: Realistic Period to the Present 3(3-0)

Required Courses III (3 hours)
Select one of the following:
ENG 481 - International Literature for Children and Young Adults 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)

Electives I (3 hours)
Select one of the following:
ENG 482 - Fantasy for Youth 3(3-0)
ENG 580 - Literature for Young Adults 3(3-0)
ENG 581 - The History of Children's Literature 3(3-0)
ENG 583 - The Heroic Tradition in Children's Literature 3(3-0)

Electives II (3 hours)
Select one of the following:
ENG 294 - Introduction to Creative Writing 3(3-0)
ENG 385 - Poetry for Children and Young Adults 3(3-0)

Electives III (3 hours)
Although ENG 582 or ENG 481 is selected above, it may not be double-counted in this group. Select one of the following:
ENG 324 - Popular Culture in America 3(3-0)
ENG 326 - The Literary Dimensions of Film 3(2-2)
ENG 327 - Women Writers 3(3-0)
ENG 328 - Literature of the American Indian 3(3-0)
ENG 329 - African American Literature 3(3-0)
ENG 333 - Literatures of Non-Western Cultures 3(3-0)
ENG 481 - International Literature for Children and Young Adults 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)

Electives IV (3 hours)
Unrestricted English Electives

Total: 39 semester hours

English Minor
B.S. in Ed. degree, Provisional Elementary Certification and Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

See the General statements that apply to English majors and minors at the beginning of this section.

Core Courses (6 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 234 - Introduction to Literary Analysis 3(3-0)

Required Courses I (7 hours)
ENG 315 - Teaching Writing in the Elementary School 4(3-1)
ENG 381 - Children's Literature 3(3-0)

Required Courses II (3 hours)
Select one of the following:
ENG 251 - American Literature: Colonial Through the Romantic Period 3(3-0)
ENG 252 - American Literature: Realistic Period to the Present 3(3-0)

Required Courses III (3 hours)
Select one of the following:
ENG 481 - International Literature for Children and Young Adults 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)

Restricted Electives (3 hours)
Although ENG 582 or ENG 481 is selected above, it may not be double-counted in this group. Select one of the following:
ENG 385 - Poetry for Children and Young Adults 3(3-0)
ENG 481 - International Literature for Children and Young Adults 3(3-0)
ENG 482 - Fantasy for Youth 3(3-0)
ENG 581 - The History of Children's Literature 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
ENG 583 - The Heroic Tradition in Children's Literature 3(3-0)

Unrestricted English Electives (3 hours)
Choose 3 hours of unrestricted ENG courses.

Total: 25 semester hours

English Major
B.S. in Ed. degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

See the General statements that apply to English majors and minors at the beginning of this section.

Core Courses (9 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 234 - Introduction to Literary Analysis 3(3-0)
ENG 460 - Senior Seminar: Current Issues in English 3(3-0)

Required Courses I (15 hours)
ENG 251 - American Literature: Colonial Through the Romantic Period 3(3-0)
ENG 252 - American Literature: Realistic Period to the Present 3(3-0)

Required Courses II (3 hours)
Select one from the following:
ENG 251 - American Literature: Colonial Through the Romantic Period 3(3-0)
ENG 252 - American Literature: Realistic Period to the Present 3(3-0)

Required Courses III (3 hours)
Select one from the following:
ENG 235 - English Literature: Beginning to Romantic Period 3(3-0)
ENG 236 - English Literature: Romantic Period to Present 3(3-0)
ENG 261 - Masterpieces of Ancient Literature 3(3-0)
ENG 262 - Masterpieces of European Literature 3(3-0)

Required Courses IV (3 hours)
Select one from the following:
ENG 321 - 20th Century British and American Poetry 3(3-0)
ENG 336 - Early Modern English Literature 3(3-0)
ENG 339 - Victorian Literature and Thought 3(3-0)
ENG 340 - Modern British Literature 3(3-0)
ENG 351 - American Literature: Colonial and Early National Periods 3(3-0)
ENG 352 - American Literature: Romantic Period 3(3-0)
ENG 353 - American Literature: Realistic Period 3(3-0)
ENG 354 - American Literature: Modern Period 3(3-0)
ENG 362 - Literature of the Medieval World 3(3-0)
ENG 439 - English Romantic Poetry and Prose 3(3-0)
ENG 441 - Contemporary English Prose 3(3-0)
ENG 454 - Contemporary American Prose 3(3-0)
ENG 455 - The American Novel 3(3-0)
ENG 561 - European Romanticism: A Comparative Approach 3(3-0)

Required Courses V (3 hours)
Select one from the following:
ENG 328 - Literature of the American Indian 3(3-0)
ENG 329 - African American Literature 3(3-0)
ENG 333 - Literatures of Non-Western Cultures 3(3-0)

(continued)
Required Courses VI (3 hours)
Select one from the following:
ENG 334 - Literary and Cultural Theory 3(3-0)
ENG 345 - Studies in Authors 3(3-0)
ENG 435 - Studies in Texts 3(3-0)

Electives (3 hours)
Choose 3 hours of ENG courses.

Total: 42 semester hours

English Minor

B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

See the General statements that apply to English majors and minors at the beginning of this section.

Core Courses (6 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 234 - Introduction to Literary Analysis 3(3-0)

Required Courses I (3 hours)
Select one of the following:
ENG 251 - American Literature: Colonial Through the Romantic Period 3(3-0)
ENG 252 - American Literature: Realistic Period to the Present 3(3-0)

Required Courses II (3 hours)
Select one of the following:
ENG 235 - English Literature: Beginning to Romantic Period 3(3-0)
ENG 236 - English Literature: Romantic Period to Present 3(3-0)
ENG 261 - Masterpieces of Ancient Literature 3(3-0)
ENG 262 - Masterpieces of European Literature 3(3-0)

Required Courses III (8 hours)
ENG 349 - Shakespeare 3(3-0)
ENG 371 - Pedagogic Grammar 2(2-0)
ENG 580 - Literature for Young Adults 3(3-0)

Required Courses IV (3-4 hours)
Select one of the following:
ENG 294 - Introduction to Creative Writing 3(3-0)

Electives (12 hours)
Selected in consultation with an advisor.

Concentrations
Select one of the following concentrations:

General Concentration

Required Courses I (3 hours)
Select one of the following:
ENG 321 - Modern British and American Poetry 3(3-0)
ENG 332 - Contemporary Literature and Thought 3(3-0)
ENG 336 - Early Modern English Literature 3(3-0)
ENG 339 - Victorian Literature and Thought 3(3-0)
ENG 340 - Modern British Literature 3(3-0)
ENG 351 - American Literature: Colonial and Early National Periods 3(3-0)
ENG 352 - American Literature: Romantic Period 3(3-0)
ENG 353 - American Literature: Realistic Period 3(3-0)
ENG 354 - American Literature: Modern Period 3(3-0)
ENG 362 - Literature of the Medieval World 3(3-0)
ENG 439 - English Romantic Poetry and Prose 3(3-0)
ENG 441 - Contemporary English Prose 3(3-0)
ENG 454 - Contemporary American Prose 3(3-0)
ENG 455 - The American Novel 3(3-0)
ENG 561 - European Romanticism: A Comparative Approach 3(3-0)

Required Courses II (3 hours)
Select one of the following:
ENG 334 - Literary and Cultural Theory 3(3-0)
ENG 345 - Studies in Authors 3(3-0)
ENG 435 - Studies in Texts 3(3-0)

Required Course III (3 hours)
ENG 294 - Introduction to Creative Writing 3(3-0)

Creative Writing Concentration

Required Courses I (3 hours)
One course chosen from:
ENG 321 - Modern British and American Poetry 3(3-0)
ENG 332 - Contemporary Literature and Thought 3(3-0)
ENG 336 - Early Modern English Literature 3(3-0)
ENG 339 - Victorian Literature and Thought 3(3-0)
ENG 340 - Modern British Literature 3(3-0)
ENG 351 - American Literature: Colonial and Early National Periods 3(3-0)
ENG 352 - American Literature: Romantic Period 3(3-0)
ENG 353 - American Literature: Realistic Period 3(3-0)
ENG 354 - American Literature: Modern Period 3(3-0)
ENG 362 - Literature of the Medieval World 3(3-0)
ENG 439 - English Romantic Poetry and Prose 3(3-0)
ENG 441 - Contemporary English Prose 3(3-0)
ENG 454 - Contemporary American Prose 3(3-0)
ENG 455 - The American Novel 3(3-0)
ENG 561 - European Romanticism: A Comparative Approach 3(3-0)

Required Courses II (3 hours)
Select one of the following:
ENG 321 - Modern British and American Poetry 3(3-0)
ENG 332 - Contemporary Literature and Thought 3(3-0)
ENG 336 - Early Modern English Literature 3(3-0)
ENG 339 - Victorian Literature and Thought 3(3-0)
ENG 340 - Modern British Literature 3(3-0)
ENG 351 - American Literature: Colonial and Early National Periods 3(3-0)
ENG 352 - American Literature: Romantic Period 3(3-0)
ENG 353 - American Literature: Realistic Period 3(3-0)
ENG 354 - American Literature: Modern Period 3(3-0)
ENG 362 - Literature of the Medieval World 3(3-0)
ENG 439 - English Romantic Poetry and Prose 3(3-0)
ENG 441 - Contemporary English Prose 3(3-0)
ENG 454 - Contemporary American Prose 3(3-0)
ENG 455 - The American Novel 3(3-0)
ENG 561 - European Romanticism: A Comparative Approach 3(3-0)

Electives (12 hours)
Selected in consultation with an advisor.
Required Courses IV (9 hours)
Students may focus in poetry, prose, or both by selecting 9 hours from among the following:
ENG 391 - Creative Writing: Fiction 3(3-0)
ENG 392 - Creative Writing: Poetry 3(3-0)
ENG 491 - Advanced Fiction Writing 3-6(3-0)
ENG 492 - Advanced Poetry Writing 3-6(3-0)
Note: Take either ENG 491 or ENG 492; the selected course may be repeated up to six hours with the same instructor.
Note: All creative writing courses have prerequisites.

World Literature Concentration
Required Courses I (3 hours)
One course from:
ENG 321 - 20th Century British and American Poetry 3(3-0)
ENG 322 - Contemporary Literature and Thought 3(3-0)
ENG 323 - Literatures of Non-Western Cultures 3(3-0)
ENG 336 - Early Modern English Literature 3(3-0)
ENG 339 - Victorian Literature and Thought 3(3-0)
ENG 340 - Modern British Literature 3(3-0)
ENG 351 - American Literature: Colonial and Early National Periods 3(3-0)
ENG 352 - American Literature: Romantic Period 3(3-0)
ENG 353 - American Literature: Realistic Period 3(3-0)
ENG 354 - American Literature: Modern Period 3(3-0)
ENG 362 - Literature of the Medieval World 3(3-0)
ENG 455 - The American Novel 3(3-0)

Required Courses II (3 hours)
One course from:
ENG 345 - Studies in Authors 3(3-0)
ENG 346 - Studies in Texts 3(3-0)

Required Courses III (12 hours)
Select from the following:
ENG 261 - Masterpieces of Ancient Literature 3(3-0)
ENG 262 - Masterpieces of European Literature 3(3-0)
ENG 330 - Mythological Backgrounds of Western Literature 3(3-0)
ENG 332 - Contemporary Literature and Thought 3(3-0)
ENG 333 - Literatures of Non-Western Cultures 3(3-0)
ENG 365 - The Bible as Literature 3(3-0)
ENG 561 - European Romanticism: A Comparative Approach 3(3-0)
ENG 569 - Seminar in Major World Writers 3-9(Spec)

Total: 39 semester hours
Note: One of the courses chosen from Literature or the linguistics courses in the Core must cover a literary period prior to 1800.

English Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

See the General statements that apply to English majors and minors at the beginning of this section.

Required Courses I (6 hours)
ENG 234 - Introduction to Literary Analysis 3(3-0)
ENG 349 - Shakespeare 3(3-0)

Required Courses II (3 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 271 - Modern Grammar 3(3-0)
ENG 375 - Introduction to Linguistics 3(3-0)
ENG 379 - History and Development of the English Language 3(3-0)
ENG 545 - Chaucer 3(3-0)
ENG 570 - Old English 3(3-0)

Required Courses III (6 hours)
Two of the following:
ENG 235 - English Literature: Beginning to Romantic Period 3(3-0)
ENG 236 - English Literature: Romantic Period to Present 3(3-0)

ENG 251 - American Literature: Colonial Through the Romantic Period 3(3-0)
ENG 252 - American Literature: Realistic Period to the Present 3(3-0)
ENG 261 - Masterpieces of Ancient Literature 3(3-0)
ENG 262 - Masterpieces of European Literature 3(3-0)

Required Courses IV (3 hours)
Select one of the following:
ENG 332 - Contemporary Literature and Thought 3(3-0)
ENG 336 - Early Modern English Literature 3(3-0)
ENG 339 - Victorian Literature and Thought 3(3-0)
ENG 340 - Modern British Literature 3(3-0)
ENG 351 - American Literature: Colonial and Early National Periods 3(3-0)
ENG 352 - American Literature: Romantic Period 3(3-0)
ENG 353 - American Literature: Realistic Period 3(3-0)
ENG 354 - American Literature: Modern Period 3(3-0)
ENG 362 - Literature of the Medieval World 3(3-0)
ENG 439 - English Romantic Poetry and Prose 3(3-0)
ENG 441 - Contemporary English Prose 3(3-0)
ENG 454 - Contemporary American Prose 3(3-0)
ENG 561 - European Romanticism: A Comparative Approach 3(3-0)

Electives (6 hours)
Choose 6 hours of ENG courses.

Total: 24 semester hours

English as a Second Language Minor
B.S. in Ed., Provisional Elementary or Secondary Certification

Admission Requirements, Retention & Termination Standards
To receive an English as a Second Language Minor, students must complete a program of 24 credit hours. In addition, they must have two years (or the equivalent) of college level experience in learning a foreign language. For students who are nonnative speakers of English, evidence of language proficiency in English is required. This may be demonstrated by one of a-d below.

a. TOEFL score of IBT 79 and a TWE (or computer-based essay) score of 5.0,
b. Equivalency scores for TOEFL and TWE on the CMU ELI Placement Test Series,
c. Successful completion of a course of study (e.g., high school diploma) in which the language of instruction is English,
d. Successful completion of at least twelve credit hours of work in a recognized undergraduate program in which the language of instruction is English.

Nonnative speakers of English whose TOEFL scores are between 61 and 79 IBT and/or whose TWE (or computer-based essay) scores are between 4.0 and 5.0 may be admitted conditionally. All such applicants will be asked to take the CMU ELI Placement Test Series when they arrive at CMU, and may be asked to take courses in the English Language Institute depending on their performance on that test.

Required Courses I (15 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 375 - Introduction to Linguistics 3(3-0)
ENG 571 - Teaching of English to Speakers of Other Languages 3(3-0)
ENG 574 - TESOL Materials, Assessment, Curriculum 3(3-0)
ENG 577 - Introduction to Second Language Acquisition 3(3-0)

Required Courses II (3 hours)
EDU 513 - Foundations of Bilingual Bicultural Education 3(3-0)
ENG 578 - Applied Sociolinguistics 3(3-0)

(continued)
**Foreign Languages, Literatures, and Cultures**  
(FLN, FRN, GER, SPN, CHN, GRK, JPN, LAT, OJB, RUS)

For information, please contact the chairperson, 774-3786, 305 Pearce Hall

**Why Study Foreign Languages, Literatures, and Cultures?**

Students who want to develop skills in foreign language teaching, interpreting, and translating will pursue studies in this area. These studies are also for students who want to use language as an auxiliary skill. Wider employment opportunities are available for those who combine knowledge of a foreign language with majors such as: anthropology, broadcast and cinematic arts, business and administration, counselor education, journalism, library science, political science, social work, travel, tourism, and hospitality. Foreign languages should also be considered by students who plan on attending graduate or professional schools, those wishing to gain a greater understanding of their cultural heritage, and those who want to enrich their leisure time pursuits.

**Foreign Languages, Literatures, and Cultures at CMU**

Students with no previous language experience in French, German, or Spanish should begin with a language course numbered 101. Students with previous language experience must take the placement exam. In each language the course sequence is 101, 102, 201, 202. If you have any questions regarding your placement, contact an advisor. Advisors are: for French - Brookes, Palka, Ransom; for German - Jones, Lein, Richter; for Japanese - Richardson; for Spanish - Barraza-Toledo, Courtad, Hurtado, Jackson, Knight, Kulawik, Rengifo, and Richardson.

**Study Abroad.** Students can register at CMU to study abroad at the following institutions:

**French** - in Rennes at the University of Haute-Bretagne; in Angers at the Centre International d'Etudes Françaises; in Annecy at the Institut Français; in Canada at the University of Quebec at Chicoutimi. CMU and the University of Quebec at Chicoutimi offer a joint scholarship of $600 for study during the five week immersion program. This grant is for majors or minors in French to study at UQAC.

**German** - in the spring semester at the Tandem Program in Bielefeld. The course lasts for 16 weeks, and students receive 12 credits upon successful completion. Programs at Goethe Institutes can be taken in the summer. In addition, we offer three exchange scholarships to eligible majors in German for a year's study at a German university. The scholarship includes tuition, room and board, and spending money for the entire year.

**Japanese** - in Hikone at the Japan Center for Michigan Universities, and in Nara at Nara University of Education. In Costa Rica: at Santa Ana Conversa at San José Universidad Veritas.

**Spanish** - in Spain: the University of Alicante, Center for Cross-Cultural Studies (Sevilla), Cursos Americanos e Internacionales (Segovia); in the Dominican Republic: CCIS; in Chile: at the Universidad Austral de Chile (Valdivia) and the Pontificia Universidad Catolica (Valparaiso); in Mexico: the Universidad Autonoma de Queretaro and the UDLAP (Puebla); in Argentina: Universidad de Belgrano; in Ecuador: the Universidad San Francisco de Quito.

Credit for courses abroad is arranged in consultation with advisors from the foreign language faculty and the director of the Office of International Education. Guaranteed Student Loans, Pell Grants and other financial aid plans are available for programs abroad.

**The Faculty**

Vania Barraza-Toledo, Christine Brookes, Taryn Corrigan, James Courtad, Cynthia Espinosa, Mary Gillingham, Dale Hartkemeyer, Luz Marcela Hurtado, Mary-Garland Jackson, James Jones, Susan Knight, Krzysztof Kulawik, Janet D. Lein, Lorrie Murray, Keith Palka, Amy Ransom, Alejandra Rengifo, Norma H. Richardson, Daniela Richter
French Language

**Admission Requirements, Retention & Termination Standards**

The sequence 101-102-201-202 provides the basis for all advanced study in French. Without previous language experience, prospective majors and minors begin with 101. Students who have previously studied French must take the placement test. They are placed higher in the sequence based on previously attained skills in French. For placement questions contact the .

**Notes:**

All French majors are required to take nine hours of language at the 300 level or above on campus.

One course at the 300 level or 400 level taken on a CR/NC basis may be counted toward a major or minor.

**CLEP:** The department accepts up to four credit hours of CLEP credit per language.

**Advanced Placement:** Credit is given for a score of three or above; a score of five requires a departmental review and an interview with the student.

**International Baccaulaurate:** Credit is given for a score of three or above after a departmental review of each case and an interview with the student.

**Transfer Students** majoring in French must earn at least nine credit hours in their major at CMU; those minoring must earn at least six credit hours in their minor at CMU. These hours must be taken on campus.

**Retroactive Credit:** Students who enroll in an entry level course (102, 201, 202), or a course beyond 202 (FRN 315 or 316), and receive a B (3.0) or better are eligible for up to 8 hours of retroactive credit. To qualify, students must be enrolled at the level determined by their score on the placement test, or at a higher level. Earned credits count toward the University Program, but retroactive credits do not.

**B.S.Ed. degree, Provisional Elementary or Secondary Certification or Provisional Elementary or Secondary Certification with Emotional or Cognitive Impairment Endorsement**

The B.S.Ed. degree option requires students to pass all portions of the French proficiency exam before taking any foreign language methods courses (FRN 411, 412, 421, 422). Majors and minors will be admitted to student teaching in French only if they have a GPA of 3.0 in French. FRN 411, 412, 421, and 422 are not courses in language studies and are not considered in the GPA.

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**French Major**

*B.S. in Ed., Provisional Elementary or Secondary Certification*

At least 35 hours of FRN courses at the 300 level or above.

**Admission Requirements, Retention & Termination Standards**

See the information at the beginning of the French section.

**Core Courses (10 hours)**

- FRN 315 - Advanced French I 3(3-0)
- FRN 316 - Advanced French II 3(3-0)
- FRN 417 - Advanced Conversation and Composition 3(3-0)
- FRN 430 - French Culture Web Pages 1(1-0)

**Note:** FRN 430 is the Capstone course for French majors.

**Required Courses I (12 hours)**

Select courses in French and Francophone culture and/or literature from:

- FRN 320 - French Civilization 3(3-0)
- FRN 321 - France Today 3(3-0)
- FRN 330 - Survey of French Literature (Beginning to 1800) 3(3-0)
- FRN 331 - Survey of French Literature (1800 to Present) 3(3-0)
- FRN 333 - Survey of Francophone Literature 3(3-0)

- FRN 403 - French Literature of the Middle Ages and Renaissance 3(3-0)
- FRN 404 - French Literature of the Seventeenth Century 3(3-0)
- FRN 406 - French Literature of the Eighteenth Century 3(3-0)
- FRN 407 - French Literature of the Nineteenth Century 3(3-0)
- FRN 409 - French Literature of the Twentieth Century 3(3-0)
- FRN 420 - Literature and Culture of Quebec 3(3-0)
- FRN 591 - Studies in French Culture 1-6(Spec)

**Required Courses II (3-6 hours)**

Select one of the following for a minimum of 3 hours:

- FRN 310 - Study Abroad 1-18(Spec)
- FRN 410 - Study Abroad 1-12(Spec)

**Note:** Students unable to study abroad may substitute FRN 370 (3) and one other three credit French course at the 300 level or above, with the approval of a French faculty advisor.

**Other Requirements**

Select one of the following two options:

**Option 1 - Secondary (4-9 hours)**

**Other Requirements (4 hours)**

- Required Courses for the B.S. in Ed. Degree, Provisional Secondary Certification

  - FRN 411 - Practicum in Teaching French 3(2-1)
  - FRN 412 - Practicum: Secondary Field Experience 1(Spec)

**Other Requirements (K-12) (0-5 hours)**

- Required Courses only if student desires to add K-12 Certification to the B.S. in Ed. degree, Provisional Secondary Certification:
  - EDU 280 - Education of Children 3(3-0)
  - FRN 421 - Foreign Language in Elementary Schools 1(1-0)
  - FRN 422 - Practicum: Elementary Field Experience 1(Spec)

**Option 2 - Elementary (5-9 hours)**

**Other Requirements (5 hours)**

- Required Courses for the B.S. in Ed. Degree, Provisional Elementary Certification

  - FRN 411 - Practicum in Teaching French 3(2-1)
  - FRN 421 - Foreign Language in Elementary Schools 1(1-0)
  - FRN 422 - Practicum: Elementary Field Experience 1(Spec)

**Other Requirements (K-12) (0-4 hours)**

- Required Courses only if student desires to add K-12 Certification to the B.S. in Ed. degree, Provisional Elementary Certification:
  - EDU 310 - Psychological Foundations of Education 3(3-0)
  - FRN 412 - Practicum: Secondary Field Experience 1(Spec)

**Electives (6 hours)**

Select electives at 300 level or above.

**Total:** 35-39 semester hours

**With additional requirements for K-12 certification (4-5 hours):**

**Total:** 39-44 semester hours
French Major
B.A.; B.S. degrees
At least 31 hours of FRN courses at the 300 level or above.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
See the information at the beginning of the French section.

Core Courses (10 hours)
FRN 315 - Advanced French I 3(3-0)
FRN 316 - Advanced French II 3(3-0)
FRN 417 - Advanced Conversation and Composition 3(3-0)
FRN 430 - French Culture Web Pages 1(1-0)

Note: FRN 430 is the capstone course for French majors.

Required Courses I (12 hours)
Courses in French and Francophone culture and/or literature from:
FRN 320 - French Civilization 3(3-0)
FRN 321 - France Today 3(3-0)
FRN 330 - Survey of French Literature (Beginning to 1800) 3(3-0)
FRN 331 - Survey of French Literature (1800 to Present) 3(3-0)
FRN 333 - Survey of Francophone Literature 3(3-0)
FRN 403 - French Literature of the Middle Ages and Renaissance 3(3-0)
FRN 404 - French Literature of the Seventeenth Century 3(3-0)
FRN 405 - French Literature of the Eighteenth Century 3(3-0)
FRN 407 - French Literature of the Nineteenth Century 3(3-0)
FRN 409 - French Literature of the Twentieth Century 3(3-0)
FRN 420 - Literature and Culture of Quebec 3(3-0)
FRN 591 - Studies in French Culture 1-6(Spec)

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
FRN 310 - Study Abroad 1-18(Spec)
FRN 410 - Study Abroad 1-12(Spec)

Note: Students who are unable to study abroad may substitute FRN 370 (3) and one other three-credit French course at the 300 level or above, with the approval of a French faculty advisor.

Electives (6 hours)
Select electives at 300 level or above.

Total: 31-34 semester hours

French Minor
B.S. in Ed., Provisional Elementary Certification
At least 25 hours of FRN courses including 19 hours at the 300 level or above.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
See the information at the beginning of the French section.

Core Courses (9 hours)
FRN 315 - Advanced French I 3(3-0)
FRN 316 - Advanced French II 3(3-0)
FRN 417 - Advanced Conversation and Composition 3(3-0)

Required Courses I (6 hours)
Select courses in French and Francophone culture and/or literature from:
FRN 320 - French Civilization 3(3-0)
FRN 321 - France Today 3(3-0)
FRN 330 - Survey of French Literature (Beginning to 1800) 3(3-0)
FRN 331 - Survey of French Literature (1800 to Present) 3(3-0)
FRN 333 - Survey of Francophone Literature 3(3-0)
FRN 403 - French Literature of the Middle Ages and Renaissance 3(3-0)
FRN 404 - French Literature of the Seventeenth Century 3(3-0)
FRN 406 - French Literature of the Eighteenth Century 3(3-0)
FRN 407 - French Literature of the Nineteenth Century 3(3-0)
FRN 409 - French Literature of the Twentieth Century 3(3-0)
FRN 420 - Literature and Culture of Quebec 3(3-0)
FRN 591 - Studies in French Culture 1-6(Spec)

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
FRN 310 - Study Abroad 1-18(Spec)
FRN 410 - Study Abroad 1-12(Spec)

Note: Students unable to study abroad may substitute FRN 370 (3) and one other three-credit French course at the 300 level or above, with the approval of a French faculty advisor.

Electives (3 hours)
Must be at 300 level or above.

Total: 25-28 semester hours
French Minor
B.S. in Ed., Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

At least 24 hours of FRN courses including 19 hours at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See the information at the beginning of the French section.

Core Courses (9 hours)
FRN 315 - Advanced French I 3(3-0)
FRN 316 - Advanced French II 3(3-0)
FRN 417 - Advanced Conversation and Composition 3(3-0)

Required Courses I (6 hours)
FRN 320 - French Civilization 3(3-0)
FRN 321 - France Today 3(3-0)
FRN 330 - Survey of French Literature (Beginning to 1800) 3(3-0)
FRN 331 - Survey of French Literature (1800 to Present) 3(3-0)
FRN 333 - Survey of Francophone Literature 3(3-0)
FRN 403 - French Literature of the Middle Ages and Renaissance 3(3-0)
FRN 404 - French Literature of the Seventeenth Century 3(3-0)
FRN 406 - French Literature of the Eighteenth Century 3(3-0)
FRN 407 - French Literature of the Nineteenth Century 3(3-0)
FRN 409 - French Literature of the Twentieth Century 3(3-0)

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
FRN 310 - Study Abroad 1-18(Spec)
FRN 410 - Study Abroad 1-12 (Spec)

Electives (3 hours)
Select electives at 300 level or above.
Total: 24-27 semester hours

French Minor
B.A.; B.S. degrees

At least 21 hours of FRN courses at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See the information at the beginning of the French section.

Core Courses (9 hours)
FRN 315 - Advanced French I 3(3-0)
FRN 316 - Advanced French II 3(3-0)
FRN 417 - Advanced Conversation and Composition 3(3-0)

Required Courses I (6 hours)
Courses in French and Francophone culture and/or literature from:
FRN 320 - French Civilization 3(3-0)
FRN 321 - France Today 3(3-0)
FRN 330 - Survey of French Literature (Beginning to 1800) 3(3-0)
FRN 331 - Survey of French Literature (1800 to Present) 3(3-0)
FRN 333 - Survey of Francophone Literature 3(3-0)
FRN 403 - French Literature of the Middle Ages and Renaissance 3(3-0)
FRN 404 - French Literature of the Seventeenth Century 3(3-0)
FRN 406 - French Literature of the Eighteenth Century 3(3-0)
FRN 407 - French Literature of the Nineteenth Century 3(3-0)
FRN 409 - French Literature of the Twentieth Century 3(3-0)
FRN 420 - Literature and Culture of Quebec 3(3-0)

Required Courses II (3 hours)
Students unable to study abroad may substitute FRN 370 (3) and one other 3 credit French course at the 300 level or above, with the approval of a French faculty advisor.

Electives (3 hours)
Electives at 300 level or above.
Total: 21-24 semester hours

German Language

Admission Requirements, Retention & Termination Standards
The sequence 101-102-201-202 provides the basis for all advanced study in German. Without previous language experience, prospective majors and minors begin with 101. Students who have previously studied German must take the placement test. They are placed higher in the sequence based on previously attained skills in German. For placement questions, contact the department.

Notes:
All German majors are required to take nine hours of language at the 300 level or above on campus.
One course at the 300 level or 400 level taken on a CR/NC basis may be counted toward a major or minor.
CLEP: The department accepts up to four credit hours of CLEP credit per language.
Advanced Placement: Credit is given for a score of three or above; a score of five requires a departmental review and an interview with the student.
International Baccalaureate: Credit is given for a score of three or above after a departmental review of each case and an interview with the student.

Transfer Students
Majors in German must earn at least nine credit hours in their major at CMU; those minoring must earn at least six credit hours in their minor at CMU. These hours must be taken on campus.
Retroactive Credit: Students who enroll in an entry level course (102, 201, 202), or a course beyond 202 (GER 311 or 312), and receive a B (3. 0) or better are eligible for up to 8 hours of retroactive credit. To qualify, students must be enrolled at the level determined by their score on the placement test, or at a higher level. Earned credits count toward the University Program, but retroactive credits do not.

B.S.Ed. degree, Provisional Elementary or Secondary Certification or Provisional Elementary or Secondary Certification with Emotional or Cognitive Impairment Endorsement
The B.S. in Ed. degree option requires students to pass all portions of the proficiency exam in German before taking any methods courses (GER 411, 412, 421, and 422). Majors and minors will be admitted to student teaching in German only if they have a GPA of 3. 0 in German. GER 411, 412, 421, and 422 are not courses in language studies and are not considered in the GPA.

German Major
B.S. in Ed., Provisional Elementary or Secondary Certification
At least 34 hours of GER courses at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See information at the beginning of the German section.
Core Courses (9 hours)
GER 311 - Advanced German I 3(3-0)
GER 312 - Advanced German II 3(3-0)
GER 570 - Advanced Grammar and Composition 3(3-0)

Required Courses I (12 hours)
Select courses in German culture and/or literature from:
GER 335 - The Culture of the German Economy 3(3-0)
GER 336 - The Culture of German Business 3(3-0)
GER 341 - German Cultural History I 3(3-0)
GER 342 - German Cultural History II 3(3-0)
GER 343 - Survey of German Literature I 3(3-0)
GER 344 - Survey of German Literature II 3(3-0)
GER 347 - German Cultural History III 3(3-0)
GER 350 - Highlights of German Film 3(3-0)
GER 370 - Advanced Studies in German 1-12(Spec)
GER 403 - German Literature to 1776 3(3-0)
GER 405 - German Classicism 3(3-0)
GER 407 - German Literature of the Nineteenth Century 3(3-0)
GER 409 - German Literature of the Twentieth Century 3(3-0)
GER 470 - Advanced Studies in German 1-12(Spec)

Note: GER 370 and 470 can be taken more than once with permission of the advisor.

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
GER 310 - German Language Study Abroad 1-12(Spec)
GER 410 - Study Abroad 1-24(Spec)

Note: Students unable to study abroad must take an additional 6 hours of coursework on campus that is at the 300 level or above and approved by an advisor.

Other Requirements
Select one of the following two options:

Option 1 - Secondary (4-9 hours)
Other Requirements (4 hours)
Required Courses for B.S. in Ed. Degree, Provisional Secondary Certification
GER 411 - Practicum in Teaching German 3(2-1)
GER 412 - Practicum: Secondary Field Experience 1(Spec)

Other Requirements (K-12) (0-5 hours)
Required Courses only if student desires to add K-12 Certification to the B.S. in Ed. Degree, Provisional Secondary Certification
EDU 280 - Education of Children 3(3-0)
GER 421 - Foreign Language in Elementary Schools 1(1-0)
GER 422 - Practicum: Elementary Field Experience 1(Spec)

Option 2 - Elementary (5-9 hours)
Other Requirements (5 hours)
Required Courses for B.S. in Ed. Degree, Provisional Elementary Certification
GER 411 - Practicum in Teaching German 3(2-1)
GER 411 - Practicum in Teaching German 3(2-1)
GER 411 - Practicum in Teaching German 3(2-1)
GER 411 - Practicum in Teaching German 3(2-1)
GER 422 - Practicum: Elementary Field Experience 1(Spec)

Other Requirements (K-12) (0-4 hours)
Required Courses only if student desires to add K-12 Certification to the B.S. in Ed. Degree, Provisional Elementary Certification
EDU 310 - Psychological Foundations of Education 3(3-0)
GER 412 - Practicum: Secondary Field Experience 1(Spec)

Electives (6 hours)
Electives at the 300 level or above.

Total: 34-38 semester hours
Additional requirements for K-12 certification on B.S. in Ed. degree options (4-5 hours):
Total: 39-42 semester hours
Required Courses I (6 hours)
Select one of the following for a minimum of 3 hours:
GER 311 - Advanced German I 3(3-0)
GER 312 - Advanced German II 3(3-0)
GER 570 - Advanced Grammar and Composition 3(3-0)

Required Courses II (3-6 hours)
Select hours from the following:
GER 335 - The Culture of the German Economy 3(3-0)
GER 336 - The Culture of German Business 3(3-0)
GER 341 - German Cultural History I 3(3-0)
GER 342 - German Cultural History II 3(3-0)
GER 343 - Survey of German Literature I 3(3-0)
GER 344 - Survey of German Literature II 3(3-0)
GER 347 - German Cultural History III 3(3-0)
GER 350 - Highlights of German Film 3(3-0)
GER 370 - Advanced Studies in German 3(3-0)
GER 407 - German Literature of the Nineteenth Century 3(3-0)
GER 409 - German Literature of the Twentieth Century 3(3-0)
GER 470 - Advanced Studies in German 1-12(Spec)

Required Courses III (3 hours)
Required Courses for B.S. in Ed. Degree
Required Courses for B.S. in Ed., Provisional Elementary Certification
At least 25 hours of GER courses including 19 hours at the 300 level or above.

Electives (3 hours)
Choose electives at the 300 level or above.
Total: 21-24 semester hours

German Minor
B.S. in Ed., Provisional Elementary Certification
At least 25 hours of GER courses including 19 hours at the 300 level or above.

Required Courses I (6 hours)
Select one of the following for a minimum of 3 hours:
GER 311 - Advanced German I 3(3-0)
GER 312 - Advanced German II 3(3-0)
GER 570 - Advanced Grammar and Composition 3(3-0)

Required Courses II (3-6 hours)
Select hours from the following:
GER 335 - The Culture of the German Economy 3(3-0)
GER 336 - The Culture of German Business 3(3-0)
GER 341 - German Cultural History I 3(3-0)
GER 342 - German Cultural History II 3(3-0)
GER 343 - Survey of German Literature I 3(3-0)
GER 344 - Survey of German Literature II 3(3-0)
GER 347 - German Cultural History III 3(3-0)
GER 350 - Highlights of German Film 3(3-0)
GER 370 - Advanced Studies in German 3(3-0)
GER 407 - German Literature of the Nineteenth Century 3(3-0)
GER 409 - German Literature of the Twentieth Century 3(3-0)
GER 470 - Advanced Studies in German 1-12(Spec)

Required Courses III (3 hours)
Required Courses for B.S. in Ed. Degree
GER 411 - Practicum in Teaching German 3(2-1)

Electives (3 hours)
Choose electives at the 300 level or above.
Total: 24-27 semester hours

Spanish Language

Admission Requirements, Retention & Termination Standards
The department offers majors and minors in Spanish. The sequence 101-102-201-202-214 provides the basis for all advanced study in Spanish. Without previous language experience, prospective majors and minors begin with 101. Students who have previously studied Spanish must take the placement test. They are placed higher in the sequence based on previously attained skills in Spanish. For placement questions, contact the department.

Notes:
All Spanish majors are required to take nine hours of language at the 300 level or above on campus. One course at the 300 level or 400 level taken on a CR/NC basis may be counted toward a major or minor.
CLEP: The department accepts up to four credit hours of CLEP credit per language.

Advanced Placement: Credit is given for a score of three or above; a score of five requires a departmental review and an interview with the student.

International Baccalaureate: Credit is given for a score of three or above after a departmental review of each case and an interview with the student.

Transfer Students: majoring in Spanish must earn at least nine credit hours in their major at CMU; those minorinig must earn at least six credit hours in their minor at CMU. These hours must be taken on campus.
Retroactive Credit: Students who enroll in an entry level course (102, 201, 202), or a course beyond 202 (SPN 214 or 331), and receive a B (3.0) or better are eligible for up to 8 hours of retroactive credit. To qualify, students must be enrolled at the level determined by their score on the placement test, or at a higher level. Earned credits count toward the University Program, but retroactive credits do not.

B.S.Ed. degree, Provisional Elementary or Secondary Certification or Provisional Elementary or Secondary Certification with Emotional or Cognitive Impairment Endorsement

The B.S. in Ed. degree option requires students to pass all portions of the proficiency exam in Spanish before taking any methods courses (SPN 411, 412, 421, and 422). Majors and minors will be admitted to student teaching in Spanish only if they have a GPA of 3.0 in Spanish. SPN 411, 412, 421, and 422 are not courses in language studies and are not considered in the GPA.

Spanish Major

B.S. in Ed., Provisional Elementary or Secondary Certification

At least 34 hours of SPN courses including 31 hours at the 300 level or above.

Admission Requirements, Retention & Termination Standards

See information at the beginning of the Spanish section.

Core Courses (15 hours)

- SPN 320 - Spanish Pronunciation 3(3-0)
- SPN 331 - Advanced Grammar and Composition 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 377 - Culture and Civilization of Latin America 3(3-0)

Required Courses I (12 hours)

Select one course from the following, plus 3 SPN credits at the 300 level or above and 6 SPN credits at the 400 level or above.

- SPN 370 - Advanced Studies in Spanish 1-4(Spec)
- SPN 386 - Survey of Spanish Literature (Beginning to 1700) 3(3-0)
- SPN 387 - Survey of Spanish Literature (1700 to Present) 3(3-0)
- SPN 388 - Survey of Spanish-American Literature (Beginnings to Modernism) 3(3-0)
- SPN 389 - Survey of Spanish-American Literature (Modernism to Present) 3(3-0)

Note: SPN 370 may count for the required literature course when the topic deals with literature.

Required Courses II (3-6 hours)

Select one of the following for a minimum of 3 hours:

- SPN 310 - Study Abroad 1-12(Spec)
- SPN 410 - Study Abroad 1-12(Spec)

Note: Students unable to study abroad will be required to take an additional six (6) hours of coursework that is on campus, at the 300 level or above, and approved by an advisor.

Other Requirements (4-9 hours)

Select one of the following two options:

Option 1 - Secondary (4-9 hours)

Other Requirements I (4 hours)

Required Courses for B.S. in Ed. Degree, Provisional Secondary Certification

- SPN 411 - Practicum in Teaching Spanish 3(2-1)
- SPN 412 - Practicum: Secondary Field Experience 1(Spec)

Option 2 - Elementary (5-9 hours)

Other Requirements I (5 hours)

Required Courses for the B.S. in Ed. Degree, Provisional Elementary Certification

- SPN 411 - Practicum in Teaching Spanish 3(2-1)
- SPN 421 - Foreign Language in Elementary Schools 1(1-0)
- SPN 422 - Practicum: Elementary Field Experience 1(Spec)

Other Requirements II (0-4 hours)

Required Courses only if student desires to add K-12 Certification to the B.S. in Ed. degree, Provisional Elementary Certification

- EDU 310 - Psychological Foundations of Education 3(3-0)
- SPN 412 - Practicum: Secondary Field Experience 1(Spec)

Total: 34-38 semester hours

Additional requirements for K-12 certification on B.S. in Ed. degree options (4-5 hours):

Total: 39-42 semester hours

Spanish Major

B.A.; B.S. degrees

At least 30 hours of SPN courses at the 300 level or above.

Admission Requirements, Retention & Termination Standards

See information at the beginning of the Spanish section.

Core Courses (12 hours)

- SPN 331 - Advanced Grammar and Composition 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 377 - Culture and Civilization of Latin America 3(3-0)

Required Courses I (15 hours)

Select one course from the following, plus 6 SPN credits at the 300 level or above and 6 SPN credits at the 400 level or above.

- SPN 370 - Advanced Studies in Spanish 1-4(Spec)
- SPN 386 - Survey of Spanish Literature (Beginning to 1700) 3(3-0)
- SPN 387 - Survey of Spanish Literature (1700 to Present) 3(3-0)
- SPN 388 - Survey of Spanish-American Literature (Beginnings to Modernism) 3(3-0)
- SPN 389 - Survey of Spanish-American Literature (Modernism to Present) 3(3-0)

Note: SPN 370 may count for the required literature course when the topic deals with literature.

Required Courses II (3-6 hours)

Select one of the following for a minimum of 3 hours:

- SPN 310 - Study Abroad 1-12(Spec)
- SPN 410 - Study Abroad 1-12(Spec)

Note: Students unable to study abroad will be required to take an additional six (6) hours of coursework that is on campus, at the 300 level or above, and approved by an advisor.

Other Requirements (4-9 hours)

Select one of the following two options:

Option 1 - Secondary (4-9 hours)

Other Requirements I (4 hours)

Required Courses for B.S. in Ed. Degree, Provisional Secondary Certification

- SPN 411 - Practicum in Teaching Spanish 3(2-1)
- SPN 412 - Practicum: Secondary Field Experience 1(Spec)

Option 2 - Elementary (5-9 hours)

Other Requirements I (5 hours)

Required Courses for the B.S. in Ed. Degree, Provisional Elementary Certification

- SPN 411 - Practicum in Teaching Spanish 3(2-1)
- SPN 421 - Foreign Language in Elementary Schools 1(1-0)
- SPN 422 - Practicum: Elementary Field Experience 1(Spec)

Other Requirements II (0-4 hours)

Required Courses only if student desires to add K-12 Certification to the B.S. in Ed. degree, Provisional Elementary Certification

- EDU 310 - Psychological Foundations of Education 3(3-0)
- SPN 412 - Practicum: Secondary Field Experience 1(Spec)

Total: 34-38 semester hours

Additional requirements for K-12 certification on B.S. in Ed. degree options (4-5 hours):

Total: 39-42 semester hours

(continued)
Spanish Major: Spanish for Business Concentration
B.A.; B.S. degrees
At least 30 hours of SPN courses at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See information at the beginning of the Spanish section.

Core Courses (12 hours)
- SPN 331 - Advanced Grammar and Composition 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 377 - Culture and Civilization of Latin America 3(3-0)

Required Courses (15 hours)
- SPN 310 - Study Abroad 1-12(Spec)
- SPN 335 - Spanish for Business 3(3-0)
- SPN 410 - Study Abroad 1-12(Spec)

Note: Completion of this concentration requires the student to study abroad for one semester during which the student will enroll for 12 credits (6 hours of SPN 310 and 6 hours of SPN 410). At the 300 level, the student takes courses conducted in Spanish and related to business. At the 400 level, the student participates in an internship.

Electives (3 hours)
Select a three (3) credit course at the 300 level or above.

Total: 30 semester hours

Spanish Minor
B.A.; B.S. degrees, Plan A and B
At least 20 hours of SPN courses at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See information at the beginning of the Spanish section.

Core Courses (12 hours)
- SPN 331 - Advanced Grammar and Composition 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 377 - Culture and Civilization of Latin America 3(3-0)

Required Courses I (6 hours)
Select six (6) additional credit hours at the 300 level or above, chosen in consultation with a Spanish advisor.

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
- SPN 310 - Study Abroad 1-12(Spec)
- SPN 410 - Study Abroad 1-12(Spec)

Note: Students unable to study abroad will be required to take an additional six (6) hours of coursework that is on campus, at the 300 level or above, and approved by an advisor.

Required Courses III (3 hours)
Required Course for B.S. in Ed. Degree
SPN 411 - Practicum in Teaching Spanish 3(2-1)

Total: 21-24 semester hours

Spanish Minor
B.S. in Ed., Provisional Elementary Certification
At least 25 hours including 19 hours at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See information at the beginning of the Spanish section.

Core Courses (15 hours)
- SPN 320 - Spanish Pronunciation 3(3-0)
- SPN 331 - Advanced Grammar and Composition 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 377 - Culture and Civilization of Latin America 3(3-0)

Required Courses I (3 hours)
Three (3) additional credit hours at the 300 level or above, chosen in consultation with a Spanish advisor.

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
- SPN 310 - Study Abroad 1-12(Spec)
- SPN 410 - Study Abroad 1-12(Spec)

Note: Students unable to study abroad will be required to take an additional six (6) hours of coursework that is on campus, at the 300 level or above, and approved by an advisor.

Required Courses III (3 hours)
Required Course for B.S. in Ed. Degree
SPN 411 - Practicum in Teaching Spanish 3(2-1)

Total: 24-27 semester hours

Spanish Minor
B.S. in Ed., Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement
At least 24 hours including 18 hours at the 300 level or above.

Admission Requirements, Retention & Termination Standards
See information at the beginning of the Spanish section.

Core Courses (15 hours)
- SPN 320 - Spanish Pronunciation 3(3-0)
- SPN 331 - Advanced Grammar and Composition 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 377 - Culture and Civilization of Latin America 3(3-0)

Required Courses I (3 hours)
Select three (3) additional credit hours at the 300 level or above, chosen in consultation with a Spanish advisor.

Required Courses II (3-6 hours)
Select one of the following for a minimum of 3 hours:
- SPN 310 - Study Abroad 1-12(Spec)
- SPN 410 - Study Abroad 1-12(Spec)

Note: Students unable to study abroad will be required to take an additional six (6) hours of coursework that is on campus, at the 300 level or above, and approved by an advisor.

Required Courses III (3 hours)
Required Course for B.S. in Ed. Degree
SPN 411 - Practicum in Teaching Spanish 3(2-1)

Total: 24-27 semester hours
History (HST, STR)

For information, please contact the chairperson, 774-3374, Powers Hall 106

Why Study History?

The study of history is an important part of a university education and an excellent preparation for a wide range of careers. History courses provide an understanding of the political, cultural, social, and economic life of past civilizations and help us understand the world in which we live. A history major or minor provides a broad education that informs and shapes the thinking of the entire person. A history minor, in particular, is an excellent balance to specialized vocational and pre-professional studies. Thus, the career opportunities for history graduates in teaching, the professions and public service, industry and commerce are exceedingly wide and varied. A history major or minor provides direct preparation for graduate study leading to an M.A. or Ph.D. degree and to careers in areas such as teaching, research, museum, library, or archival work. Historical knowledge and the skills in reading, writing, and analysis developed through historical study are excellent preparation for law school and for government employment. Particularly in conjunction with coursework in business, economics, sociology, political science, and mathematics, such knowledge and skills are also excellent undergraduate preparation for graduate work in business administration or journalism.

History at CMU

The Department of History offers a variety of courses in the University Program that introduce students to the multifaceted discipline of history as well as to American, African, European, Asian, Middle Eastern and Latin American civilizations. Courses on both the 100 and 200 levels are designed for freshmen and sophomores or for students wishing a broad overview of a particular country or civilization. The major or minor in history can be taken on a variety of teaching and nonteaching degrees. The department participates in an interdisciplinary major in the social sciences and in minors in American ethnic studies, bilingual bicultural education, Ojibwe, humanities, Latin American studies, military science, Native American studies, and women's studies. Additionally, the department offers a Master of Arts and Joint Master of Arts and Ph. D. degrees in history.

The Faculty

Thomas L. Benjamin, Kathleen Donohue, Randall Doyle, Carrie Euler, Michael Federspiel, Solomon Addis Getahun, Jennifer Green, Mitchell K. Hall, Timothy Hall, Doina Harsanyi, Eric A. Johnson, David I. Macleod, William McDaid, Timothy O'Neill, William Prenter, Benjamin Ramirez-Shkwegnaabi, John F. Robertson, David Rutherford, Stephen P. Scherer, James A. Schmiechen, Gregory Smith, Catherine Tobin

Admission Requirements, Retention & Termination Standards

1. Students planning or considering a major or minor in history are urged to consult with an advisor as early as possible in their college careers. Students may select any history faculty member to serve as advisor.

2. Up to six hours of Credit/No Credit in history courses will be accepted in the major or minor, but these hours may not be in 400 level or 500 level courses.

3. Survey or introductory courses (when transferred from another college or university) are accepted for no more than three hours per course on the major or minor.

4. History majors, particularly those planning to do graduate work in history, are strongly urged to include two years of foreign language study in their undergraduate programs.

5. History majors and minors planning to do graduate work in history are strongly urged to take both the general aptitude and advanced history tests of the Graduate Record Examination early in their senior year. These examinations are generally required for admission to graduate schools.

6. Credit Limitation. Courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit include HST 532, 590, 595, 597, 601, 690, and 791.

7. The history department does not accept the CLEP examination for credit toward a major or minor.

8. Up to six hours of credit for AP examinations will be approved as follows: three credits for a score of four for History (American) in HST 111 or History (European) in HST 102; or six credits for a score of five for History (American) in HST 111 and HST 112 or History (European) in HST 101 and HST 102.

9. The history department strongly urges all history majors and minors, particularly those planning to teach history or to go on to graduate study, to participate in the CMU Semester Abroad program. Interested students should see a department study abroad advisor or the International Education office as early as possible.

Integrated B.A./M.A.

Admission Standards:

1. Written recommendation of a CMU history professor.

2. Six (6) hours of history coursework completed with at least a 3.25 GPA in those courses and a 3.25 overall GPA or permission of advisor.

Retention Standards:

1. Maintenance of a 3.5 GPA in history courses.

2. Failure to maintain satisfactory work (3.0 GPA) in two successive semesters will result in removal from the integrated program.
**History Major**

*Non-Teaching: B.A., B.S. degrees*

**Admission Requirements, Retention & Termination Standards**

See information at the beginning of this section.

**Required Courses I (3 hours)**

HST 301 - The Craft of History 3(3-0)

**Required Courses II (3 hours)**

HST 496 - Research Seminar 3(3-0)

One seminar or a substitute approved by an advisor

**Required Courses III (3 hours)**

*U.S. History*

Select one of the following:

HST 110 - The American Experience 3(3-0)
HST 111 - United States to 1865 3(3-0)
HST 112 - United States 1865 to the Present 3(3-0)
HST 221 - Growing Up in America 3(3-0)
HST 226 - American Business: A History 3(3-0)
HST 312 - American Military Experience 3(3-0)
HST 315 - The Vietnam War 3(3-0)
HST 316 - Race, Class and Power: South Africa in the 20th Century 3(3-0)
HST 362 - Latin American Revolutions: Mexico, Cuba and Central America 3(3-0)
HST 369 - Traditional China 3(3-0)
HST 370 - Modern China 3(3-0)
HST 376 - East/Central Africa: Issues 3(3-0)
HST 377 - West Africa 3(3-0)
HST 378 - South Africa 3(3-0)
HST 379 - Race, Class and Power: South Africa in the 20th Century 3(3-0)
HST 382 - History of Israel 3(3-0)

**Note:** HST 236, 237, and 369 may fill requirements for either Required Courses V or Required Courses VI, but cannot fill requirements for both categories.

**Required Courses VI (3 hours)**

*Pre-Modern History*

Select one of the following:

HST 101 - The Development of Western Civilization 3(3-0)
HST 200 - The Medieval Civilization 3(3-0)
HST 226 - The Near East to Alexander 3(3-0)
HST 237 - The Middle East since Muhammad 3(3-0)
HST 238 - Ancient Greece and Rome 3(3-0)
HST 340 - The High Middle Ages 3(3-0)
HST 341 - Renaissance and Reformation 3(3-0)
HST 348 - Russia through the Reign of Catherine the Great 3(3-0)
HST 350 - England to 1688 3(3-0)
HST 359 - Traditional China 3(3-0)
HST 505 - Tudor England 3(3-0)
HST 537 - The Age of Cicero 3(3-0)
HST 538 - Athens: Classical Period 3(3-0)
HST 539 - Russia in the Nineteenth and Twentieth Centuries 3(3-0)
HST 513 - Era of the Early Republic, 1789-1825 3(3-0)
HST 514 - The Jacksonian Era 3(3-0)
HST 515 - Civil War and Reconstruction 3(3-0)
HST 516 - Emergence of Modern America, 1877-1920 3(3-0)
HST 517 - U.S. Rise in World Leadership, 1917-1945 3(3-0)
HST 518 - African-Americans and the Legal Process 3(3-0)
HST 523 - American Diplomatic History, 1775-1898 3(3-0)
HST 524 - American Diplomatic History since 1898 3(3-0)
HST 525 - The Industrialization of America 3(3-0)
HST 532 - Michigan History Studies 1-3(Spec)
HST 562 - The Atlantic World in the Age of Empire 3(3-0)

**Required Courses IV (3 hours)**

*Modern European History*

Select one of the following:

HST 102 - The Development of Western Civilization 3(3-0)
HST 106 - Twentieth Century: Western World Issues 3(3-0)
HST 280 - Nazi Germany and the Holocaust 3(3-0)
HST 344 - Modern Europe, 1815-1918 3(3-0)
HST 347 - The French Revolution and Napoleonic Period 3(3-0)
HST 349 - Russia in the Nineteenth and Twentieth Centuries 3(3-0)
HST 351 - Britain since 1689 3(3-0)
HST 353 - Germany since 1870 3(3-0)
HST 354 - Women in European History 3(3-0)
HST 356 - Europe Since 1945 3(3-0)
HST 542 - The Enlightenment in Europe 3(3-0)
HST 548 - Russian Thought 3(3-0)
HST 558 - Europe, 1914-1945 3(3-0)

**Required Courses V (3 hours)**

*Non-Western History*

Select one of the following:

HST 163 - The Latin American Experience 3(3-0)
HST 168 - The Far East 3(3-0)
HST 176 - The African Experience 3(3-0)
HST 236 - The Near East to Alexander 3(3-0)
HST 237 - The Middle East since Muhammad 3(3-0)
HST 292 - Global Perspectives on Non-Western History 3(3-0)
HST 362 - Latin American Revolutions: Mexico, Cuba and Central America 3(3-0)
HST 369 - Traditional China 3(3-0)
HST 370 - Modern China 3(3-0)
HST 376 - East/Central Africa: Issues 3(3-0)
HST 377 - West Africa 3(3-0)
HST 378 - South Africa 3(3-0)
HST 379 - Race, Class and Power: South Africa in the 20th Century 3(3-0)
HST 382 - History of Israel 3(3-0)

**Required Courses VII (6 hours)**

Six additional hours of history courses numbered 100-599.

**Electives I (6 hours)**

Two additional courses at 300-500 level

**Electives II (3 hours)**

One additional course at 500 level - HST 590 cannot be used for this requirement

**Total:** 33 semester hours

**Integrated B.A./M.A.**

The Integrated B.A./M.A. degree allows highly motivated students to accelerate their academic careers by undertaking graduate work toward the traditional Master of Arts degree (not Joint M.A. in History) concurrently with undergraduate work. This is not for students seeking teaching certification as a part of their undergraduate degree work.

**Degree Requirements**

The degree requirements for the Integrated B.A./M.A. combine the non-teaching major and the traditional M.A. as follows:
1. The student must meet with an advisor in the History Department and submit an integrated B.A./M.A. Program Plan to the History Department by the beginning of the second semester of his or her second year of study for the B.A. 

2. HST 496 (or approved substitute) must be taken in the junior (third) year.

3. In the student’s junior undergraduate year, he or she must apply to the CMU College of Graduate Studies for concurrent admission in the senior year and be admitted to concurrent graduate status.

4. Three to twelve (3-12) hours of M.A. graduate credit, including one graduate seminar or colloquium, must be taken in the final year of the undergraduate work.

5. The integrated plan is intended to encourage research and writing competency in a particular research field; therefore, the candidate is encouraged to elect Plan A, the Thesis Option of the M.A. program.

6. It is highly recommended that the student undertake a one-semester study abroad in history, preferably in the third year of the B.A. work. This can be arranged through the department.

History Major
B.S. in Education Degree, Provisional Elementary Certification

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

Students must also earn credit in EDU 343 (Social Studies Methods in Elementary Education). See additional information for students seeking department’s recommendation for student teaching.

For majors who wish to teach on the elementary level:

1. A major must have completed at least 30 hours of his or her History major. The student must have a minimum grade point average of 2.70 in those 30 hours of history courses. Transfer credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a grade point average of 2.70. At least 12 of the required hours must have been received within 10 years of application for student teaching.

2. Both majors and minors must complete a department student teaching evaluation form. In addition, students must furnish transcripts showing all history course credits.

Required Courses I (6 hours)
HST 301 - The Craft of History 3(3-0)
HST 496 - Research Seminar 3(3-0)

Note: Another seminar may be substituted for HST 496, but must be approved by advisor.

Required Courses II (3 hours)
Choose one course at the 500 level as approved by advisor. HST 590 cannot be used for this requirement. The following courses are especially recommended:
HST 511 - Colonial British America 3(3-0)
HST 512 - Era of the American Revolution 3(3-0)
HST 513 - Era of the Early Republic, 1789-1825 3(3-0)
HST 562 - The Atlantic World in the Age of Empire 3(3-0)

Required Courses III (6 hours)
Choose two courses at the 300-500 level (must include one of the following courses):
HST 320 - United States Social History to 1865 3(3-0)
HST 321 - United States Social History since 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)

Required Courses IV (6 hours)
U.S. History
HST 111 - United States to 1865 3(3-0)
HST 112 - United States 1865 to the Present 3(3-0)

Required Courses V (9 hours)
Global History
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)
HST 292 - Global Perspectives on Non-Western History 3(3-0)

Required Courses VI (3 hours)
Global History
Select one of the following:
HST 163 - The Latin American Experience 3(3-0)
HST 168 - The Far East 3(3-0)
HST 176 - The African Experience 3(3-0)
HST 237 - The Middle East since Muhammad 3(3-0)
HST 369 - Traditional China 3(3-0)
HST 370 - Modern China 3(3-0)
HST 376 - East/Central Africa: Issues 3(3-0)
HST 377 - West Africa 3(3-0)
HST 378 - South Africa 3(3-0)
HST 379/HUM 340 - Race, Class and Power: South Africa in the 20th Century 3(3-0)

Total: 33 semester hours

Students planning to teach in Michigan are strongly encouraged to take HST 333. The history major is especially recommended for those students intending to teach in grades six and above. Students who wish further preparation for departmentalized teaching would benefit from HST 400.

History Major
B.S. in Education Degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

For majors who wish to teach on the secondary level:

1. A student must have completed at least 30 hours of his or her History major, including HST 300 and HST 400. Majors must also complete HST 300 unless they have completed a mid-tier course for a second major in a program in the humanities or social sciences. To be exempt from HST 300, a student must have advisor approval. The student must have a minimum grade point average of 2.70 in those 30 hours of history courses. Transfer credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a grade point average of 2.70. At least 12 of the required credit hours must have been received within 10 years of application for student teaching.

2. Both majors and minors must complete a department student teaching evaluation form. In addition, students must furnish transcripts showing all history course credits.

Required Courses I (6 hours)
HST 301 - The Craft of History 3(3-0)
HST 496 - Research Seminar 3(3-0)

Note: Another seminar may be substituted for HST 496, but must be approved by advisor.

Required Courses II (3 hours)
Choose one course at the 500 level as approved by advisor. HST 590 cannot be used for this requirement. The following courses are especially recommended:
HST 511 - Colonial British America 3(3-0)
HST 512 - Era of the American Revolution 3(3-0)
HST 513 - Era of the Early Republic, 1789-1825 3(3-0)
HST 562 - The Atlantic World in the Age of Empire 3(3-0)

Required Courses III (6 hours)
Choose two courses at the 300-500 level (must include one of the following courses):
HST 320 - United States Social History to 1865 3(3-0)
HST 321 - United States Social History since 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)
Required Courses I (6 hours)
HST 301 - The Craft of History 3(3-0)
HST 496 - Research Seminar 3(3-0)

Note: Another seminar may be substituted for HST 496, but must be approved by advisor.

Required Courses II (3 hours)
Choose one course at the 500 level as approved by advisor. HST 590 cannot be used for this requirement. The following course is especially recommended:
HST 558 - Europe, 1914-1945 3(3-0)

Required Courses III (6 hours)
Choose two courses at the 300-500 level (must include one additional U.S. HST course from the following courses):
HST 320 - United States Social History to 1865 3(3-0)
HST 321 - United States Social History since 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)

Required Courses IV (6 hours)
U.S. History
HST 111 - United States to 1865 3(3-0)
HST 112 - United States 1865 to the Present 3(3-0)

Required Courses V (3 hours)
Select one of the following:
HST 221/WST 221 - Growing Up in America 3(3-0)
HST 320 - United States Social History to 1865 3(3-0)
HST 321 - United States Social History since 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)

Required Courses VI (3 hours)
One 500 level course - HST 590 does not meet this requirement

Electives (3 hours)
Choose 3 hours of history courses numbered 100-599.

Total: 36-38 semester hours

History Minor
Non-Teaching: B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

Required Courses (9 hours)
9 hours at the 300 level or above

Electives (11-12 hours)
11 or more additional hours in history

Total: 21 semester hours

History Minor
B.S. in Education Degree, Provisional Elementary Certification or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

For minors who wish to teach on the elementary level:
1. A minor must have completed at least 20 hours of his or her History minor. The student must have a minimum grade point average of 2.70 in those 20 hours of history courses. Transfer credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a grade point average of 2.70. At least 12 of the required hours must have been received within 10 years of application for student teaching.
2. Both majors and minors must complete a department student teaching evaluation form. In addition, students must furnish transcripts showing all history course credits. Students must also earn credit in EDU 343 (Social Studies Methods in Elementary Education). See additional information for students seeking department’s recommendation for student teaching.

Required Courses I (6 hours)
U.S. History
HST 111 - United States to 1865 3(3-0)
HST 112 - United States 1865 to the Present 3(3-0)

Required Courses II (9 hours)
Global History
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)
HST 292 - Global Perspectives on Non-Western History 3(3-0)

Required Courses III (3 hours)
Methods
HST 300 - A Mid-tier Experience for History Majors: Teaching History in Secondary 2(1-2)
HST 400 - History for Secondary Schools 3(3-0)

Note: Students may be exempt from HST 300 if they have completed a mid-tier experience for a second major in a program in the humanities or social sciences. To be exempt from HST 300, students must have advisor approval.

Electives (3 hours)
Choose 3 hours of history courses numbered 100-599.

Total: 24 semester hours

History Minor
B.S. in Education Degree, Provisional Elementary Certification or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

Required Courses I (6 hours)
U.S. History
HST 111 - United States to 1865 3(3-0)
HST 112 - United States 1865 to the Present 3(3-0)

Required Courses II (9 hours)
Global History
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)
HST 292 - Global Perspectives on Non-Western History 3(3-0)

Required Courses III (3 hours)
Select one of the following:
HST 221/WST 221 - Growing Up in America 3(3-0)
HST 320 - United States Social History to 1865 3(3-0)
HST 321 - United States Social History since 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)

Required Courses IV (3 hours)
One 500 level course - HST 590 does not meet this requirement

Electives (3 hours)
Three additional hours at the 300-599 level. (HST 333 is recommended for students expecting to teach in Michigan)

Total: 24 semester hours
History Minor
B.S. in Education Degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
See information at the beginning of this section.

For minors who wish to teach on the secondary level:
1. A student must have completed at least 20 hours of his or her History minor, including HST 400. The student must have a minimum grade point average of 2.70 in those 20 hours of history courses. Transfer credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a grade point average of 2.70. At least 12 of the required credit hours must have been received within 10 years of application for student teaching.

2. Both majors and minors must complete a department student teaching evaluation form. In addition, students must furnish transcripts showing all history course credits.

3. Students are urged to take HST 400 the semester before student teaching. Students are also urged to have taken as preparation for HST 400 at least five hours of secondary education coursework, including a course in psychological foundations of education.

4. The department recommends that students planning to teach history in secondary schools major in history.

5. The North Central Association requires social studies teachers to have completed 24 hours in coursework appropriate to their teaching assignments.

Required Courses I (6 hours)
U.S. History
Select one of the following options:

Option A
You must take HST 111 and choose one other of the following:
HST 111 - United States to 1865 3(3-0)
HST 321 - United States Social History since 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)

Option B
You must take HST 112 and choose one other of the following:
HST 112 - United States 1865 to the Present 3(3-0)
HST 320 - United States Social History to 1865 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)

Required Courses II (9 hours)
Global History
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)
HST 292 - Global Perspectives on Non-Western History 3(3-0)

Required Courses III (6 hours)
Historiography and Methods
HST 301 - The Craft of History 3(3-0)
HST 400 - History for Secondary Schools 3(3-0)

Electives (3 hours)
Select one additional history course at the 300-599 level.

Total: 24 semester hours
**Military Science and Leadership (MSL)**
For information, please contact the chairperson, 774-3049, Finch 111

**Why Study Military Science and Leadership?**
The Department of Military Science is home to “America’s best leadership development program” – Army Reserve Officer’s Training Corps (ROTC). Our curriculum and faculty are completely focused on the students and their development as world-class leaders. Through completing our curriculum, students qualify to become Army Officers and lead in one of America’s most respected professions.

- Military Science academic programs are open to all students, without any obligation for military service.
- The program helps students to acquire leadership and management skills that make them a sought after commodity in the civilian job market.
- The department has integrated its efforts with the CMU Leadership Institute, contributing to the CMU Board of Trustees’ goal to make CMU the “premier center for leadership development in the Mid-American Conference, and among the best in the nation.”
- Emphasis is placed on strengthening values and ethical leadership. Students develop their mental, physical and emotional capabilities. They also develop their conceptual and interpersonal skills. Finally, they learn how to communicate effectively; make good decisions; motivate others; plan, execute and assess operations; develop and build teams; and improve themselves and the organizations they lead.
- It is the most comprehensive leadership development program in the nation.

**Military Science at CMU**
The Military Science/ROTC program is one of the best leadership development programs in the nation, committed to attaining a national ranking. The focus of the program is leadership development, the curriculum supports all degree programs at CMU. All organizations, in all career fields, are looking for proven leaders.

- Our curriculum is fun, challenging, exciting and relevant. Classroom instruction moves quickly from lecture to group discussions, practical exercises, and hands-on experiences that support learning.
- All classes include student-led Leadership Labs, which are hands-on and consist of training such as: rappelling, rock-climbing, high-ropes course, marksmanship, water survival, orienteering, map reading, first aid, weapons, drill, squad tactics, patrolling, and team-building exercises.
- Upper level courses include a leadership practicum where students apply the leadership lessons they learned in the classroom to real life, by filling leadership positions within the Corps of Cadets.
- The Military Science program offers leadership internships both in-state and around the world; basic and advanced leadership camps; leadership development training at the United States Military Academy and in the United Kingdom; leadership training at the Army’s most challenging schools, such as Airborne, Air Assault, SCUBA, Northern Warfare, and Mountain Warfare.

The majority of the program’s activities are planned, organized, prepared, executed and assessed by student leaders of the Corps of Cadets. The leadership potential of a student is developed through formal leadership assessments and feedback, mentorship, and whole-student counseling.

**The Faculty**
Aaron Kalloch, Rodney Williams, Joe Poster, Clifford Ellis

**Career Options**
Your experience in the Military Science program provides you with the skills that Fortune 500 companies aggressively seek – proven leadership. Besides your unmatched development as a leader, if you also choose to become an officer, you will expand your breadth and depth of acquired skills, opening up myriad opportunities for future employment.

- Junior military officers are scouted by employment head-hunters. Officers have priority for hiring for government jobs, and many organizations and universities give preference to military officers.
- Nationwide, graduates of ROTC fill high positions in all branches of government (administrative, judicial and legislative), businesses, non-profit organizations, universities, and professional sports.
- The CMU program has produced numerous presidents/CEOs, vice-presidents of Dow Chemical and Merrill Lynch, justices, professors, general officers, and leaders in national security organizations.
- The Army has 16 exciting and high tech career fields to choose from that directly relate to the civilian sector, some of which are aviation, medical service, engineering, intelligence, security, law enforcement, information technology, human resources, finance and distribution management.
- The program supports lateral entry into America’s most elite organizations, like the State Department, Federal Bureau of Investigation (FBI), Central Intelligence Agency (CIA) and the Secret Service.
- Students who choose to serve as officers in the active Army can rejoin the civilian sector after four years of service. Students who choose to serve in the National Guard or Reserves have the ability to work anywhere they want, in whatever civilian profession they chose, or to pursue a graduate degree.
Academic Programs

Military Science instructors are committed to excellence in teaching and learning. The department has been recognized as one of the top programs at CMU in the area of assessment. Students receive credits for each Military Science course. The Military Science department offers two programs:

- The Commissioning Program courses are taken along with your academic degree program courses. Students who desire to become army officers receive their commission upon completing both their degree requirements and the military science curriculum. The military science curriculum consists of one class and weekly Leadership Lab each semester for eight semesters in progressive order. Latecomers and graduate students may make up the first four semesters of the curriculum by attending the month-long Leadership Training Camp during the summer, or in a variety of other ways. All students seeking commissions as officers attend the month-long Leader Development and Assessment Course (LDAC), which is normally completed during the summer prior to a student's last year of school.

- The Minor in Military Science is designed to provide an interdisciplinary education in military science and leadership. The foundations for this minor are the advanced military science courses and a course in military history. This foundation is supplemented by elective studies in cultures, politics, geography, constitutional history and law, public relations, international relations, foreign policy and religion.

Army ROTC Scholarships

Student scholarships and other financial aid packages range from $10,500 to $16,600 dollars per year. These financial benefits will allow you to focus on excellence in the classroom, as well as engage in extracurricular activities that are an important part of your overall college experience.

- Incoming freshmen may compete for four-year scholarships worth $10,200 per year, which provide tuition, fees, book allowance and monthly spending money, by applying on-line at armyrotc.com, and then following up with an on-campus interview. Four-year scholarship students may also receive a matching room and board scholarship from CMU worth an additional $6,100 per year (see below).

- Students already on campus may compete for two-, three-, and four-year scholarships worth $10,200 per year, which provide tuition, fees, book allowance and monthly spending money, by applying at our office in Finch 111.

- Students may simultaneously enroll in both our program, and the Army National Guard or Army Reserves. There are substantial benefits to participating in this program, including Leadership Internships, obtaining training in one of 212 marketable job skills, the most lucrative financial aid packages worth $17,800 per year, and guaranteed duty in the Reserves.

- Students may also compete for non-Army scholarships worth $1,000–$2000 each, made available through supporters of CMU’s Army ROTC program.

- There are numerous other national-level scholarships made available through corporations and endowments available exclusively to participants of Army ROTC programs. Additional ROTC scholarship information may be obtained by contacting personnel of the Military Science Department at 774–7440/3049.

Reserve Officers’ Training Corps (ROTC) Scholarship

Established in 1993 by CMU to provide six room and board awards on an annual basis to high school seniors winning three-year Advance Designee or four-year ROTC Scholarships.

Military Science Minor

B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

The Military Science Minor is designed to provide students with an interdisciplinary approach to the study of the United States Military. Coursework includes a foundation in Military Science and Military History with electives concentrating on constitutional, international, and other issues. The Minor is open to all students; there is no military obligation.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

1. A minor in Military Science is available. Students must meet with a Military Science departmental advisor. Students must earn an overall cumulative GPA of 2.0 in Military Science courses in order to receive credit for the minor.

2. Students who are pursuing a commission as an Army Officer must earn an undergraduate degree and meet all of the requirements for their signed academic major and minor if a minor is required. Upon signing an Army ROTC Contract to commission, students must continue to meet all of the requirements of that Army ROTC contract in order to be retained in the commissioning program.

3. These requirements include meeting Army physical fitness standards, demonstrating good character, meeting the military science program's academic standards, and attaining the undergraduate degree prior to being commissioned.

Required Courses I (16 hours)

- MSL 301 - Leadership and Problem Solving 4(3-2)
- MSL 302 - Leadership and Ethics 4(3-2)
- MSL 401 - Leadership and Management 4(3-2)
- MSL 402 - Officership 4(3-2)

Required Courses II (3 hours)

Select one of the following:

- HST 312 - American Military Experience 3(3-0)
- HST 315 - The Vietnam War 3(3-0)
- HST 515 - Civil War and Reconstruction 3(3-0)

Electives (9 hours)

Select from the following courses in consultation with minor advisor. Other electives may be substituted with advisor’s approval.

- GEO 121 - Cultures of the World 3(3-0)
- GEO 345 - Political Geography 3(3-0)
- GEO 346 - Geography of the Developing World 3(3-0)
- HST 330 - U.S. Constitutional History 3(3-0)
- JRN 350 - Public Relations Principles and Practices 3(3-0)
- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 151 - The U.S. and the World 3(3-0)
- PSC 351 - International Relations 3(3-0)
- PSC 421 - Constitutional Law: Powers of Government 3(3-0)
- PSC 453 - American Foreign Policy 3(3-0)
- REL 101 - World Religions: An Introduction to the Study of Religion 3(3-0)
- REL 130 - Religion in America 3(3-0)

Total: 28 semester hours
Philosophy and Religion (PHL, REL)
For information, please contact the chairperson, 774-3444, 102 Anspach Hall

Philosophy & Religion
Philosophy and Religion are complementary disciplines which study human thought and culture from distinct points of view. Both disciplines study ethical and cultural issues and form part of the core of a liberal education. Each not only provides training for graduate study in its respective discipline, but provides an excellent basis for further professional training in fields which require critical and interpretive skills.

Why Study Philosophy?
Philosophy is the study of fundamental questions about the nature of reality, knowledge, and value. These are questions that everyone asks: What am I? Do I have free will? How can we distinguish good from bad or right from wrong? Can we be sure that any of our beliefs are true? Philosophers examine answers to these questions systematically and critically. Philosophy is also very effective in developing the student’s ability to reason clearly, to distinguish good from bad arguments, to navigate through a complicated maze of questions, and to use intelligence and logic in situations often ruled by emotions. Students who have taken a large number of philosophy courses excel in entrance exams to graduate and professional schools. The thinking skills you will develop in your philosophy classes will give you the kind of analytic ability sought by employers in many professions.

Why Study Religion?
The academic study of religion is a comparative exploration of the beliefs, sacred stories, rituals, and community structures of the world’s religions. It helps students analyze the relationships between religion and social issues. Students of religion also investigate the influence of religion in their own and other cultures and gain understanding of how people around the world confront ultimate problems (such as death and evil). Studying religion is a way to gain research skills, writing skills, and critical thinking skills that will serve you throughout your life in a wide variety of careers or in graduate school. A survey of CMU alumni with majors and minors in Religion revealed that 75% had pursued graduate education, and that half of these had earned one or more graduate degrees.

Philosophy at CMU
The Philosophy area offers a variety of courses that both make students aware of fundamental philosophical issues such as those about moral and other values, but at the same time strengthen their critical powers and enable them to evaluate better their own beliefs as well as those of other people. Some coursework in this area can benefit students no matter what their field of study.

A major in philosophy is recommended, not only for graduate work in this area, but also as an excellent preparation for law school. A minor in philosophy is recommended to complement many other majors. A number of philosophy courses are related to specific disciplines including: Philosophy of Science, Philosophy of Language, Philosophy of Art, Political Philosophy, Philosophy of Mind, Philosophy of Religion, Philosophy of Literature, Business Ethics, and Ethics in Health Professions. Courses in the history of philosophy provide a valuable supplement to courses in the History Department.

Religion at CMU
CMU’s Religion courses are recommended for those seeking deeper insight into the culture of the United States and a wider familiarity with cultures around the world. The Religion area offers courses in Buddhism, Judaism, Christianity, and Islam; in the religious traditions of China, Japan, India, and the U.S.; and in biblical studies, ethics, and the relationship between religion and contemporary society. Most Religion courses fulfill a UP requirement.

A major in religion is recommended for any student seeking an area of concentration within the liberal arts, including those wishing to pursue graduate study in religion, theology, or a related field. A minor (or second major) in religion helps prepare students for careers in journalism, broadcasting, psychology, and other areas.

The Faculty
Brian Coleman, Darci Doll, Heather Fieldhouse, Gary Fuller, Roger D. Hatch, H. Talat Halman, Shin Kim, Donald Matthews, Hope May, John B. Meixner, Merlyn E. Mowrey, Robert Noggle, Guy Newland, Kenneth Parsons, William W. Reader, Mark Shelton, David L. Smith, Joshua Smith, Gregory Spinner, Robert Stecker, Todd Tremlin, John Wright
Majors

Philosophy Major
B.A.; B.S. degrees

Required Courses (21 hours)
PHL 100 - Introduction to Philosophy 3(3-0)
PHL 140 - Introduction to Logic 3(3-0)
PHL 200 - History of Philosophy: Classical Period 3(3-0)
PHL 218 - Ethical Theory 3(3-0)
PHL 302 - History of Philosophy: Modern Period 3(3-0)
PHL 320 - Theory of Knowledge 3(3-0)
PHL 490 - Senior Seminar 3(3-0)

Electives (12 hours)
At least six hours must be chosen from the following:
PHL 225 - Foundations of Cognitive Science 3(3-0)
PHL 325 - Philosophy of Mind 3(3-0)
PHL 340 - Intermediate Logic 3(3-0)
PHL 390 - Philosophy of Science 3(3-0)
PHL 405 - Major Philosophers 3(3-0)
PHL 410 - Philosophy of Law 3(3-0)
PHL 418 - Advanced Moral Philosophy 3(3-0)
PHL 422 - Political and Social Philosophy 3(3-0)
PHL 426 - Feminist Theory 3(3-0)
PHL 480 - Philosophy of the Arts 3(3-0)

Other electives are to be chosen in consultation with a departmental advisor. Philosophy majors planning to go to graduate school in philosophy are encouraged to take PHL 340.

Total: 33 semester hours
Philosophy courses taken on a Credit/No Credit basis may not be applied toward a philosophy major.

Religion Major
B.A.; B.S. degrees

Required Courses I (3 hours)
One course in the study of religion and contemporary society to be chosen from:
REL 140 - Religion, Race and Discrimination in America 3(3-0)
REL 207 - Women in Religion 3(3-0)
REL 235 - Religion and Social Issues 3(3-0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)

Required Courses II (3 hours)
Select one from the following:
REL 220 - Religious Traditions of China 3(3-0)
REL 221 - Religious Traditions of Japan 3(3-0)
REL 222 - Religious Traditions of India 3(3-0)

Required Courses III (3 hours)
Select one from the following:
REL 314 - Islam 3(3-0)
REL 315 - Judaism 3(3-0)
REL 320 - The Buddhist Tradition 3(3-0)

Required Courses IV (3 hours)
One course on the Bible or Christianity, to be chosen from:
REL 250 - The Old Testament and Its Age 3(3-0)
REL 260 - The New Testament and Its Age 3(3-0)
REL 313 - Christianity 3(3-0)

Required Courses V (6 hours)
REL 501 - Seminar in the Study of Religion 3(3-0)
REL 505 - Research Seminar 3(3-0)

Electives (12-14 hours)
Electives chosen in consultation with an advisor. Up to 9 of these elective hours may be counted from these cognate courses: PHL 230, HST 237, HST 341, ENG 365, ANT 459. Students may petition to have other courses counted, as long as the 9-hour limit is not exceeded.

Total: 30 semester hours
Religion courses taken on a credit/no credit basis at the 100 and 200 levels may be counted on the major up to a maximum of three hours.

Minors

Philosophy Minor
B.A.; B.A.A.; B.A.; B.S.; B.S. in B.A. degrees

Required Courses (20 hours)
A minor in philosophy consists of 20 credit hours in philosophy. The program will be designed to fit the individual needs or interests of the student. Students are encouraged to consult a departmental advisor.

Philosophy courses taken on a Credit/No Credit basis may be applied toward a philosophy minor.

Total: 20 semester hours

Ethics, Values, and Society Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Core Courses I (9 hours)
PHL 118 - Moral Problems 3(3-0)
PHL 218 - Ethical Theory 3(3-0)
REL 235 - Religion and Social Issues 3(3-0)

Required Courses I (3 hours)
Advanced Value Theory
Select from the following:
PHL 410 - Philosophy of Law 3(3-0)
PHL 418 - Advanced Moral Philosophy 3(3-0)
PHL 422 - Political and Social Philosophy 3(3-0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)

Required Courses II (3 hours)
Applied Value Theory
Select from the following:
PML 118 - Moral Problems 3(3-0)
PHL 480 - Philosophy of the Arts 3(3-0)
PML 518 - Professional Ethics 3(3-0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)

Electives (9 hours)
Select three courses taken from at least two of the following categories. At least one course must be from a designator other than PHL or REL. (PHL 318 and PHL 422 may not be counted as electives if they were taken as required courses.)

Category I
Gender and Equality
HST 326/WST 328 - Women in America 3(3-0)
PHL 426/PSC 426/WST 426 - Feminist Theory 3(3-0)
PSC 326/WST 326 - Women and Politics 3(3-0)
PSY 334/WST 334 - Psychology of Women 3(3-0)
REL 207/WST 207 - Women in Religion 3(3-0)
SOC 317/WST 317 - Sociology of Sex and Gender 3(3-0)

(continued)
Category II
Race, Ethnicity, and Justice
ANT 365 - Current American Indian Issues 3(3-0)
ANT 368 - Hispanic Cultures in the U.S. 3(3-0)
BLR 222 - The Search for Racial Justice Through Law 3(3-0)
PHL 345/PSC 325/REL 345/SOC 345 - The Civil Rights Movement 3(3-0)
REL 140 - Religion, Race and Discrimination in America 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)

Category III
Values in Politics, Business, and Society
BLR 310 - Alternative Dispute Resolution in Business 3(3-0)
PHL 318 - Business Ethics 3(3-0)
PHL 422 - Political and Social Philosophy 3(3-0)
PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)
PSC 378 - Modern Democratic Theory 3(3-0)
PSC 422 - Constitutional Law: Civil Rights and Liberties 3(3-0)
SOC 221 - Social Problems 3(3-0)
SOC 302 - Social Inequality 3(3-0)

Total: 24 semester hours

Religion Minor

B.A.; B.A.A.; B.S.; B.S. in B.A. degrees
The minor in religion consists of at least 20 hours arranged in consultation with an advisor. Courses selected must take account of the range of (a) content and (b) method involved in the study of religion and must include:

Required Course (3 hours)
REL 501 - Seminar in the Study of Religion 3(3-0)

Electives (17 hours)
At least two additional courses (not including REL 501) numbered 300 or higher.
Up to 6 of the 20 hours necessary for the minor in religion may be counted from these cognate courses: PHL 230, HST 237, HST 341, ENG 365, ANT 459. Students may petition to have other courses counted, as long as the 6-hour limit is not exceeded.

Total: 20 semester hours

Religion courses taken on a credit/no credit basis at the 100 and 200 levels may be counted on the minor up to a maximum of three hours.
Political Science (PSC)
For information, please contact the chairperson, 774-3442, 247 Anspach Hall

Political Science
Political science is a social science concerned with describing and analyzing political institutions and processes. Political scientists study the origins of and preconditions for government, the rise and fall of governments, and the relations among nations of the world. Political scientists are interested in how governments are structured, how they make decisions, and how they manage social conflicts. Political scientists also study the behavior of individuals within political systems, both as individuals and as part of groups and organizations. Finally, political science encompasses normative inquiry into such larger questions as the best form of political order, the optimum relationship between the individual and government and the nature of the public good. Political scientists today study such phenomena as political parties and voting behavior, interest groups, bureaucratic organizations and administrative procedures, national security and international organizations, presidential and gubernatorial politics, legislative behavior, courts and the administration of justice, intergovernmental relations, political socialization, mass movements, revolution, ideologies, political philosophy, community organization and urban politics, and public policies.

Why Study Political Science?
Students studying political science have a wide variety of background, interests, and career goals. A political science major provides students with the opportunity to obtain a broad education in liberal arts and politics as well as training for specific career paths. Students with career goals in law, administrative or executive positions in state, local or federal government, teaching political science at the secondary school and college levels, foreign service, international agencies or private business overseas, the mass media, television, radio, newspaper, internet and polling organizations, would be well served by a political science major or minor. Additionally, a political science education provides students with a variety of skills they may use in all aspects of their lives. Coursework in political science teaches students to think critically, write well and speak with confidence. Students are exposed to a variety of methods of examining information, from textual analysis to the use of statistical software to analyze data. Finally, students studying political science develop a better understanding of the functioning of government in order to better prepare them for democratic citizenship.

Political Science at CMU
Faculty in the Political Science Department at CMU specialize in a wide variety of topics, including but not limited to American national political institutions and processes, American state and local government, public administration, public policy, international relations, comparative politics, and political theory. The courses offered in the department reflect these research interests, allowing students to take courses on a wide variety of topics. The major is structured so that students may take courses in many areas of political science or they may focus their education by selecting a concentration in international relations/comparative politics or public administration. A political science minor is also complementary to large number of other majors at CMU, including management, foreign languages, history, military science, integrative public relations, journalism, philosophy, psychology, sociology, interpersonal and public communications, and recreation, parks and leisure services administration. The department participates in a number of interdisciplinary programs, such as those in public affairs, Latin American studies, women’s studies, environmental studies and European studies. The Department also has a strong internship program, providing students with on-the-job training in real life settings throughout Michigan, at the national level and in international organizations. The department hosts the Griffin Endowed Chair in American Government. The chair holder focuses on stimulating political interest among CMU students as well as preparing future Michigan political leaders. The Griffin Chair, a person with a distinguished record of public service and an extensive background in Michigan politics, teaches courses each year focusing on Michigan state politics and policy and provides students with a behind-the-scenes look at current state politics.

Degrees in Political Science
The Department of Political Science offers B.A. and B.S. degrees in political science. Students may choose the general major or a concentration in International Relations/Comparative Politics or Public Administration. The Political Science minor and Public Administration minor are also offered at the undergraduate level. At the graduate level, the Department offers a Master of Arts degree in Political Science, a Master of Public Administration degree, and courses contributing to several other graduate programs.

The Faculty
Majors

Political Science Major

B.A.; B.S. degrees

A political science major consists of 33 hours, including PSC 100 (3) Introduction to Political Science, PSC 105 (3) Introduction to American Government and Politics, PSC 280 (3) Introduction to Empirical Methods of Political Research. A minimum of 15 hours of course work must be at the 300 level or above, with at least one course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement. Students must choose between the General Political Science Major, the Public Administration Concentration or the International Relations/Comparative Politics Concentration.

The student is required to take a minimum of three hours in four of the following five fields:

1. American National Political Institutions and Processes;
3. International Relations;
4. Comparative Politics;
5. Political Theory.

It is recommended that all political science majors enroll in PSC 280 during their sophomore year.

PSC 398 and PSC 598 are Special Topics courses which may be used to fulfill the area requirements for majors and minors. Permission to do this is based on the substantive content of the course, and requires the consent of the student’s major or minor advisor or the department chair. Any regular faculty member in the department can serve as the student’s advisor on a major or minor.

Internships: The department has established an internship program where students are provided relevant firsthand work experience. The duration of an internship can vary depending on the number of credit hours (1-12) taken. Students majoring in political science with a concentration in public administration, as well as the minors in public administration and public affairs, are allowed to count three internship credit hours toward their major or minor.

Select one of the following Major or Concentrations:

General Political Science Major

Required Courses (9 hours)

PSC 100 - Introduction to Political Science 3(3-0)
PSC 105 - Introduction to American Government and Politics 3(3-0)
PSC 280 - Introduction to Empirical Methods of Political Research 3(3-0)

Other Requirements (12 hours)

One three (3) credit hour course in four of the following five fields:

Field I

American National Political Institutions and Processes

PSC 101 - Political Behavior 3(3-0)
PSC 125 - African-American Politics 3(3-0)
PSC 235 - Politics and Personality 3(3-0)
PSC 320 - The American Legislative Process 3(3-0)
PSC 321 - The American Chief Executive 3(3-0)
PSC 322 - Judicial Process and Politics 3(3-0)
PSC 323 - American Parties and Politics 3(3-0)
PSC 325/PHL345/REL 345/SOC 345 - The Civil Rights Movement 3(3-0)
PSC 326/WST 326 - Women and Politics 3(3-0)
PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
PSC 328 - Campaigns and Elections 3(3-0)

Field II

American State and Local Government, Public Administration and Policy

PSC 210 - Introduction to Public Administration 3(3-0)
PSC 261 - State and Local Government 3(3-0)
PSC 300 - Michigan Politics and Elections 3(3-0)
PSC 301 - Law and Policy in Michigan State Government 3(3-0)
PSC 313 - Budgetary Processes in the United States 3(3-0)
PSC 411 - Public Sector Human Resources and Organization Theory 3(3-0)
PSC 514 - American Public Policy Making 3(3-0)
PSC 516 - Environmental Politics and Policy 3(3-0)
PSC 522 - Regulatory Processes and Administrative Law 3(3-0)
PSC 561 - American State Government and Administration 3(3-0)
PSC 563 - Politics and Policy in Urban Communities 3(3-0)
PSC 565 - Managing Modern Local Government 3(3-0)
PSC 566 - Intergovernmental Relations in the United States 3(3-0)
PSC 585 - Computer Applications for Public Administrators 3(3-0)

Field III

International Relations

PSC 150 - World Politics 3(3-0)
PSC 151 - The U.S. and the World 3(3-0)
PSC 351 - International Relations 3(3-0)
PSC 352 - US - Latin American Relations 3(3-0)
PSC 453 - American Foreign Policy 3(3-0)
PSC 551 - Seminar in International Relations 3(3-0)
PSC 555 - International Law I 3(3-0)

Field IV

Comparative Politics

PSC 242 - Introduction to Comparative Politics 3(3-0)
PSC 340 - African Political Systems and Processes 3(3-0)
PSC 341/EUR 303 - Comparative Politics: Eastern Europe 3(3-0)
PSC 342 - Comparative Immigration Politics 3(3-0)
PSC 343 - Southeast Asian Political Systems and Processes 3(3-0)
PSC 344 - East Asian Political Systems and Processes 3(3-0)
PSC 345 - Middle Eastern Political Systems 3(3-0)
PSC 346 - The Politics of Islam 3(3-0)
PSC 347 - Comparative Politics: Western Europe 3(3-0)
PSC 348 - Latin American Political Systems 3(3-0)
PSC 349 - Panama: Exploring Politics and Society in a Central American Nation 3(3-0)
PSC 515 - Comparative Public Policy 3(3-0)
PSC 540 - Cultural Heritage and Politics of Eastern Europe 3(3-0)

Field V

Political Theory

PSC 275 - Great Political Thinkers 3(3-0)
PSC 371 - American Political Thought 3(3-0)
PSC 372 - American Radical Thought 3(3-0)
PSC 373 - American Individualism 3(3-0)
PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)
PSC 378 - Modern Democratic Theory 3(3-0)
PSC/PHL/WST 426 - Feminist Theory 3(3-0)

Electives (12 hours)

Hours selected from the five fields listed above.

Note: A minimum of 15 hours of course work must be at the 300 level or above, with at least one course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement.

Total: 33 semester hours
### International Relations/Comparative Politics Concentration

#### Required Courses (15 hours)
- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 150 - World Politics 3(3-0)
- PSC 242 - Introduction to Comparative Politics 3(3-0)
- PSC 280 - Introduction to Empirical Methods of Political Research 3(3-0)
- PSC 351 - International Relations 3(3-0)

#### Electives I (6 hours)
Select two of the following American National Political Institutions and Processes courses:
- PSC 320 - The American Legislative Process 3(3-0)
- PSC 321 - The American Chief Executive 3(3-0)
- PSC 323 - American Parties and Politics 3(3-0)
- PSC 325/PHL 345/REL 345/SOC 345 - The Civil Rights Movement 3(3-0)
- PSC 326/WST 326 - Women and Politics 3(3-0)
- PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
- PSC 328 - Campaigns and Elections 3(3-0)
- PSC 421 - Constitutional Law: Powers of Government 3(3-0)
- PSC 422 - Constitutional Law: Civil Rights and Liberties 3(3-0)
- PSC 520 - American National Government and Politics 3(3-0)

#### Electives II (3 hours)
Select one of the following Political Theory courses:
- PSC 275 - Great Political Thinkers 3(3-0)
- PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)

#### Electives III (3-6 hours)
Select from the following International Relations courses:
- PSC 151 - The U.S. and the World 3(3-0)
- PSC 352/PHL 345 - American National Political Institutions and Processes 3(3-0)
- PSC 551 - Seminar in International Relations 3(3-0)
- PSC 555 - International Law I 3(3-0)
- PSC 556 - International Law II 3(3-0)

**Note:** If you select 3 from this group, you must select 6 from the Comparative Politics courses below.

#### Electives IV (3-6 hours)
Select from the following Comparative Politics courses:
- PSC 340 - African Political Systems and Processes 3(3-0)
- PSC 341/EUR 303 - Comparative Politics: Eastern Europe 3(3-0)
- PSC 342 - Comparative Immigration Politics 3(3-0)
- PSC 343 - Southeast Asian Political Systems and Processes 3(3-0)
- PSC 344 - East Asian Political Systems and Processes 3(3-0)
- PSC 345 - Middle Eastern Political Systems 3(3-0)
- PSC 346 - The Politics of Islam 3(3-0)
- PSC 347 - Comparative Politics: Western Europe 3(3-0)
- PSC 348 - Latin American Political Systems 3(3-0)
- PSC 349 - Panama: Exploring Politics and Society in a Central American Nation 3(3-0)
- PSC 515 - Comparative Public Policy 3(3-0)
- PSC 540 - Cultural Heritage and Politics of Eastern Europe 3(3-0)

**Note:** If you select 3 from this group, you must select 6 from the International Relations courses above.

**Total:** 33 semester hours

**Note:** A minimum of 15 hours of course work must be at the 300 level or above, with at least one course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement.

### Public Administration Concentration

#### Required Courses I (18 hours)
- PSC 100 - Introduction to Political Science 3(3-0)
- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 210 - Introduction to Public Administration 3(3-0)
- PSC 280 - Introduction to Empirical Methods of Political Research 3(3-0)
- PSC 313 - Budgetary Processes in the United States 3(3-0)
- PSC 411 - Public Sector Human Resources and Organization Theory 3(3-0)

#### Required Courses II (3 hours)
Select one of the following capstone experiences:
- PSC 390 - Independent Study 1-6(Spec)
- PSC 395 - Internship in Government and Politics 1-12(Spec)

**Note:** PSC 395 is required for students without any relevant PA experience. Student must have completed 56 hours or more. Students with previous relevant PA experience may select an Independent Study (PSC 390) with permission of the Internship Director.

#### Field I (3 hours)
One course in American National Political Institutions and Processes from:
- PSC 101 - Political Behavior 3(3-0)
- PSC 125 - African-American Politics 3(3-0)
- PSC 235 - Politics and Personality 3(3-0)
- PSC 320 - The American Legislative Process 3(3-0)
- PSC 321 - The American Chief Executive 3(3-0)
- PSC 322 - Judicial Process and Politics 3(3-0)
- PSC 323 - American Parties and Politics 3(3-0)
- PSC 325/PHL 345/REL 345/SOC 345 - The Civil Rights Movement 3(3-0)
- PSC 326/WST 326 - Women and Politics 3(3-0)
- PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
- PSC 328 - Campaigns and Elections 3(3-0)
- PSC 421 - Constitutional Law: Powers of Government 3(3-0)
- PSC 422 - Constitutional Law: Civil Rights and Liberties 3(3-0)
- PSC 520 - American National Government and Politics 3(3-0)

#### Field II (3 hours)
One course in American State and Local Government, Public Administration and Policy from:
- PSC 261 - State and Local Government 3(3-0)
- PSC 300 - Michigan Politics and Elections 3(3-0)
- PSC 301 - Law and Policy in Michigan State Government 3(3-0)
- PSC 514 - American Public Policy Making 3(3-0)
- PSC 516 - Environmental Politics and Policy 3(3-0)
- PSC 522 - Regulatory Processes and Administrative Law 3(3-0)
- PSC 561 - American State Government and Administration 3(3-0)
- PSC 563 - Politics and Policy in Urban Communities 3(3-0)
- PSC 565 - Managing Modern Local Government 3(3-0)
- PSC 566 - Intergovernmental Relations in the United States 3(3-0)
- PSC 585 - Computer Applications for Public Administrators 3(3-0)

#### Field III (3 hours)
One course in International Relations from:
- PSC 150 - World Politics 3(3-0)
- PSC 151 - The U.S. and the World 3(3-0)
- PSC 351 - International Relations 3(3-0)
- PSC 352 - US - Latin American Relations 3(3-0)
- PSC 453 - American Foreign Policy 3(3-0)
- PSC 551 - Seminar in International Relations 3(3-0)
- PSC 555 - International Law I 3(3-0)

(continued)
Field IV (3 hours)
One course in Comparative Politics from:
- PSC 242 - Introduction to Comparative Politics 3(3-0)
- PSC 340 - African Political Systems and Processes 3(3-0)
- PSC 341/EUR 303 - Comparative Politics: Eastern Europe 3(3-0)
- PSC 342 - Comparative Immigration Politics 3(3-0)
- PSC 343 - Southeast Asian Political Systems and Processes 3(3-0)
- PSC 344 - East Asian Political Systems and Processes 3(3-0)
- PSC 345 - Middle Eastern Political Systems 3(3-0)
- PSC 346 - The Politics of Islam 3(3-0)
- PSC 347 - Comparative Politics: Western Europe 3(3-0)
- PSC 348 - Latin American Political Systems 3(3-0)
- PSC 349 - Panama: Exploring Politics and Society in a Central American Nation 3(3-0)
- PSC 515 - Comparative Public Policy 3(3-0)
- PSC 540 - Cultural Heritage and Politics of Eastern Europe 3(3-0)

Field V (3 hours)
One course in Political Theory or Methodology from:
- PSC 275 - Great Political Thinkers 3(3-0)
- PSC 371 - American Political Thought 3(3-0)
- PSC 372 - American Radical Thought 3(3-0)
- PSC 373 - American Individualism 3(3-0)
- PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)
- PSC 378 - Modern Democratic Theory 3(3-0)
- PSC 426/PHL 426/WST 426 - Feminist Theory 3(3-0)
- PSC 583 - Survey Research 3(3-0)

Total: 33 semester hours
Note: A minimum of 15 hours of course work must be at the 300 level or above, with at least one course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement.

Minors
Political Science Minor
B.A., B.A.A.; B.S. degrees

Required Course (3 hours)
- PSC 105 - Introduction to American Government and Politics 3(3-0)

Other Requirements (12 hours)
- Select one three (3) credit hour course in four of the following five fields:

Field I
American National Political Institutions and Processes
- PSC 101 - Political Behavior 3(3-0)
- PSC 125 - African-American Politics 3(3-0)
- PSC 235 - Politics and Personality 3(3-0)
- PSC 320 - The American Legislative Process 3(3-0)
- PSC 321 - The American Chief Executive 3(3-0)
- PSC 322 - Judicial Process and Politics 3(3-0)
- PSC 323 - American Parties and Politics 3(3-0)
- PSC 325/PHL 345/REL 345/SOC 345 - The Civil Rights Movement 3(3-0)
- PSC 326/WST 326 - Women and Politics 3(3-0)
- PSC 327 - Lobbying and Interest Group Behavior 3(3-0)
- PSC 328 - Campaigns and Elections 3(3-0)
- PSC 421 - Constitutional Law: Powers of Government 3(3-0)
- PSC 422 - Constitutional Law: Civil Rights and Liberties 3(3-0)
- PSC 520 - American National Government and Politics 3(3-0)

Field II
American State and Local Government, Public Administration and Policy
- PSC 210 - Introduction to Public Administration 3(3-0)
- PSC 261 - State and Local Government 3(3-0)
- PSC 300 - Michigan Politics and Elections 3(3-0)
- PSC 301 - Law and Policy in Michigan State Government 3(3-0)
- PSC 313 - Budgetary Processes in the United States 3(3-0)
- PSC 411 - Public Sector Human Resources and Organization Theory 3(3-0)
- PSC 514 - American Public Policy Making 3(3-0)
- PSC 516 - Environmental Politics and Policy 3(3-0)
- PSC 522 - Regulatory Processes and Administrative Law 3(3-0)
- PSC 561 - American State Government and Administration 3(3-0)
- PSC 563 - Politics and Policy in Urban Communities 3(3-0)
- PSC 565 - Managing Modern Local Government 3(3-0)
- PSC 566 - Intergovernmental Relations in the United States 3(3-0)
- PSC 585 - Computer Applications for Public Administrators 3(3-0)

Field III
International Relations

Field IV
Comparative Politics

Field V
Political Theory or Methodology
- PSC 275 - Great Political Thinkers 3(3-0)
- PSC 371 - American Political Thought 3(3-0)
- PSC 372 - American Radical Thought 3(3-0)
- PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)
- PSC 378 - Modern Democratic Theory 3(3-0)
- PSC 426/PHL 426/WST 426 - Feminist Theory 3(3-0)
- PSC 583 - Survey Research 3(3-0)

Electives (5 hours)
- Select hours from the five fields listed above.

Total: 20 semester hours
Public Administration Minor

B.A.; B.A.A.; B.S. degrees

Required Courses (15 hours)

- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 210 - Introduction to Public Administration 3(3-0)
- PSC 280 - Introduction to Empirical Methods of Political Research 3(3-0)
- PSC 313 - Budgetary Processes in the United States 3(3-0)
- PSC 411 - Public Sector Human Resources and Organization Theory 3(3-0)

Electives (6 hours)

Two of the following:

- PSC 261 - State and Local Government 3(3-0)
- PSC 300 - Michigan Politics and Elections 3(3-0)
- PSC 301 - Law and Policy in Michigan State Government 3(3-0)
- PSC 320 - The American Legislative Process 3(3-0)
- PSC 395 - Internship in Government and Politics 1-12(Spec)
- PSC 514 - American Public Policy Making 3(3-0)
- PSC 516 - Environmental Politics and Policy 3(3-0)
- PSC 522 - Regulatory Processes and Administrative Law 3(3-0)
- PSC 561 - American State Government and Administration 3(3-0)
- PSC 563 - Politics and Policy in Urban Communities 3(3-0)
- PSC 565 - Managing Modern Local Government 3(3-0)
- PSC 566 - Intergovernmental Relations in the United States 3(3-0)
- PSC 585 - Computer Applications for Public Administrators 3(3-0)

Total: 21 semester hours

Public Affairs Minor

This is an interdepartmental minor. Please check the index for the page number.
Why Study Psychology?

The study of psychology at the undergraduate level will develop your knowledge and understanding of behavior. There are three reasons why this knowledge will be beneficial to you. The first is that you will better understand yourself and your environment. In other words, the study of psychology will enhance your life. The second reason for studying psychology is to acquire skills that will improve your performance in the career of your choice. The third reason for studying psychology at the undergraduate level is to prepare for graduate study in psychology or related fields such as social work or counseling.

The three reasons for studying psychology are reflected in the three basic goals adopted by the Psychology Department. These goals are (a) to help students gain an understanding of the psychological processes operating within themselves and their environment; (b) to develop the technical competence for careers that require knowledge and skills in human development, mental health, behavior analysis, and other psychological areas; and (c) to provide students with a strong foundation in the basic knowledge and skills necessary to pursue graduate study in psychology or related fields.

Psychology at CMU

In order to achieve the goals listed above, the Psychology Department offers an extensive array of undergraduate course offerings, a choice of two majors, and a minor. In addition, the department offers graduate programs leading to the master’s degree in experimental and industrial-organizational psychology, the specialist degree in school psychology, and the doctoral degree in philosophy (Ph.D.) in clinical, experimental, industrial-organizational, and school psychology. A more detailed description of the undergraduate program, including required and suggested courses for majors and minors can be found in the Undergraduate Handbook available for viewing and download at [http://www.chsbs.cmich.edu/Psychology/undergraddownloads.htm](http://www.chsbs.cmich.edu/Psychology/undergraddownloads.htm). Additional information available for download includes guides regarding additional opportunities at CMU and career possibilities in psychology.

Advising. If you are considering a major or minor in psychology, you should come to the Psychology Department office in Sloan Hall to be assigned a faculty advisor and obtain a copy of the department’s Advising Handbook. After reading the Advising Handbook, you should consult with the advisor regarding the courses that would be most appropriate for you. When meeting with your advisor, you should bring the following materials: your personal educational record, the Advising Handbook, and the CMU Bulletin that you are following.

To supplement faculty advising, Psi Chi, the national psychology honorary, offers evening meetings during the academic year dealing with general issues for any student considering a psychology major or minor and describing volunteer opportunities in human service settings in the Mt. Pleasant area. Times and dates of Psi Chi meetings are posted in Sloan Hall.

Post-Graduation Plans. Though no one can guarantee what opportunities will be available to you upon graduation, you are probably interested in knowing what paths are followed by students who obtain a bachelor’s degree in psychology. Many graduates elect to go on to graduate school in psychology or in a related discipline, such as social work or counseling. Other graduates enter the labor market, generally in either human service jobs or business-related jobs. Examples of human service jobs include probation officer, case worker in a social service agency, psychiatric aide in a psychiatric hospital, houseparent in a residential treatment facility for emotionally disturbed adolescents, and many others. Examples of business-related job areas include consumer research, personnel and management.

Credit Restrictions. On a psychology major, only PSY 100 may be taken on a Credit/No Credit basis. On a psychology minor, any course may be taken on a Credit/No Credit basis.

There are also restrictions on the number of credits of certain courses (namely, courses with unspecified content) which can count towards a major/minor. Specifically, for the following courses - PSY 200 Special Issues, PSY 400 Special Issues, PSY 496 Directed Research, PSY 497 Independent Study, PSY 498 Undergraduate Honors Thesis in Psychology, PSY 500 Special Issues, PSY 501 Workshop, and PSY 502 Teaching Assistant in Psychology, - the total number of credit hours shall be limited to nine hours counting towards the major or six hours counting toward the minor. No more than three hours of any one of these courses can count towards a major or a minor. (See course descriptions in the current CMU Bulletin for the maximum number of allowable credits that can be counted toward graduation for individual courses.)

Prerequisites. PSY 100 (or an equivalent course transferred in from another school) is a prerequisite for all other psychology courses except PSY 334. Course descriptions later in this Bulletin list other prerequisites. Recommended courses are not required, but are listed in the course descriptions to provide information on important background materials.

The Faculty

Majors

The psychology department offers you a choice of two majors. The first is a 30-credit major that is extremely flexible and is appropriate for anyone interested in psychology, regardless of post-graduation plans. The second is a 39-credit major that is relatively structured. This major is recommended if you wish to go on for graduate study in psychology.

Psychology Major - General

B.A.; B.S. degrees

This is the flexible major which you can consider regardless of your post-graduation plans including graduate school. This major requires that you complete a minimum of 30 semester hours of PSY courses.

Required Courses I (9 hours)

PSY 100 - Introduction to Psychology 3(3-0)
PSY 285 - Research Methods 3(3-0)
PSY 385 - Applications of Research Methods 3(3-0)

Required Courses II (3 hours)

Select one of the following:
PSY 211 - Introduction to Psychological Statistics 3(3-0)
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

(If STA 282 or STA 382 is used, an additional three (3) hours of psychology must be taken.)

Total: 30 semester hours

Note: You must earn a grade of “C” or better in PSY 211 to enroll in PSY 285, and earn a “C” or better in PSY 285 and have completed ENG 201 or 303 or equivalent to enroll in PSY 385. Consult individual course descriptions for prerequisites for other courses. The balance of the courses on this major should be decided by you and your psychology advisor, working together. Though not required, most students take more than 30 semester hours of PSY courses, but the department encourages you to take courses from a variety of disciplines. You must complete a minimum of 15 hours of psychology course work at CMU.

Credit restrictions: Only PSY 100 may be taken on a CR/NC basis. No more than 9 hours may be counted from the following courses with unspecified content: PSY 200, 400, 496, 498, 500, 501, 502. Further, not more than 3 hours may be counted from any one unspecified content course.

Psychology Major - Graduate Preparation

B.A.; B.S. degrees

This is the relatively structured major which is designed and recommended for you if you wish to go on for graduate work in psychology.

Required Courses I (24 hours)

PSY 100 - Introduction to Psychology 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)
PSY 285 - Research Methods 3(3-0)
PSY 330 - Social Psychology 3(3-0)
PSY 383 - Learning and Memory 3(3-0)
PSY 385 - Applications of Research Methods 3(3-0)
PSY 387 - Behavioral Neuroscience 3(3-0)
PSY 409 - History of Psychology 3(3-0)

Required Courses II (3 hours)

Select one of the following:
PSY 211 - Introduction to Psychological Statistics 3(3-0)
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Electives I (3 hours)

Select one of the following:
PSY 250 - Abnormal Psychology 3(3-0)
PSY 310 - Psychological Testing 3(3-0)
PSY 336 - Industrial/Organizational Psychology 3(3-0)
PSY 340 - Studies in Personality 3(3-0)

Electives II (3 hours)

Select one of the following:
PSY 382 - Perception 3(3-0)
PSY 384 - Behavior Analysis 3(2-2)
PSY 583 - Motivation and Emotion 3(3-0)
PSY 589 - Cognitive Psychology 3(3-0)

Electives III (6 hours)

This leaves the student with six hours of psychology electives; these hours should be selected in consultation with an advisor.

Total: 39 semester hours

Note: You must earn a grade of “C” or better in PSY 211 to enroll in PSY 285, and earn a “C” or better in PSY 285 and have completed ENG 201 or 303 or equivalent to enroll in PSY 385. Consult individual course descriptions for prerequisites for other courses. You must complete a minimum of 15 hours of psychology course work at CMU.

Credit restrictions: Only PSY 100 may be taken on a CR/NC basis. No more than 9 hours may be counted from the following courses with unspecified content: PSY 200, 400, 496, 498, 500, 501, 502. Further, not more than 3 hours may be counted from any one unspecified content course.

Neuroscience Major

B.S. degree

This is an interdisciplinary major. Please check the index for the page number.

Cognitive Science Major

B.A.; B.S. degrees

This is an interdisciplinary major. Please check the index for the page number.

Minors

Psychology Minor

B.A.; B.A.A.; B.F.A.; B.S. in B.A.

Required Course (3 hours)

PSY 100 - Introduction to Psychology 3(3-0)

Electives (18 hours)

A student must complete a minimum of 9 hours of psychology course work at CMU. If you are minoring in psychology and plan to attend graduate school in psychology, PSY 211 is strongly recommended. The balance of your credits should be selected by you and your advisor to select the set of courses which is most appropriate for you. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Total: 21 semester hours

Note: Only 6 hours may be counted from courses of unspecified content: PSY 200, 400, 496, 498, 500, 501, and 502. Further, not more than 3 hours may be counted from any one unspecified content course.
Sociology Majors and Minors

**Sociology Major**

**B.A.; B.S. degrees**

**Admission Requirements, Retention & Termination Standards**

1. SOC 200 and SOC 301 cannot be taken on a Credit/No Credit basis.
2. A grade of C (2.0) or better must be earned in SOC 200 and in SOC 301.
3. No more than three hours of course work can be taken on a Credit/No Credit basis for the major, not including courses that are only offered with this grading option.
4. No more than 15 hours of coursework can transfer to the sociology major from another institution.
5. Up to three hours of course work with an ANT or SWK designator may be taken as part of the sociology major.

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**Core Courses I (12 hours)**

- SOC 100 - Introductory Sociology 3(3-0)
- SOC 200 - Introduction to Social Research and Analysis 3(3-0)
- SOC 201 - Social Psychology 3(3-0)
- SOC 350 - Social Research Methodologies 3(3-0)

**Core Courses II (3 hours)**

- Select one of the following:
  - SOC 221 - Social Problems 3(3-0)
  - SOC 302 - Social Inequality 3(3-0)

**Core Courses III (3 hours)**

- Select one of the following:
  - SOC 301 - Sociological Theory 3(3-0)
  - SOC 501 - Development of Sociological Theory 3(3-0)

**Electives (15 hours)**

Courses that appear in more than one elective group below may be counted as satisfying requirements in both groups. Students may complete the 15 hours in electives by taking more than the minimum number of hours from Electives I, Electives II, and/or Electives III or by taking other courses with a SOC, ANT, or SWK designator. Note the limitation on the number of hours of ANT or SWK courses (found under Admissions Standards above) that can be taken as part of the Sociology Major.
Electives I
Inequalities
At least one of the following:
SOC 302 - Social Inequality 3(3-0)
SOC 317 - Sociology of Sex and Gender 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)
SOC 326 - Inequalities and Justice Processes: Race, Class and Gender 3(3-0)
SOC 502 - Theories of Race Relations in Sociology 3(3-0)

Electives II
Institutions
At least one of the following:
SOC 210 - Sociology of Science and Technology 3(3-0)
SOC 311 - Sociology of Education 3(3-0)
SOC 403 - Political Sociology 3(3-0)
SOC 411 - The Family 3(3-0)
SOC 413 - Work and Careers in America 3(3-0)
SOC 512 - Industrial Sociology 3(3-0)
SOC 524 - Sociology of Law 3(3-0)

Electives III
Advanced Coursework with Theory and Methods as Prerequisites
Select one of the following:
SOC 304 - Collective Behavior 3(3-0)
SOC 403 - Political Sociology 3(3-0)
SOC 413 - Work and Careers in America 3(3-0)
SOC 422/SWK 422 - Youth Welfare 3(3-0)
SOC 502 - Theories of Race Relations in Sociology 3(3-0)
SOC 507 - Class and Poverty in America 3(3-0)
SOC 512 - Industrial Sociology 3(3-0)
SOC 515 - Custodial Institutions 3(3-0)
SOC 521 - Advanced Study of Deviant Behavior 3(3-0)
SOC 523 - Community Corrections and Alternative Sentencing 3(3-0)
SOC 524 - Sociology of Law 3(3-0)
SOC 526 - Police and Community Relations 3(3-0)
SOC 527 - Community-Based Justice 3(3-0)

Total: 33 semester hours

Sociology Major - Social and Criminal Justice Concentration

Admission Requirements, Retention & Termination Standards
1. SOC 301 cannot be taken on a Credit/No Credit basis.
2. A grade of C (2.0) or better must be earned in SOC 301.
3. No more than nine (9) hours of coursework can transfer to the Sociology Minor from another institution.
4. No more than three hours of course work can be taken on a Credit/No Credit basis for the sociology major with a social and criminal justice concentration, not including courses that are only offered with this grading option.

Prerequisites
Required Courses I (15 hours)
SOC 100 - Introductory Sociology 3(3-0)
SOC 200 - Introduction to Social Research and Analysis 3(3-0)
SOC 221 - Social Problems 3(3-0)
SOC 302 - Social Inequality 3(3-0)
SOC 350 - Social Research Methodologies 3(3-0)

Required Courses II (3 hours)
Select one of the following:
SOC 301 - Sociological Theory 3(3-0)
SOC 501 - Development of Sociological Theory 3(3-0)

Required Courses III (21 hours)
SOC 220 - Introduction to Social and Criminal Justice 3(3-0)
SOC 222 - Juvenile Delinquency 3(3-0)
SOC 324 - Criminology 3(3-0)
SOC 326 - Inequalities and Justice Processes: Race, Class and Gender 3(3-0)
SOC 523 - Community Corrections and Alternative Sentencing 3(3-0)
SOC 525 - Internship in Social and Criminal Justice 6(Spec)

Electives (3 hours)
Select one of the following:
SOC 399 - Special Topics in Sociology 1-12(Spec)
SOC 410 - Women, Crime and Deviance 3(3-0)
SOC 422/SWK 422 - Youth Welfare 3(3-0)
SOC 515 - Custodial Institutions 3(3-0)
SOC 521 - Advanced Study of Deviant Behavior 3(3-0)
SOC 524 - Sociology of Law 3(3-0)
SOC 526 - Police and Community Relations 3(3-0)
SOC 527 - Community-Based Justice 3(3-0)

Total: 42 semester hours

Sociology Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Admission Requirements, Retention & Termination Standards
1. SOC 200 and SOC 301 cannot be taken on a Credit/No Credit basis.
2. A grade of C (2.0) or better must be earned in SOC 200 and in SOC 301.
3. No more than nine (9) hours of coursework can transfer to the Sociology Minor from another institution.

Required Courses (12 hours)
SOC 100 - Introductory Sociology 3(3-0)
SOC 200 - Introduction to Social Research and Analysis 3(3-0)
SOC 301 - Sociological Theory 3(3-0)
SOC 350 - Social Research Methodologies 3(3-0)

Electives I (3 hours)
Advanced Coursework with Theory and Methods as Prerequisites
Select one of the following:
SOC 304 - Collective Behavior 3(3-0)
SOC 403 - Political Sociology 3(3-0)
SOC 413 - Work and Careers in America 3(3-0)
SOC 422/SWK 422 - Youth Welfare 3(3-0)
SOC 502 - Theories of Race Relations in Sociology 3(3-0)
SOC 507 - Class and Poverty in America 3(3-0)
SOC 512 - Industrial Sociology 3(3-0)
SOC 515 - Custodial Institutions 3(3-0)
SOC 521 - Advanced Study of Deviant Behavior 3(3-0)
SOC 523 - Community Corrections and Alternative Sentencing 3(3-0)
SOC 524 - Sociology of Law 3(3-0)
SOC 526 - Police and Community Relations 3(3-0)
SOC 527 - Community-Based Justice 3(3-0)

Total: 23 semester hours
American Ethnic Studies Minor
B.A.; B.S.; B.A.A. degrees

Required Courses I (6 hours)
SOC 323 - Racism and Inequality 3(3-0)
SOC 502 - Theories of Race Relations in Sociology 3(3-0)

Required Courses II (12 hours)
Anthropology and Sociology
Select 12 hours from the following:
ANT 320 - North American Indian Cultures 3(3-0)
ANT 365 - Current American Indian Issues 3(3-0)
ANT 368 - Hispanic Cultures in the U.S. 3(3-0)
PHL 345 - The Civil Rights Movement 3(3-0)
PSC 325 - The Civil Rights Movement 3(3-0)
REL 345 - The Civil Rights Movement 3(3-0)
SOC 302 - Social Inequality 3(3-0)
SOC 307 - Social Movements, 1960s to the Present 3(3-0)
SOC 345 - The Civil Rights Movement 3(3-0)

Note: You may select only one of SOC 345, PHL 345, PSC 325, or REL 345.

Electives (6 hours)
Select 6 hours from the following in consultation with an advisor:
ENG 328 - Literature of the American Indian 3(3-0)
ENG 329 - African American Literature 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
HST 323 - History of Native Americans 3(3-0)
HST 324 - African-American History to 1915 3(3-0)
HST 325 - African-Americans in Twentieth Century America 3(3-0)
PSC 125 - African-American Politics 3(3-0)
PSY 533 - Psychology of Racism 3(3-0)
REL 240 - African-American Religion 3(3-0)
REL 342 - From Spirituals to Gospel 3(3-0)

Note: You may select only one of REL 240 or REL 342.

Total: 24 semester hours

Anthropology Major and Minor

Courses in anthropology are offered in three subfields:
A. Cultural and Social Anthropology: ANT 170, 200, 320, 321, 322, 324, 326, 365, 368, 370, 451, 457, 459, 506, 520, 590.
B. Physical Anthropology: ANT 171, 173, 342, 347, 351, 356
C. Archaeology: ANT 174, 175, 240, 340, 344, 426, 500

Anthropology Major
B.A.; B.S. degrees

Admission Requirements, Retention & Termination Standards
1. The anthropology advisor must approve transfer credit for required courses for the Anthropology Major.
2. No more than 15 credits of transfer credit can count toward the Anthropology Major.
3. No more than 3 credits in the major can be taken as credit/no credit.
4. ANT 426 and ANT 451 for majors cannot be taken as credit/no credit.
5. No Anthropology course at the 500 level can be taken by majors for credit/no credit.
Anthropology Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
1. The anthropology advisor must approve transfer credit for required courses for the anthropology minor.
2. No more than 9 credits from other schools can count toward the Anthropology Minor.
3. No more than 3 credits in the minor can be taken as credit/no credit.
4. No Anthropology course at the 500 level can be taken by minors for credit/no credit.

Required Courses I (6 hours)
ANT 170 - Cultural Anthropology 3(3-0)
ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)

Required Courses II (3 hours)
ANT 174 - Introduction to Prehistoric Archaeology: From Stone Age to Civilization 3(3-0)
ANT 175 - Archaeology of the Americas 3(3-0)

Electives (15 hours)
Hours to be selected with an anthropology advisor. Up to three hours of coursework in sociology (SOC) may be counted toward the minor in Anthropology.

Total: 24 semester hours

Social Work

Social Work Major
B.S.W. Degree

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
Admissions Requirements
1. Students majoring in Social Work must follow the Social Work degree plan leading to a B.S.W. degree as described in the current Bulletin.
2. A minor in Social Work is not available.
3. Students intending to apply to the social work program should make an appointment for advisement as early in their academic career as possible to assure they understand the requirements for admissions.
4. Application for admission to the program is typically completed in the spring semester of the traditional sophomore year. Students should consult their advisor about when to apply.
5. The social work major is signed following admission. If needed, students may satisfy CMU requirements prior to admission by signing a major intent with their advisor.

Procedures for Signing a Major and Admission to Social Work Program
1. Completion of 50 semester credit hours with an overall grade point average of 2.5 or better with CMU and/or prior institutions by the time the admission decision is finalized (see dates below).
2. Completion of 15 semester credit hours of University Program Requirements by the end of the term in which the admissions application is received.
3. Completion of Competency Requirements in mathematics and in oral English by the end of the term in which the admissions application is received.
4. Completion of the Freshman Composition component of the Written English Competency Requirement by the end of the term in which the admissions application is received. Students are strongly encouraged also to complete the Intermediate Composition Requirement of the Written English Competency Requirement.
5. Completion of SWK 100 and SWK 250 with a grade of 3.0 (“B”) or better in each course by the end of the term in which the admissions application is received.
6. Completion of at least 6 hours of the 15 hours of required sociology (SOC) and/or psychology (PSY) courses on the social work major with a cumulative grade point average of 2.5 (“C+”) or better, by the end of the term in which the admissions application is received.
7. Documentation of 100 hours of APPROVED volunteer or paid work experience of a helping nature and submission of a satisfactory Supervisor Reference Form, completed and signed by the student’s supervisor. (The approval and reference forms may be obtained from the social work program office.) At least fifty (50) hours must be completed by the end of the semester of the admissions application and documented with a Supervisor Reference Form. If the 100 hours are not completed by that date, submission of a second satisfactory Supervisor Reference Form for the remaining 100 hours is required prior to enrolling in SWK 321.
8. Submission of two signed Academic Reference Forms, completed by faculty or others who are familiar with student’s academic work and potential as a social worker. (This form may be obtained from the social work program office.)
9. Submission of transcript from prior post-secondary educational institutions.
10. Submission of a BSW Program Application to Admission to the Major. A Personal Interest Statement is required as part of the Application, and should address the questions outlined in the Application. (This form may be obtained from the social work program office.)

The BSW Program Application, the Academic Reference Forms, the Supervisor Reference Form, and the official transcript must be received by the Administrative Secretary of the Social Work Program office, 034 Anspach Hall, Mount Pleasant, MI 48859, on or before the first Friday in March for the annual Spring admissions cycle or on or before the Third Friday in October for the Fall admissions cycle. Faculty interviews may be part of the admissions process. Admission decision will be made by the Admissions and Academic Progress Review Committee which reserves the right to admit students who may be deficient in one area above. Applicants will be notified of decisions in writing. Additional information about the admissions process is available from the social work office in Anspach 034.

Note: Completion of all steps of the admissions process does not assure that the student will be admitted to the BSW Program. If an applicant is denied admission, the applicant may meet with the Director of the Social Work Program to determine why the applicant was denied admission and to determine what might be done to strengthen the student’s application for future submission. Admitted students should consult the Student Handbook for the Termination Policy, which contains standards for continued academic performance following admission.

Required Courses I (41 hours)
SOC 100 - Introductory Sociology 3(3-0)
SOC 200 - Introduction to Social Research and Analysis 3(3-0)
SOC 350 - Social Research Methodologies 3(3-0)
SWK 100 - Introduction to Social Work 3(3-0)
(continued)
SWK 250 - Social Welfare Policies and Services I 3(3-0)
SWK 315 - Social Work Generalist Practice I: Social Work Communications 3(3-0)
SWK 321 - Social Work Generalist Practice II 3(3-0)
SWK 331 - Social Work and Human Behavior I 3(3-0)
SWK 374 - Social Work and Human Behavior II 3(3-0)
SWK 450 - Social Welfare Policies and Services II 3(3-0)
SWK 470 - Social Work Practicum I 4(Spec)
SWK 480 - Social Work Practicum II 4(Spec)

Required Courses II (3 hours)
Select one of the following:
SOC 221 - Social Problems 3(3-0)
SOC 302 - Social Inequality 3(3-0)

Required Courses III (3 hours)
Select one of the following:
PSY 330 - Social Psychology 3(3-0)
SOC 201 - Social Psychology 3(3-0)

Total: 47 semester hours
Note: The student will enroll in SWK 470 AND SWK 480 consecutively within two years of completing the course prerequisites.

Youth Studies Minor
B.A.; B.S.; B.A.A.; B.S. in B.A., B.S.W. degrees
Sociological research and theories on middle school and high school aged youth. Explores the creation and recreation of youth as a social category, peer culture, social problems associated with youth, youth in social institutions, the impact of race, class, and gender on youth, and initiatives to promote social change. A capstone experience is included.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
1. Students with a major in Sociology, a major in Sociology with a concentration in Social and Criminal Justice, or a major in Sociology with a concentration in Social Work may NOT choose this minor.
2. Students with a Social Work major MAY choose this minor.

Required Courses I (3 hours)
Introduction
SOC 100 - Introductory Sociology 3(3-0)

Required Courses II (6 hours)
Socialization and Peer Culture Sequence
SOC 412 - Sociology of Adolescence 3(3-0)
SOC 425 - Sociology of Childhood 3(3-0)

Required Courses III (3 hours)
Capstone Experience
SOC 530 - Capstone Experience in Youth Studies 3(3-0)

Electives I (9 hours)
Institutional Focus
Select 9 hours from the following:
ANT 200 - Education and Culture 3(3-0)
SOC 215 - Youth, Deviance, and Institutions 3(3-0)
SOC 222 - Juvenile Delinquency 3(3-0)
SOC 311 - Sociology of Education 3(3-0)
SOC 411 - The Family 3(3-0)
SOC 422/SWK 422 - Youth Welfare 3(3-0)

Note: You may choose only one of ANT 200 or SOC 311 and only one of SOC 215 or 222.

Electives II (3 hours)
Development Course
Select one of the following:
HEV 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
HEV 306 - Human Growth and Development: Adolescence 3(3-0)
HST 221/WST 221 - Growing Up in America 3(3-0)
PSY 220 - Developmental Psychology 3(3-0)
PSY 324 - Childhood and Adolescence 3(3-0)

Total: 24 semester hours
May include up to three (3) additional hours of prerequisite courses depending on the student’s choice of electives.

Global Justice Minor
B.A., B.S., B.A.A., B.S.W. degrees

Required Courses I (9 hours)
To understand causes and consequences of social justice/injustice and their relationships to globalization.
SOC 101/ANT 101 - Social Justice in a Global Society 3(3-0)
SOC 457/ANT 457 - Globalization and Society 3(3-0)
SOC 531/ANT 531 - Capstone Experience in Global Justice 3(3-0)

Note: Includes service learning/activism project in the U.S. or abroad.

Required Courses II (6 hours)
To understand various types of social justice/injustice.
Select from the following:
ANT 520 - Global Perspectives in Health and Illness 3(3-0)
GEO 346 - Geography of the Developing World 3(3-0)
SOC 320 - Sociology of Aging and Retirement 3(3-0)
SOC 370/ANT 370 - Global Environmental Issues 3(3-0)
SOC 422/SWK 422 - Youth Welfare 3(3-0)
SOC 590/ANT 590/WST 590 - Gender, Culture & Society 3(3-0)

Required Courses III (3 hours)
To understand linkages between inequality and social justice/injustice.
Select from the following:
SOC 302 - Social Inequality 3(3-0)
SOC 317/WST 317 - Sociology of Sex and Gender 3(3-0)
SOC 323 - Racism and Inequality 3(3-0)

Required Courses IV (3 hours)
To understand strategies for pursuing social justice and for linking theory to practice/activism.
Select from the following:
SOC 304 - Collective Behavior 3(3-0)
SOC 307 - Social Movements, 1960s to the Present 3(3-0)
SOC 403 - Political Sociology 3(3-0)

Required Courses V (3 hours)
To understand the range of policy approaches for achieving social justice, protecting rights, and providing for social well-being.
Select from the following:
PSC 351 - International Relations 3(3-0)
PSC 515 - Comparative Public Policy 3(3-0)
SWK 250 - Social Welfare Policies and Services I 3(3-0)
SWK 450 - Social Welfare Policies and Services II 3(3-0)

Total: 24 semester hours
The College of Science and Technology consists of eight departments and over 180 faculty members. Most fields of study lead to a major or minor, many with choices of emphasis or concentration. The departments and their primary fields of study are:

- **Biology** (Biology, Biomedical Sciences, Microscopy)
- **Chemistry** (Chemistry, Biochemistry)
- **Computer Science** (Computer Science, Information Technology)
- **Geography** (Geography, Geographic Information Science, Meteorology)
- **Geology** (Geology, Hydrogeology)
- **Engineering and Technology** (Engineering, Industrial and Engineering Technology)
- **Mathematics** (Mathematics, Statistics)
- **Physics** (Astronomy, Physics)

Further information about the department and their programs can be found on the following pages. The staff of the College office can also help you locate the appropriate department and advisor.

### Interdepartmental and Interdisciplinary Programs

The College is home to many interdisciplinary and interdepartmental majors and minors. Some programs, such as the Computer Technology major, combine coursework from two departments, while others, such as the Environmental Studies major, utilize the resources of many departments. See the index of the Bulletin for interdepartmental and interdisciplinary programs. Courses offered under the designator SCI will be interdisciplinary in character; see their descriptions in the Course Description section of the Bulletin.

### Programs for Education Degrees

Majors and minors under the Bachelor of Science in Education degree are offered through the departments and as interdisciplinary programs in Integrated Science and Earth Science. If you are interested in teacher certification, consult both the specific department or program of choice and the sections on teacher certification in this Bulletin.

### Pre-Professional Studies

Medical and dental schools as well as other health-related professional schools value an undergraduate degree in one of the natural or mathematical sciences as excellent pre-professional training. All professional schools require certain basic preparatory work for acceptance. The College of Science and Technology can provide much of that preparation. See the index of this Bulletin for information on pre-professional studies offered at CMU.

### Accelerated and Combined Programs

Several departments offer programs in a time-shortened format. For example, with proper advising and planning, a student can complete the major in Physics in three years. In addition, certain departments offer accelerated master's programs that allow a student to complete both bachelor's and master's degrees in five years. Check with a department advisor about such options.

Some departments have specific arrangements with other universities so that a portion of their programs may be completed at the other university. For example, the Biology department has an agreement with the University of Southern Mississippi to provide coursework in marine science. See the department descriptions for details. In addition, many departments offer study-abroad exchange programs.

### Facilities

The College departments occupy all or parts of four buildings: Brooks, Dow, Pearce, and Engineering Technology. These buildings are connected to the campus-wide computer network and house department facilities that provide computer and Internet access for all majors and minors. Departments also provide computer services to their students for such things as computer programming, computation-intensive modeling, and data acquisition and analysis. College facilities also include the CMU Biological Station on Beaver Island in northern Lake Michigan.

Modern research facilities are available to students in each department. These include a wide variety of highly-specialized laboratories ranging from nuclear magnetic resonance spectroscopy to state-of-the-art X-ray diffraction instruments to DNA sequencing and analysis. These laboratories are routinely utilized by undergraduate students taking part in research programs.
Undergraduate Research and Internships

Students in the College should understand the value of career-related work experience and take advantage of such opportunities whenever possible. These experiences may be gained through department sponsored field studies, academic research, internships and summer employment. See your major or minor advisor to develop a plan of study that balances your course load with appropriate activities.

Student Organizations

In addition to university-wide extracurricular activities and honors organizations, the College supports many student chapters of professional organizations, honors societies, and service clubs. These organizations provide opportunities to understand the nature of a profession or the role of a professional society. Participation will help you prepare for a career and become better acquainted with other students, faculty, and working professionals. Information about activities and organizations is available in department offices.

Science and Technology Residential College

The College of Science and Technology and the Office of Residence Life offer a limited number of students the opportunity to participate in a living-learning community. There is an emphasis on academics and connections with one’s discipline. Contact the college or the Office of Residence Life (989-774-3111) for further information.

Biology (BIO, MAR)

For information, please contact the chairperson, 774-3227, 217 Brooks Hall

Why Study Biology?

Biology is the science of life. Humans share life on Earth with up to 30 million other living forms, all of which belong to one complex and fragile ecosystem. The study of biology prepares the student to understand this complex ecosystem and our interactions with it. Biology is for those who are curious about living things and wish to learn scientific methods for observing and evaluating life processes. The student may eventually be involved in social and political decisions requiring biological understanding, as well as furthering scientific knowledge through occupations dealing with biological research, natural resource management, agriculture, human health, education and other endeavors. Undergraduate training in biology is good preparation for advanced study in subdisciplines of biology such as medicine, environmental science, physiology, microbiology, molecular biology, aquatic biology, conservation biology, ecology, animal behavior, and other areas of zoology and botany.

Biology at CMU

The Department of Biology at CMU offers programs which provide undergraduate students with a core of instruction, followed by an opportunity to study in a more specialized area of biology. In addition to recently upgraded state-of-the-art laboratories, the Department of Biology operates excellent field and laboratory facilities at the CMU Biological Station located on Beaver Island in northern Lake Michigan and a nature center in Neithcutt Woodland in Farwell, Michigan. The department offers service courses in introductory and human biology, nature study, and conservation of natural resources for non-science students. The major and minor in biology can be applied to a variety of programs designed to serve career interests of students in elementary and secondary teaching, natural resources, medical technology, pre-medicine, pre-osteopathy, and pre-veterinary, as well as a program to prepare students for graduate studies in the biological sciences. Graduate programs include a Master of Science (M.S.) degree emphasizing thesis research or a non-thesis degree in biology for teachers. Requirements for the graduate programs are detailed in the Bulletin, College of Graduate Studies.

Notes:

It is essential that students interested in biology talk with a member of the Department of Biology during the first year at CMU. Courses must be selected in consultation with and approved by a departmental advisor. Students may make individual arrangements with instructors for honors work. Generally, the biology degree programs require extensive laboratory experiences in which the students use specialized equipment (including microscopes), chemicals and glassware. Students are also required to work with cultures of microorganisms and to maintain aseptic conditions. The required field experiences will introduce the student to a variety of habitats, including woodlots, fields, streams, lakes and marshes.

Natural Resources minors, Science minors, Integrated Science majors and minors, and Neuroscience majors are found in the Bulletin section on Interdepartmental Majors and Minors.

Biology credit earned on a Credit/No Credit basis does not apply on majors and minors authorized by the Department of Biology.

Courses requiring field trips will have expenses prorated among class members.

The Faculty

Non-Teaching Majors and Minors

Biology Major

B.A.; B.S. degrees

Options

Select one of the following options:

General Option

General option is for students who do not plan to attend a professional graduate school upon graduation and are not planning to enter a field associated with natural resources. This option provides flexibility in the choice of electives. Students selecting this option are required to take the core courses (20 hours) and 22 hours of elective biology courses.

Core Courses (20 hours)

- BIO 110 - Concepts of Biology 4(3-3)
- BIO 203 - General Botany 3(2-3)
- BIO 208 - Microbiology 3(2-3)
- BIO 218 - General Zoology 3(2-3)
- BIO 326 - Genetics 4(3-3)
- BIO 340 - Ecology 3(2-3)

Other Requirements I (5-9 hours)

Select one of the following options:

- Option A
  - CHM 131 - Introduction to Chemistry I 4(3-3)
  - CHM 132 - Introduction to Chemistry II 4(3-3)

- Option B
  - CHM 161 - Principles of Chemistry 5(4-4)

Other Requirements II (3-4 hours)

Select one of the following:

- PHS 101 - Survey of Physical Science 3(3-0)
- PHY 130 - College Physics I 4(4-0)

Electives (22 hours)

Biochemistry electives to be selected in consultation with a biology advisor.

Total: 50-55 semester hours

Pre-Graduate/Pre-Professional Option

Pregraduate/Preprofessional option is for students who plan to enter a graduate or professional school after graduation from CMU.

Core Courses I (20 hours)

- BIO 110 - Concepts of Biology 4(3-3)
- BIO 203 - General Botany 3(2-3)
- BIO 208 - Microbiology 3(2-3)
- BIO 218 - General Zoology 3(2-3)
- BIO 326 - Genetics 4(3-3)
- BIO 340 - Ecology 3(2-3)

Core Courses II (7 hours)

- BIO 324 - Cell Biology 3(3-0)
- BIO 391 - Plant Physiology 4(3-3)

Other Requirements I (8-9 hours)

Select one of the following options:

- Option A (8 hours)
  - CHM 131 - Introduction to Chemistry I 4(3-3)
  - CHM 132 - Introduction to Chemistry II 4(3-3)

- Option B (9 hours)
  - CHM 161 - Principles of Chemistry 5(4-4)
  - CHM 211 - Quantitative Analysis 4(3-5)

Required Courses II (20 hours)

- CHM 345 - Organic Chemistry I 3(3-0)
- CHM 346 - Organic Chemistry II 3(3-0)
- CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
- MTH 132 - Calculus I 4(4-0)
- PHY 130 - College Physics I 4(4-0)
- PHY 131 - College Physics II 4(4-0)

Other Requirements I (3 hours)

Select one of the following:

- BIO 500 - Biological Statistics 3(2-2)
- STA 382 - Elementary Statistical Analysis 3(3-0)

If BIO 500 is elected, it may count toward the 42 hours required in BIO.

Electives (15 hours)

Biochemistry electives to be selected in consultation with a biology advisor. BIO 403 is recommended as an elective course.

Total: 70-74 semester hours

Note: CHM 425, MTH 133, and CPS 110 OR CPS 150 are recommended courses.

Microscopy Option

Microscopy Option is for students who plan a career as a biological microscopist. Research laboratories, hospitals, pharmaceutical companies, chemical companies, food processing laboratories, and forensic laboratories are areas in which opportunities exist for microscopists.

Core Courses (20 hours)

- BIO 110 - Concepts of Biology 4(3-3)
- BIO 203 - General Botany 3(2-3)
- BIO 208 - Microbiology 3(2-3)
- BIO 218 - General Zoology 3(2-3)
- BIO 326 - Genetics 4(3-3)
- BIO 340 - Ecology 3(2-3)

Required Courses (20-21 hours)

- BIO 324 - Cell Biology 3(3-0)
- BIO 330 - Light Microscopy 3(2-2)
- BIO 403 - Undergraduate Research 3-4(Spec)
- BIO 550 - Transmission Electron Microscope Technique 4(1-6)
- BIO 552 - Scanning Electron Microscope Technique 4(1-6)
- BIO 553 - Confocal Microscopy 3(2-3)

Other Requirements I (5-8 hours)

Select one of the following options:

- Option A (8 hours)
  - CHM 131 - Introduction to Chemistry I 4(3-3)
  - CHM 132 - Introduction to Chemistry II 4(3-3)

- Option B (5 hours)
  - CHM 161 - Principles of Chemistry 5(4-4)

(continued)
Other Requirements II (7-8 hours)
Select one of the following options:

Option A (8 hours)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)

Option B (7 hours)
CHM 342 - Survey of Organic Chemistry 4(3-3)
CHM 421 - Survey of Biochemistry 3(3-0)

Other Requirements III (10 hours)
Select one of the following options:

Option A (10 hours)
PHY 130 - College Physics I 4(4-0)
PHY 131 - College Physics II 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)
PHY 171 - College Physics Laboratory II 1(0-2)

Option B (10 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)

Other Requirements IV (3 hours)
MTH 106 - Plane Trigonometry 3(3-0)
A higher-level math course may be substituted for MTH 106.

Electives (1-2 hours)
Biology electives to be selected in consultation with a biology advisor.

Total: 67-71 semester hours
Note: A chemistry minor is suggested.

Natural Resources Option
Natural Resources option is for students who plan to enter an area of natural resource management, wildlife biology, nature interpretation, or museum science.

Core Courses (20 hours)
BIO 110 - Concepts of Biology 4(3-3)
BIO 203 - General Botany 3(2-3)
BIO 208 - Microbiology 4(3-3)
BIO 218 - General Zoology 4(3-3)
BIO 326 - Genetics 4(3-3)
BIO 340 - Ecology 3(2-3)

Required Courses I (3 hours)
BIO 240 - Conservation of Natural Resources 3(3-0)

Required Courses II (4 hours)
Select one of the following:
BIO 391 - Plant Physiology 4(3-3)
BIO 392 - Mammalian Physiology 4(3-3)

Other Requirements I (5-9 hours)
Select one of the following options:

Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)

Option C (9 hours)
CHM 120 - Survey of Chemistry 4(4-0)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)
CHM 342 - Survey of Organic Chemistry 4(3-3)

Other Requirements II (3-4 hours)
Select one of the following:
PHS 101 - Survey of Physical Science 3(3-0)
PHY 130 - College Physics I 4(4-0)

Other Requirements III (3 hours)
Select one of the following:
BIO 500 - Biological Statistics 3(2-2)
STA 382 - Elementary Statistical Analysis 3(3-0)
Note: If BIO 500 is elected, it may count toward the 42 hours required in BIO.

Electives (15 hours)
Biology electives to be selected in consultation with a biology advisor. It is recommended that at least one class be taken at the CMU Biological Station on Beaver Island or another field station.

Total: 53-58 semester hours

Biology/Biomedical Sciences Major
B.A., B.S. degrees
The Biomedical Sciences Major is designed for students interested in pursuing professional programs in human and/or animal medicine or biomedical research. This course of study is designed to satisfy the prerequisites for admission into professional programs as well as provide students with the breadth and depth of scientific concepts in biology, chemistry and physics to perform well on required admission exams for professional programs, such as the MCAT, DAT or GRE.

Required Courses I (24 hours)
BIO 110 - Concepts of Biology 4(3-3)
BIO 208 - Microbiology 4(3-3)
BIO 218 - General Zoology 4(3-3)
BIO 326 - Genetics 4(3-3)
BIO 340 - Ecology 3(2-3)

Required Courses II (12 hours)
Advanced level courses are divided into two categories: a) Integrative Courses and b) Medical and Specialty Courses. Students must select 12 hours with at least 3 hours selected from the Integrative Courses in consultation with an advisor. In addition, at least 6 hours must be laboratory courses.

a.) Integrative Courses
BIO 501 - Evolution 3(3-0)
BIO 524 - Molecular Biology 4(3-3)
BIO 544 - Developmental Biology 4(3-3)
BIO 545 - Molecular Genetics 4(3-3)
BIO 580 - Medical Microbiology 4(2-4)
BIO 591 - Neurophysiology 3(3-0)

b.) Medical and Specialty Courses
BIO 320 - Biology of Bacteria 3(3-0)
BIO 325 - Biotechnology 3(2-3)
BIO 337 - Comparative Vertebrate Anatomy 4(3-3)
BIO 534 - Endocrinology 3(2-3)
BIO 536 - Histology 3(2-3)
BIO 537 - Immunology 4(3-3)
BIO 577 - Hematology and Immunohematology 3(2-3)
BIO 590 - Cardiovascular Physiology 3(3-0)
HSC 214 - Human Anatomy 4(3-3)
HSC 411 - Pathophysiology 3(3-0)

Note: You may not take both BIO 337 and HSC 214.
Required Courses III (2 hours)
Select one of the following capstone experiences:
BIO 403 - Undergraduate Research 3-4(Spec)
BIO 490 - Biomedical Sciences Capstone Seminar 1-2(Spec)
BIO 495 - Undergraduate Internship in Biology 1-4(Spec)
Notes: BIO 490 may be repeated with a different topic for a total
of 2 credits. BIO 495 must be taken for at least 2 credits.

Other Requirements I (4 hours)
MTH 130 - Pre-Calculus Mathematics 4(4-0)
Note: A course higher than MTH 130 may be chosen in consul-
taxion with an advisor.

Other Requirements II (8-9 hours)
Select one of the following options:
Option I (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
Option II (9 hours)
CHM 161 - Principles of Chemistry 5(4-4)
CHM 211 - Quantitative Analysis 4(3-5)

Other Requirements III (8 hours)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)

Other Requirements IV (3-6 hours)
Select one of the following options:
Option I (3 hours)
CHM 425 - Introductory Biochemistry 3(3-0)
Option II (6 hours)
CHM 521 - Biochemistry I 3(3-0)
CHM 522 - Biochemistry II 3(3-0)
Note: CHM 211 required as a prerequisite.

Other Requirements V (5 hours)
Select one of the following options:
Option I
PHY 130 - College Physics I 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)
Option II
PHY 145 - University Physics I 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)

Other Requirements VI (5 hours)
Select one of the following options:
Option I
PHY 131 - College Physics II 4(4-0)
PHY 171 - College Physics Laboratory II 1(0-2)
Option II
PHY 146 - University Physics II 4(4-0)
PHY 176 - University Physics Laboratory II 1(0-2)

Total: 71-75 semester hours
Volunteering, job shadowing and/or work experience in the
biomedical profession of the student’s choice is required for admission to many professional programs. The student should consult an advisor as to the hours required for admittance into a program within their area of interest. Proficiency in conversational Spanish is recommended for students seeking careers in health professions.

Neuroscience Major
B.S. degree
This is an interdisciplinary major. Please check the index for
the page number.

Biology Minor
B.A., B.A.A., B.S. degrees
Required Courses (20 hours)
BIO 110 - Concepts of Biology 4(3-3)
BIO 203 - General Botany 3(2-3)
BIO 208 - Microbiology 3(2-3)
BIO 218 - General Zoology 3(2-3)
BIO 326 - Genetics 4(3-3)
BIO 340 - Ecology 3(2-3)
Electives (4 hours)
Four hours of additional biology courses to be selected in con-
sultation with an advisor.
Total: 24 semester hours

Natural Resources Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.
This is an interdisciplinary minor. Please check the index for
the page number.

Science Minor
B.A.; B.S.; B.S. in B.A. degree
This minor satisfies the science requirement for the Dietetics
major and is administered by the Department of Biology.
Required Courses I (14 hours)
BIO 208 - Microbiology 3(2-3)
BIO 392 - Mammalian Physiology 4(3-3)
CHM 342 - Survey of Organic Chemistry 4(3-3)
CHM 421 - Survey of Biochemistry 3(3-0)
Note: A student opting to take CHM 345 and CHM 346 instead
of CHM 342 should have the equivalent of CHM 132 as a pre-
requisite.
Note: A student with CHM 345 and CHM 346 may elect CHM
521 and CHM 522 instead of CHM 421.
Required Courses II (4-8 hours)
Select one of the following options:
Option A (4 hours)
CHM 120 - Survey of Chemistry 4(4-0)
Option B (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
Electives (2-6 hours)
To be selected from BIO or CHM to complete 24 hours.
Total: 24 semester hours

Teaching Majors and Minors
Integrated Science Major
B.S. in Ed. degree, Provisional Elementary Certification
This is an interdisciplinary major. Please check the index for
the page number.

Integrated Science Minor
B.S. in Ed. degree, Elementary Provisional Certification and Eleme-
tary Provisional Certification with Emotional or Cognitive Impairment
Endorsement (K-12)
This is an interdisciplinary minor. Please check the index for
the page number.

Integrated Science Major
B.S. in Ed., Secondary Provisional Certification
This is an interdisciplinary major. Please check the index for
the page number.
Provisional Secondary Certification

**Admission Requirements, Retention & Termination Standards**

Biology majors and minors on the Secondary Certification are required to complete, with at least a 2.7 grade point average, 75% of the credit hours on the signed major or minor, including BIO 502, prior to approval for student teaching. At least 6 hours of the biology requirements must be taken at CMU.

**Biology Major**

*B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement*

**Admission Requirements, Retention & Termination Standards**

See above.

**Required Courses I (25 hours)**

- BIO 110 - Concepts of Biology 4(3-3)
- BIO 203 - General Botany 3(2-3)
- BIO 208 - Microbiology 3(2-3)
- BIO 218 - General Zoology 3(2-3)
- BIO 302 - Mid-tier Experience for Secondary Biology Teachers 2(1-2)
- BIO 326 - Genetics 4(3-3)
- BIO 340 - Ecology 3(2-3)
- BIO 502 - Teaching Biology 3(2-3)

**Required Courses II (4 hours)**

Select one of the following:

- BIO 391 - Plant Physiology 4(3-3)
- BIO 392 - Mammalian Physiology 4(3-3)

**Other Requirements I (5-8 hours)**

Select one of the following options:

- **Option A**
  - CHM 120 - Survey of Chemistry 4(4-0)
  - CHM 127 - Introductory Chemistry Laboratory 1(0-2)

- **Option B**
  - CHM 131 - Introduction to Chemistry I 4(3-3)
  - CHM 132 - Introduction to Chemistry II 4(3-3)

- **Option C**
  - CHM 161 - Principles of Chemistry 5(4-4)

**Other Requirements II (4-8 hours)**

Select one of the following options:

- **Option A**
  - CHM 342 - Survey of Organic Chemistry 4(3-3)

- **Option B**
  - CHM 345 - Organic Chemistry I 3(3-0)
  - CHM 346 - Organic Chemistry II 3(3-0)
  - CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)

**Other Requirements III (3-6 hours)**

Select one of the following options:

- **Option A**
  - CHM 421 - Survey of Biochemistry 3(3-0)

- **Option B**
  - CHM 425 - Introductory Biochemistry 3(3-0)

- **Option C**
  - CHM 521 - Biochemistry I 3(3-0)
  - CHM 522 - Biochemistry II 3(3-0)

**Other Requirements IV (8 hours)**

- PHY 130 - College Physics I 4(4-0)
- PHY 131 - College Physics II 4(4-0)

**Other Requirements V (3 hours)**

Select one of the following:

- BIO 500 - Biological Statistics 3(2-2)
- STA 282 - Introduction to Statistics 3(3-0)

**Note:** If a student selects BIO 500, it may count toward the 38 hours required in Biology.

**Electives (9 hours)**

Biologic courses including one course in botany and one course in zoology selected in consultation with an advisor to total 38 hours of biology credit.

**Total:** 58-71 semester hours

**Biology Minor**

*B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement*

**Admission Requirements, Retention & Termination Standards**

See information above.

**Required Courses I (3 hours)**

Select one of the following:

- BIO 101 - General Biology 3(2-2)
- BIO 105 - Introductory Quantitative Biology 3(2-2)

**Required Courses II (19 hours)**

- BIO 203 - General Botany 3(2-3)
- BIO 208 - Microbiology 3(2-3)
- BIO 218 - General Zoology 3(2-3)
- BIO 326 - Genetics 4(3-3)
- BIO 340 - Ecology 3(2-3)
- BIO 502 - Teaching Biology 3(2-3)

**Required Courses III (4 hours)**

Select one of the following:

- BIO 391 - Plant Physiology 4(3-3)
- BIO 392 - Mammalian Physiology 4(3-3)

**Total: 26 semester hours**
Why Study Chemistry and Biochemistry?

The study of chemistry provides a wide variety of opportunities for students with career interests in the sciences or related professional areas and for students in non-science areas who wish to obtain some understanding of the impact of the chemical sciences on modern society. Biochemistry applies chemical principles to the study of living systems. An undergraduate major or minor in Chemistry or Biochemistry will give you an excellent foundation to apply for and succeed in:

- professional programs in medicine, allied health sciences, dentistry, veterinary medicine, pharmacy, optometry;
- graduate work in chemistry and biochemistry;
- graduate work in a related area such as pharmacology, polymer science, materials science, chemical engineering, molecular biology, biomedical science;
- industrial chemistry positions in research and development;
- technical services, chemical marketing, technical writing, patent preparation, product formulation, quality assurance, analysis;
- teaching chemistry or the sciences.

Chemistry and Biochemistry at CMU

The Department of Chemistry offers a variety of courses at the freshman level to permit the selection of a beginning course that is most appropriate for each student. Although the principal guide in the selection of a beginning chemistry course is the student's curriculum and interest in chemistry, other considerations include previous experience in chemistry and mathematics.

Students for whom chemistry or biochemistry is a major or chemistry is a minor or degree requirement or demonstrate an aptitude for chemistry are encouraged to enroll in CHM 161 (5) Principles of Chemistry, an Honors offering, or CHM 131 (4) Introduction to Chemistry.

Students with minimal chemistry background may wish to enroll in CHM 120 (4) Survey of Chemistry. This course may satisfy some degree requirements or may also serve as preparation for CHM 131.

Students who have had no previous chemistry background and who desire some experience in chemistry as part of a liberal arts education may wish to enroll in CHM 111 (3) Interaction of Chemistry and Society, which satisfies Group IIA of University Program requirements, or CHM 101 (3) Armchair Chemistry, which satisfies the Group IIB requirement including laboratory, as do CHM 161 and CHM 131. CHM 120 meets the Group IIB requirement but does not include a laboratory. Students taking CHM 111 or 120 desiring to satisfy the Group II laboratory requirement may concurrently enroll in CHM 127 (1) Introductory Chemistry Laboratory.

A major in chemistry affords the student a broad background in all areas of chemistry (analytical, biochemistry, inorganic, organic, physical) with additional courses available in polymer and materials chemistry. The student with a chemistry major is prepared for graduate work in chemical sciences, industrial chemist positions, medical related professional schools or teaching chemistry.

A major in biochemistry requires a student to build a strong background in chemistry and biology/molecular biology with upper level courses that emphasize biological applications of chemistry (Biochemistry I and II, Bioanalytical Chemistry, Biophysical Chemistry). The biochemistry major is excellent preparation for students interested in medicine and allied health professions, pharmacy, and graduate programs in biochemistry and biomedical sciences (pharmacology, physiology, microbiology) and affords students important skills for jobs in biotechnology and pharmaceutical industries.

To properly acquaint the upper-level undergraduate student with the broader world of chemistry, the Department of Chemistry maintains an excellent departmental seminar program. All majors are encouraged to participate in this program and, in addition, to earn at least one credit in CHM 583 Seminar in Chemistry. All chemistry and biochemistry majors are required to do an extended research project in collaboration with a professor of their choosing as a capstone experience (CHM 491 Independent Study).

Students planning a major or minor program in chemistry or biochemistry should contact the appropriate departmental advisor by the end of the freshman year. Chemistry courses and their mathematics, physics and biology prerequisites should be scheduled in the proper sequence to avoid later conflict. Students planning to enter graduate school or the chemical industry are strongly encouraged to complete the requirements for the American Chemical Society (ACS) certified major in chemistry. CMU is accredited by the ACS to award degrees certified by the society.

All transfer students who wish to complete major or minor programs in chemistry or biochemistry must demonstrate proficiency by completing appropriate course work at Central Michigan University as determined by the departmental major or minor advisor.

A variety of scholarships are available in chemistry for outstanding high school students and current CMU students who plan to major in chemistry. Courses taken on a Credit/No Credit basis are not allowed on the major or minor.

The Faculty

Majors

Chemistry Major (Non-Teaching)
B.A.; B.S. degrees

Chemistry Core I (5-8 hours)
Select one of the following options:

Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)

Chemistry Core II (27-29 hours)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 331 - Inorganic Chemistry 3(2-4)
CHM 345 - Organic Chemistry II 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
CHM 351 - Physical Chemistry I 3(3-0)
CHM 352 - Physical Chemistry II 3(3-0)
CHM 357 - Physical Chemistry Laboratory 2(0-4)
CHM 425 - Introductory Biochemistry 3(3-0)
CHM 491 - Independent Study 1-3(Spec)

Electives (3-8 hours)
You must select sufficient 500-level advanced courses to meet the minimum credit hour requirement. Certain electives are required for American Chemical Society certification. Electives are to be selected in consultation with and approved by a chemistry major advisor.

Total: 40 semester hours

Notes: 11 credit hours must be in laboratory courses. (One credit hour each of CHM 131, 132, 211 and 331, and two credit hours of CHM 161 count as laboratory credit hours). *CHM 521 (3) and CHM 522 (3) may be substituted for CHM 425 (3). Students are urged to consult their major/pre-professional advisor before enrolling for biochemistry courses.

Mathematics and Physics: The following courses are required for students desiring American Chemical Society certification: MTH 132, 133, 223 and 233; PHY 145, 146, 175, and 176. Students with inadequate high school preparation may find it necessary to complete additional MTH courses. These MTH and PHY courses are also recommended for students who do not desire ACS certification. The MTH and PHY courses must be completed prior to enrolling in Physical Chemistry.

Chemistry Major (Teaching)
B.S. in Ed. degrees, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

1. The student must have completed at least 30 hours of his or her chemistry major, in addition to CHM 505 (3) and CHM 507 (1), before approval for student teaching can be given. The student must have a minimum grade point average of 2.7 in those 33 hours of chemistry courses. Transfer chemistry credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a minimum grade point average of 2.7. At least 12 of the required chemistry credit hours must have been received within 10 years of application for student teaching.

2. In order for a student to be approved for student teaching in chemistry, two CMU chemistry faculty must, at the student’s request, provide completed department student evaluation forms.

3. Each student must demonstrate competence in chemistry by passing an American Chemical Society standardized chemistry examination at a specific level in order to be approved for student teaching.

Chemistry Core I (5-8 hours)
Select one of the following options:

Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)

Chemistry Core II (27-29 hours)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 331 - Inorganic Chemistry 3(2-4)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
CHM 351 - Physical Chemistry I 3(3-0)
CHM 352 - Physical Chemistry II 3(3-0)
CHM 357 - Physical Chemistry Laboratory 2(0-4)
CHM 425 - Introductory Biochemistry 3(3-0)
CHM 491 - Independent Study 1-3(Spec)

Electives (4-8 hours)
Electives: sufficient 500-level advanced courses to meet the minimum credit hour requirement. Certain electives are required for American Chemical Society certification. Electives are to be selected in consultation with and approved by a chemistry major advisor.

Total: 40 semester hours

Notes: CHM 505 and 507 should be taken concurrently.

Biochemistry Major
B.A. and B.S. degree

Core Courses I (5-8 hours)
Select one of the following options:

Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)

Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)
Core Courses II (21 hours)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
CHM 521 - Biochemistry I 3(3-0)
CHM 522 - Biochemistry II 3(3-0)
CHM 527 - Biochemistry Laboratory I 1(0-4)
CHM 528 - Bioanalytical Techniques Laboratory 2(1-3)
Core Courses III (3-4 hours)
Select one of the following:
BIO 325 - Biotechnology 3(2-3)
BIO 524 - Molecular Biology 4(3-3)
Core Courses IV (3-6 hours)
Select one of the following options:
Option A (3 hours)
CHM 355 - Biophysical Chemistry 3(3-0)
Option B (6 hours)
CHM 351 - Physical Chemistry I 3(3-0)
CHM 352 - Physical Chemistry II 3(3-0)
Core Courses V (3 hours)
Select one of the following courses:
BIO 403 - Independent Study 1-3(Spec)
BIO 499 - Undergraduate Research 3-4(Spec)
Required Courses I (15 hours)
BIO 110 - Concepts of Biology 4(3-3)
BIO 131 - Introduction to Chemistry II 4(3-3)
BIO 132 - Introduction to Chemistry I 4(3-3)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
CHM 161 - Principles of Chemistry 4(4-4)
Required Courses II (12 hours)
BIO 208 - Microbiology 3(2-3)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
Electives (3-6 hours)
Selected in consultation with and approved by a chemistry minor advisor.
Note: five credit hours must be in laboratory courses
Total: 23 semester hours

Chemistry Minor
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards
1. The student must have completed at least 20 hours of his or her chemistry minor, in addition to CHM 505 (3), before approval for student teaching can be given. The student must have a minimum grade point average of 2.7 in those 23 hours of chemistry courses. Transfer chemistry credit will be accepted from regionally accredited institutions, but at least six hours must be CMU classes with a minimum grade point average of 2.7. At least 12 of the required chemistry credit hours must have been received within 10 years of application for student teaching.
2. In order for a student to be approved for student teaching in chemistry, two CMU chemistry faculty must, at the student’s request, provide completed department student evaluation forms.
3. Each student must demonstrate competency in chemistry by passing an American Chemical Society standardized chemistry examination at a specific level in order to be approved for student teaching.

Required Courses I (5-8 hours)
Select one of the following options:
Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)
Required Courses II (12 hours)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
Electives (0-3 hours)
Selected in consultation with and approved by a chemistry minor advisor.
Note: five credit hours must be in laboratory courses
Total: 23 semester hours

Minors

Chemistry Minor
B.A.; B.A.A.; B.S. degrees
Required Courses I (5-8 hours)
Select one of the following options:
Option A (8 hours)
CHM 131 - Introduction to Chemistry I 4(3-3)
CHM 132 - Introduction to Chemistry II 4(3-3)
Option B (5 hours)
CHM 161 - Principles of Chemistry 5(4-4)
Required Courses II (12 hours)
CHM 211 - Quantitative Analysis 4(3-5)
CHM 345 - Organic Chemistry I 3(3-0)
CHM 346 - Organic Chemistry II 3(3-0)
CHM 349 - Introduction to Organic Chemistry Lab 2(0-8)
Electives (3-6 hours)
Selected in consultation with and approved by a chemistry minor advisor.
Note: five credit hours must be in laboratory courses
Total: 23 semester hours

Chemistry-Physics Major
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement
This is an Interdepartmental major. Please check the index for the page number.
Computer Science (CPS, ITC)

For information, please contact the chairperson, 774-3774, 413 Pearce Hall

Why Study Computer Science or Information Technology?
The study of computer science can lead to such careers as applications programmer, systems programmer/analyst, computer communications specialist, database manager, and consultant. The field serves those students desiring general instruction in computer science, those interested in teaching the subject, and those who want to undertake advanced study of computer science at the graduate level. Information technology graduates will find a variety of career opportunities, including network administration, database administration, Web master, application system designer, multimedia specialist, and customer service technologist.

Computer Science at CMU
The Department of Computer Science offers a major and a minor in computer science, a major and minor in information technology, and an M.S. program in computer science.

An interdepartmental major in computer science and mathematics is offered jointly with the mathematics department.

An interdepartmental major in cognitive science is offered in conjunction with the philosophy and the psychology departments.

Two interdepartmental majors, computer-integrated manufacturing and computer technology, are offered jointly with the Department of Engineering and Technology. Students desiring a computer science course for general education purposes should consider CPS 100, 110, or 120. The first course for CPS majors and minors is CPS 180. The first course for ITC majors and minors is CPS 110 or CPS 180.

The Department of Computer Science is concerned that students interested in computer science enroll in the courses which best meet their needs or interests. Students should come to the department office to be assigned an advisor.

The Faculty

Majors

Computer Science Major
B.A.; B.S. degrees

Required Courses I (40 hours)
CPS 180 - Principles of Computer Programming 3(3-0)
CPS 181 - Introduction to Data Structures 3(3-0)
CPS 210 - Assembly Language and Computer Organization 3(3-0)
CPS 240 - Object-Oriented Programming 3(3-0)
CPS 340 - Advanced Data Structures and Algorithms 3(3-0)
CPS 360 - Computer Design and Architecture 3(3-0)
CPS 410 - Software Engineering 3(3-0)
CPS 450 - Programming Language Concepts 3(3-0)
CPS 470 - Introduction to Operating Systems 3(3-0)

Electives (9 hours)
Electives in CPS or ITC numbered at 280 or above

Total: 49 semester hours

Cognitive Science Major
B.A.; B.S. degree

This is an interdisciplinary major. Please check the index for the page number.

Computer-Integrated Manufacturing Major
B.A.; B.S. degree

This is an interdisciplinary major. Please check the index for the page number.

Computer Science-Mathematics Major
B.A.; B.S. degree

This is an interdepartmental major. Please check the index for the page number.

Computer Technology Major
B.A.; B.S. degree

This is an interdepartmental major. Please check the index for the page number. Note: Students are not currently being accepted into this program.

Information Technology Major
B.A.; B.S. degree

Required Courses I (9 hours)
Select one of the following options:

Option A (9 hours)
CPS 110 - Information Technology Programming I 3(3-0)
CPS 280C - Alternative Programming Languages 3(Spec)

Option B (9 hours)
CPS 180 - Principles of Computer Programming 3(3-0)
CPS 180 - Introduction to Data Structures 3(3-0)
CPS 280V - Alternative Programming Languages 3(Spec)

Required Courses II (18 hours)
CPS 282 - Introduction to Multimedia Design 3(3-0)
CPS 395 - Internship in Computer Science 1-9(Spec)
ITC 290 - Computer Hardware Concepts, Installation, Configuration, and Support 3(3-0)
ITC 291 - Computer Software Concepts, Installation, Configuration, and Support 3(3-0)
ITC 341 - Introduction to Databases and Applications 3(3-0)
ITC 365 - Introduction to Data Communications and Computer Networks 3(3-0)

Note: 3 hours of internship (CPS 395) is required.
**Required Courses III (3 hours)**

An IT project as a capstone experience, preferably in the student’s area of concentration. It should involve the design and implementation of a solution to a nontrivial IT problem that has some practical meaning in the real world. Capstone experiences may include a special project conducted on- or off-campus under supervision of a faculty member or an internship or service learning project supervised by an off-campus project director in coordination with the advisor.

**Choose one of the following:**
- CPS 497 - Independent Study 1-6(Spec)
- ITC 495 - Senior Internship 1-3(Spec)

**Specialized Tracks (6 hours)**

Each student is required to select one track from the following list:

- **Data Communication and Networking (6 hours)**
  - CPS 565 - Computer Networks I 3(3-0)
  - ITC 465 - Network Administration and Security 3(3-0)

- **Database (6 hours)**
  - CPS 541 - Databases 3(3-0)
  - ITC 441 - Database Administration 3(3-0)

- **Interactive Multimedia Design (6 hours)**
  - CPS 482 - Advanced Multimedia Design 3(3-0)
  - ITC 582 - Multimedia Systems 3(3-0)

- **Windows Application Development (6 hours)**
  - CPS 420 - Windows Programming 3(3-0)
  - ITC 320 - Web-Based Applications 3(3-0)

- **Custom Track (6 hours)**

  A student may choose to develop a customized track by choosing courses from the other IT tracks or courses from another subject area. The courses may be selected from a variety of disciplines at CMU. The objective of this alternative is to allow students to have the opportunity to follow special interests. The student must propose a program of six hours that represent a coordinated area of interest, and the proposal must be approved by an IT advisor.

**Other Requirements I (3 hours)**

Select one of the following:
- STA 282 - Introduction to Statistics 3(3-0)
- STA 382 - Elementary Statistical Analysis 3(3-0)

**Other Requirements II (3-4 hours)**

Select one of the following:
- MTH 132 - Calculus I 4(4-0)
- MTH 175 - Discrete Mathematics 3(3-0)

**Other Requirements III (3 hours)**

Select one of the following:
- COM 264 - Organizational Communication 3(3-0)
- COM 361 - Interpersonal Communication 3(3-0)

**Electives (6 hours)**

Each student must take 6 additional elective hours, chosen to complement the student’s program goals and approved by an IT advisor. In addition to CPS courses from other IT tracks, or other areas of CPS, possible electives might include courses such as ART 135, ART 235, ART 335, ART 435, BIO 516, BIS 280, BIS 288, BIS 327, EDU 590, GEO 303, GEO 503, HEV 246, HEV 346, HEV 334, IET 154, IET 291, IET 359, IET 394, IET 457, IET 458, IET 502, MGT 335, PSC 585, SOC 210, and TEC 321.

**Total: 51-52 semester hours**

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**Information Technology Minor**

*A minor in Information Technology may not be approved for students with majors in Cognitive Science, Computer Integrated Manufacturing, Computer Technology, or the joint major, Computer Science-Mathematics. A minor in Computer Science will be approved for students with a major in Information Technology only if another major or minor outside of the department is also obtained.*

**Required Courses I (9 hours)**

Select one of the following options:

- **Option A**
  - CPS 110 - Information Technology Programming I 3(3-0)
  - CPS 280C - Alternative Programming Languages 3(Spec)
  - ITC 111 - Information Technology Programming II 3(3-0)

- **Option B**
  - CPS 180 - Principles of Computer Programming 3(3-0)
  - CPS 181 - Introduction to Data Structures 3(3-0)
  - CPS 280V - Alternative Programming Languages 3(Spec)

**Required Courses II (6 hours)**

- ITC 290 - Computer Hardware Concepts, Installation, Configuration, and Support 3(3-0)
- ITC 291 - Computer Software Concepts, Installation, Configuration, and Support 3(3-0)

**Other Requirements (3 hours)**

Select one of the following:
- STA 282 - Introduction to Statistics 3(3-0)
- STA 382 - Elementary Statistical Analysis 3(3-0)

**Electives (6 hours)**

Select two of the following:
- CPS 282 - Introduction to Multimedia Design 3(3-0)
- CPS 395 - Internship in Computer Science 1-9(Spec)
- CPS 420 - Windows Programming 3(3-0)
- CPS 482 - Advanced Multimedia Design 3(3-0)
- ITC 320 - Web-Based Applications 3(3-0)
- ITC 341 - Introduction to Databases and Applications 3(3-0)
- ITC 365 - Introduction to Data Communications and Computer Networks 3(3-0)
- ITC 441 - Database Administration 3(3-0)
- ITC 456 - Network Administration and Security 3(3-0)

**Total: 24 semester hours**
Admission Requirements, Retention & Termination Standards

The engineering and technology degree programs consist of extensive laboratory work which involves a close physical relationship with tools, moving machinery and electrical equipment necessitating specific safe practices. Examples include voltage checks, use of safety guards, and continuous observation of associated visual alarms, caution signs and auditory signals.

Students pursuing one of our majors or minors are required to meet with an ET advisor during the first semester of attendance at CMU.

A maximum of six semester hours of Credit/No Credit may be used on departmental majors (excluding electrical and mechanical engineering) or minors. Credit/No Credit courses are identified in the course offering guides.

Engineering majors are strongly recommended to meet with their advisor at least once a semester to discuss the student’s progress in meeting the degree requirements. Prerequisites will be strictly enforced for all engineering coursework.

Engineering Majors

The engineering majors prepare students to help solve many exciting and demanding problems including important global issues related to energy and the environment, as well as the development of new devices, products and materials. Students work with advanced computer simulations and modern, well-equipped laboratories that provide exciting and valuable hands-on experience.

Mission Statement

The mission of the engineering programs at Central Michigan University is to

- Provide an environment that encourages intense interaction between and among faculty and students.
- Provide instruction that enables students to move from theoretical concepts into practical applications.
- Create graduates who are capable of succeeding in the job market or advanced studies.

Electrical Engineering Major

B.S.E.E. degree

All requirements for the Bachelor of Science in Electrical Engineering are listed in the degree section of this bulletin (see index for page number), which includes 30-39 hours of general education requirements, 34-38 hours of Mathematics and Science, and 9 hours of Business, for a minimum total of 130-134 hours for the degree.

Program Educational Objectives for Electrical Engineering

The engineering programs have established the following expectations for the accomplishments of our graduates in the first several years following graduation:

1. Our graduates will be technically competent in electrical engineering practice.
2. Our graduates will be functioning as team members who think critically and communicate effectively.
3. Our graduates will be engaged in lifelong learning activities in engineering or related fields, be actively involved in their profession, and exhibit high levels of professionalism and professional ethics.

Electrical Engineering Program Outcomes

By the time of graduation from the Electrical Engineering Program, students are expected to have:

1. an ability to apply knowledge of mathematics, science and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. 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;
4. an ability to function in multidisciplinary teams;
5. an ability to identify, formulate and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
9. a recognition of the need for and an ability to engage in lifelong learning;
10. a knowledge of contemporary issues;
11. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice;
12. an ability to apply advanced mathematics including multivariate calculus, differential equations, linear algebra, complex variables, and discrete mathematics;
13. a knowledge of probability and statistics, including electrical engineering applications;
14. a knowledge of basic sciences, computer science, and engineering sciences necessary to analyze and design complex electrical and electronic devices, software, and systems containing hardware and software components.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
See the Admission Requirements at the beginning of this department's section.

Required Courses (60 hours)
EGR 120 - Introduction to Engineering 3(3-0)
EGR 251 - Engineering Statics 3(3-0)
EGR 255 - Strength of Materials 3(3-0)
EGR 253 - Engineering Dynamics 3(3-0)
EGR 251 - Engineering Statics 3(3-0)
EGR 253 - Engineering Dynamics 3(3-0)
EGR 255 - Strength of Materials 3(3-0)
EGR 251 - Engineering Statics 3(3-0)
EGR 253 - Engineering Dynamics 3(3-0)
EGR 255 - Strength of Materials 3(3-0)

Electives (3 hours)
Select at least 3 hours from the following engineering courses:
EGR 290 - Circuit Analysis I 3(3-0)
EGR 292 - Circuit Analysis II 3(3-0)
EGR 294 - Digital Circuits 3(3-0)
EGR 298 - Microelectronic Circuits I 3(3-0)
EGR 355 - Engineering Materials 3(3-0)
EGR 371 - Robotics & Automation 3(2-2)
EGR 391 - Signal and System Theory 3(3-0)
EGR 396 - Microprocessor Fundamentals 3(3-0)
EGR 394 - Computer Circuit Simulation 3(2-2)
EGR 396 - Microprocessor Fundamentals 3(3-0)
EGR 398 - Microelectronics and Computer Lab 3(1-4)
EGR 398 - Microprocessors I 3(2-2)
EGR 399 - Senior Design I 3(2-2)
EGR 491 - CMOS Circuit Design 3(3-0)
EGR 492 - Automatic Control Systems 3(3-0)
EGR 496 - Communication Systems 3(3-0)
EGR 498 - Introduction to Electromagnetics 3(3-0)
EGR 499 - Senior Design II 3(1-4)

Total: 63 semester hours

MECHANICAL ENGINEERING MAJOR
B.S.M.E. degree
All requirements for the Bachelor of Science in Mechanical Engineering are listed in the degree section of this bulletin (see index for page number), which include 30-39 hours of general education requirements, 34-38 hours of Mathematics and Science, and 9 hours of Business, for a minimum total of 130-134 hours for the degree.

Program Educational Objectives for Electrical Engineering
The engineering programs have established the following expectations for the accomplishments of our graduates in the first several years following graduation:
1. Our graduates will be technically competent in mechanical engineering practice.
2. Our graduates will be functioning as team members who think critically and communicate effectively.
3. Our graduates will be engaged in lifelong learning activities in engineering or related fields, be actively involved in their profession, and exhibit high levels of professionalism and professional ethics.

Mechanical Engineering Program Outcomes
By the time of graduation from the Mechanical Engineering Program, students are expected to have:
1. an ability to apply knowledge of advanced mathematics through multivariate calculus, statistics, linear algebra and differential equations, chemistry, calculus-based physics and engineering;
2. an ability to design and conduct experiments, as well as to analyze and interpret data;
3. 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;
4. an ability to function in multidisciplinary teams;
5. an ability to identify, formulate and solve engineering problems;
6. an understanding of professional and ethical responsibility;
7. an ability to communicate effectively;
8. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
9. a recognition of the need for and an ability to engage in lifelong learning;
10. a knowledge of contemporary issues;
11. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice;
12. an ability to work professionally in both thermal and mechanical systems areas including the design and realization of such systems.
EGR 359 - Machine Design I 3(3-0)
EGR 360 - Solid Mechanics Laboratory 3(1-4)
EGR 371 - Robotics & Automation 3(2-2)
EGR 453 - Vibration 3(3-0)
EGR 456 - Thermodynamics II & Heat Transfer 3(3-0)
EGR 458 - Measurement and Instrumentation Laboratory 3(1-4)
EGR 459 - Machine Design II 3(3-0)
EGR 460 - Thermal Fluids Laboratory 3(1-4)
EGR 489 - Senior Design I 3(2-2)
EGR 499 - Senior Design II 3(1-4)
IET 154 - Engineering Design Graphics 3(2-2)

Electives (3 hours)
Select 3 hours from the following courses:
EGR 292 - Circuit Analysis II 3(3-0)
EGR 298 - Microelectronic Circuits I 3(3-0)
EGR 397 - Special Topics in Engineering 1-6(Spec)
EGR 437 - Directed Research in Engineering 1-3(Spec)
EGR 476 - Mechanics of Composite Materials 3(3-0)
EGR 477 - Finite Element Analysis 3(3-0)
EGR 478 - Advanced Mechanics of Materials 3(3-0)
EGR 479 - Fracture and Fatigue Analysis 3(3-0)

Total: 63 semester hours

Construction Management Major
B.A., B.A.A., B.S. degrees

Admission Requirements, Retention & Termination Standards
See the Admission Requirements at the beginning of this department's section.

Core Courses (64 hours)
CHM 120 - Survey of Chemistry 4(4-0)
ENG 303 - Technical Writing 3(3-0)
IET 154 - Engineering Design Graphics 3(2-2)
IET 170 - Metal Technology 3(1-4)
IET 180 - Power and Energy Technology 3(2-2)
IET 294 - Residential Electrical Wiring 3(2-2)
IET 327 - Industrial Safety 3(3-0)
IET 357 - Residential Architectural Graphics 3(1-4)
IET 361 - Construction Technology 3(1-4)
IET 363 - Building Code Enforcement 3(3-0)
IET 365 - Plastics Technology 3(2-2)
IET 366 - International Residential Code 3(3-0)
IET 400 - Senior Seminar 1(1-0)
IET 500 - Production Concepts 3(3-0)
IET 501 - Application of Industrial Management Principles 3(3-0)
MTH 106 - Plane Trigonometry 3(3-0)
PHY 130 - College Physics I 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)
STA 282 - Introduction to Statistics 3(3-0)

Technical Electives (6 hours)
Select 6 semester hours of coursework to be approved by your major advisor.

Total: 70 semester hours

Industrial Technology Management Major
B.A.; B.A.A.; B.S. (Plan A or B) degrees

This major offers a program of coursework for students planning careers in industry with an emphasis on technology applications and their management. The major is available with three specified concentrations.

All Industrial Technology Management students are required to complete the following core courses. Additionally, all students must complete 24 credits from one of four possible concentrations. Students also need to select six (6) credit hours of Technical Electives in consultation with an advisor.

Admission Requirements, Retention & Termination Standards
See the Admission Requirements at the beginning of this department's section.

Required Core (40 hours)
CHM 120 - Survey of Chemistry 4(4-0)
ENG 303 - Technical Writing 3(3-0)
IET 154 - Engineering Design Graphics 3(2-2)
IET 170 - Metal Technology 3(1-4)
IET 180 - Power and Energy Technology 3(2-2)
IET 327 - Industrial Safety 3(3-0)
IET 365 - Plastics Technology 3(2-2)
IET 400 - Senior Seminar 1(1-0)
IET 500 - Production Concepts 3(3-0)
IET 501 - Application of Industrial Management Principles 3(3-0)
MTH 106 - Plane Trigonometry 3(3-0)
PHY 130 - College Physics I 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)
STA 282 - Introduction to Statistics 3(3-0)

Technical Electives (6 hours)
Select 6 semester hours of coursework to be approved by your major advisor.

Concentrations
Select one of the following concentrations:

Automotive Technology Concentration
Concentration Courses (24 hours)
IET 359 - Parametric Design and Modeling 3(2-2)
IET 382 - Vehicle Control Systems 3(2-2)
IET 385 - Automotive Engines 3(1-4)
IET 388 - Automotive Power Transmission 3(2-2)
IET 425 - Industrial Internship 2-8(Spec)
IET 483 - Automotive Electrical Systems 3(2-2)
IET 485 - Fuels and Lubricants 3(2-2)
IET 486 - Automotive Testing 3(1-4)

Manufacturing Technology Concentration
Concentration Courses (24 hours)
IET 284 - Fluid Power Technology 3(2-2)
IET 291 - Applied Electronics 3(2-2)
IET 326 - Manufacturing Methods Analysis 3(3-0)
IET 359 - Parametric Design and Modeling 3(2-2)
IET 375 - Robotics 3(2-2)
IET 377 - Numerical Control Programming 3(3-0)
IET 426 - Plant Layout and Materials Handling 3(3-0)
IET 428 - Manufacturing Quality 3(3-0)

Mechanical Design Technology
Concentration Courses (24 hours)
CPS 110 - Information Technology Programming I 3(3-0)
IET 350 - Mechanism Design 3(2-2)
IET 359 - Parametric Design and Modeling 3(2-2)
IET 450 - Machine Design Graphics 3(2-2)
IET 451 - Geometric Dimensioning and Tolerancing 3(3-0)
IET 455 - Tool Design 3(2-2)
IET 457 - Computer-Aided Design 3(2-2)
IET 458 - Surface Modeling 3(2-2)

Total: 70 semester hours
Engineering Technology

Majors

B.S.E.T. degree

The engineering technology majors are designed to prepare students who aspire to careers related to electronic, manufacturing or mechanical engineering technology.

Students who wish to pursue one of these majors must fulfill all requirements for the Bachelor of Science in Engineering Technology (see index for page number), which includes 30-39 hours of general education requirements and 24-31 hours of basic science and mathematics.

Students pursuing any of these majors must consult with a departmental advisor during their first semester at CMU.

All engineering technology students are required to complete the core courses. Additionally, all students must complete 21 required credits from one of three Technology Specializations. Students also need to select nine credits of Technical Electives in consultation with an advisor. The specialization shall be the name of the major.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the Admission Requirements at the beginning of this department’s section.

Engineering Technology Core (21 hours)

All engineering technology students are required to complete the following core courses.

- IET 120 - Introduction to Engineering Technology 3(3-0)
- IET 154 - Engineering Design Graphics 3(2-2)
- IET 170 - Metal Technology 3(1-4)
- IET 284 - Fluid Power Technology 3(2-2)
- IET 292 - DC Circuit Analysis 3(2-2)
- IET 365 - Plastics Technology 3(2-2)
- IET 375 - Robotics 3(2-2)

Technical Electives (9 hours)

Select 9 hours from the following:

- IET 180 - Power and Energy Technology 3(2-2)
- IET 327 - Industrial Safety 3(3-0)
- IET 354 - Descriptive Geometry 3(2-2)
- IET 359 - Parametric Design and Modeling 3(2-2)
- IET 385 - Automotive Engines 3(1-4)
- IET 388 - Automotive Power Transmission 3(2-2)
- IET 425 - Industrial Internship 2(8 Spec)
- IET 427 - Product Reliability and Safety 3(3-0)
- IET 450 - Machine Design Graphics 3(2-2)
- IET 451 - Geometric Dimensioning and Tolerancing 3(3-0)
- IET 455 - Tool Design 3(2-2)
- IET 457 - Computer-Aided Design 3(2-2)
- IET 458 - Surface Modeling 3(2-2)
- IET 475 - Metallurgy and Materials Testing 3(2-2)
- IET 500 - Production Concepts 3(3-0)
- IET 502 - Computer Applications in Industry 3(3-0)
- IET 526 - Industrial Ergonomics 3(2-2)
- IET 576 - Industrial Automation 3(2-2)
- IET 594 - Research and Development Electronics 3(1-4)

Technology Specializations

Select one of the following three specializations. The specialization shall be the name of the major.

Electronic Engineering Technology Major

Required Specialization Courses (21 hours)
- IET 293 - AC Circuit Analysis 3(2-2)
- IET 390 - Discrete Device Theory 3(2-2)
- IET 392 - Linear Electronics 3(2-2)
- IET 394 - Digital Electronics 3(2-2)
- IET 492 - Interfacing with Programmable Devices 3(3-0)
- IET 494 - Data Acquisition and Control 3(2-2)
- IET 576 - Industrial Automation 3(2-2)

Mechanical Engineering Technology Major

Required Specialization Courses (21 hours)
- IET 350 - Mechanism Design 3(2-2)
- IET 351 - Dynamics 3(3-0)
- IET 352 - Fluid Mechanics 3(3-0)
- IET 356 - Thermodynamics 3(3-0)
- IET 379 - Mechanics of Materials 3(3-0)
- IET 452 - Mechanical Laboratory 3(1-4)
- IET 454 - Mechanical Design Problems 3(2-2)
- IET 458 - Surface Modeling 3(2-2)

Manufacturing Engineering Technology Major

Required Specialization Courses (21 hours)
- IET 225 - Manufacturing Process Planning 3(3-0)
- IET 326 - Manufacturing Methods Analysis 3(3-0)
- IET 377 - Numerical Control Programming 3(3-0)
- IET 426 - Plant Layout and Materials Handling 3(3-0)
- IET 428 - Manufacturing Quality 3(3-0)
- IET 477 - Computer-Assisted Numerical Control Programming 3(3-0)
- IET 500 - Production Concepts 3(3-0)
- IET 576 - Industrial Automation 3(2-2)

Total: 51 semester hours

Industrial Technology Minor

B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Students may select courses appropriate to any IET major concentration with advisor approval.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the Admission Requirements at the beginning of this department’s section.

Automotive

- IET 359 - Parametric Design and Modeling 3(2-2)
- IET 382 - Vehicle Control Systems 3(2-2)
- IET 385 - Automotive Engines 3(1-4)
- IET 388 - Automotive Power Transmission 3(2-2)
- IET 450 - Machine Design Graphics 3(2-2)
- IET 475 - Metallurgy and Materials Testing 3(2-2)
- IET 483 - Automotive Electrical Systems 3(2-2)
- IET 485 - Fuels and Lubricants 3(2-2)
- IET 486 - Automotive Testing 3(1-4)

Construction

- IET 160 - Wood Technology 3(1-4)
- IET 294 - Residential Electrical Wiring 3(2-2)
- IET 357 - Residential Architectural Graphics 3(1-4)
- IET 358 - Light Commercial Architectural Graphics 3(2-2)
- IET 359 - Parametric Design and Modeling 3(2-2)
- IET 361 - Construction Technology 3(1-4)
- IET 426 - Plant Layout and Materials Handling 3(3-0)
- IET 428 - Manufacturing Quality 3(3-0)
- IET 561 - Light Frame Construction Workshop 3(0-6)

(continued)
Mechanical Design and Engineering
IET 154 - Engineering Design Graphics 3(2-2)
IET 350 - Mechanism Design 3(2-2)
IET 354 - Descriptive Geometry 3(2-2)
IET 359 - Parametric Design and Modeling 3(2-2)
IET 379 - Mechanics of Materials 3(3-0)
IET 450 - Machine Design Graphics 3(2-2)
IET 451 - Geometric Dimensioning and Tolerancing 3(3-0)
IET 455 - Tool Design 3(2-2)
IET 457 - Computer-Aided Design 3(2-2)
IET 458 - Surface Modeling 3(2-2)
IET 475 - Metallurgy and Materials Testing 3(2-2)

Graphics
IET 143 - Introduction to Graphic Arts 3(2-2)
IET 154 - Engineering Design Graphics 3(2-2)
IET 343 - Line Photography and Beginning Offset 3(2-2)
IET 346 - Screen Printing 3(2-2)
IET 359 - Parametric Design and Modeling 3(2-2)
IET 443 - Process Color Procedures 3(2-2)
IET 446 - Advanced Camera Techniques 3(2-2)
IET 475 - Metallurgy and Materials Testing 3(2-2)

Manufacturing/Production
IET 225 - Manufacturing Process Planning 3(3-0)
IET 326 - Manufacturing Methods Analysis 3(3-0)
IET 359 - Computer-Aided Drafting 3(2-2)
IET 375 - Robotics 3(2-2)
IET 377 - Numerical Control Programming 3(3-0)
IET 426 - Plant Layout and Materials Handling 3(3-0)
IET 428 - Manufacturing Quality 3(3-0)
IET 475 - Metallurgy and Materials Testing 3(2-2)
IET 477 - Computer-Assisted Numerical Control Programming 3(3-0)

Total: 21 semester hours

Vehicle Engineering Design Technology (VEDT) Major
B.S. Degree

The design of vehicles has long been a major career path in Michigan. The design of our domestic vehicles has and is continuing to be a large employing segment in Michigan--as well as numerous other locations throughout the country. Now many non-domestic auto-makers are building or expanding production facilities throughout the country. In order to support this expansion there has been the development of new design, research and engineering centers. Many of these centers exist in the southeast corner of Michigan as well as near the new production facilities throughout the country.

The Department of Engineering and Technology has cooperated in the development of a VEDT major through a special relationship with CMU's Off-Campus Programs. The degree program allows students to complete their first two-years of study at the Mount Pleasant campus and to finish their degree with two-years of advanced study at a CMU Extension site. The students will receive advising from both campus and off-campus counselors. Information on the program can be viewed at www.cel.cmich.edu. Interested students should refer to the Bulletin for Off-Campus Programs, which describes the program structure and course descriptions.

Computer-Integrated Manufacturing Major
B.A.; B.S. degrees
This is an interdepartmental major. Please check the index for the page number.

Computer Technology Major
B.A.; B.S. degrees
This is an interdepartmental major. Please check the index for the page number.

Industrial Safety Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees
This is an interdepartmental major. Please check the index for the page number.

Teaching Majors and Minors

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
The engineering and technology degree programs consist of extensive laboratory work which involves a close physical relationship with tools, moving machinery and electrical equipment necessitating specific safe practices. Examples include voltage checks, use of safety guards, and continuous observation of associated visual alarms, caution signs and auditory signals.

Students pursuing one of our majors or minors are required to meet with an ET advisor during the first semester of attendance at CMU.

A maximum of six semester hours of Credit/No Credit may be used on departmental majors (excluding electrical and mechanical engineering) or minors. Credit/No Credit courses are identified in the course offering guides.

Engineering majors are strongly recommended to meet with their advisor at least once a semester to discuss the student's progress in meeting the degree requirements. Prerequisites will be strictly enforced for all engineering coursework.

Teaching Major and Minors:
Teacher Certification: Grades K-12 certification requires a teaching major and minor in industrial education. Grades 7-12 certification requires either a 42 hour industrial education major and a teaching minor from another department or a 27 hour industrial education minor and a teaching major in another department.

Vocational endorsement (Certification) is available for students who plan to become industrial education teachers. Students who plan to qualify for a vocational endorsement should consult with the department's vocational coordinator and meet the following requirements: A) Complete two years (4000 clock hours) of relevant and recent work experience in the occupational area of vocational endorsement, and B) Complete an approved technical major or minor, and C) Possess a baccalaureate degree. Transfer students must consult with an advisor before registering to avoid taking duplicate courses.

A minimum 2.7 GPA (B-) must be earned in all teaching majors and teaching minors.
Industrial Education Major

B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

See the requirements above.

Required Courses I (0-3 hours)

One of the following may be selected:

IET 116 - General Drafting 3(2-2)
IET 154 - Engineering Design Graphics 3(2-2)

Required Courses II (30-33 hours)

IET 143 - Introduction to Graphic Arts 3(2-2)
IET 160 - Wood Technology 3(1-4)
IET 170 - Metal Technology 3(1-4)
IET 180 - Power and Energy Technology 3(2-2)
IET 232 - Technology for Children 2(1-2)
IET 291 - Applied Electronics 3(2-2)
IET 365 - Plastics Technology 3(2-2)
IET 433 - Problems and Methods of Teaching Industrial Education 3(3-0)
IET 435 - Curriculum Development and Facility Planning 3(3-0)

Note: IET 238 (1) and IET 438 (3) may substitute for EDU 107 (2) to meet the professional requirements for teacher certification.

Electives (9 hours)

Courses selected with the assistance of an advisor from areas suggested by the Technology Core above.

Total: 42 Semester Hours

Industrial Education Minor (for Industrial Education Majors only)

Admission Requirements, Retention & Termination Standards

See the requirements above.

Required Courses

A 20-hour teaching minor in industrial education is required with the 41 hour teaching major if K-12 certification is desired. Consult with an advisor or mentor in the ET department for assistance in selecting courses for this minor.

Total: 20 semester hours

Industrial Education Minor (for any Secondary Teaching Major)

B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements, Retention & Termination Standards

See the requirements above.

Required Courses (6 hours)

IET 433 - Problems and Methods of Teaching Industrial Education 3(3-0)
IET 435 - Curriculum Development and Facility Planning 3(3-0)

Electives (21 hours)

Select four of the following PLUS 9 hours to be selected within one of the following areas: automotive/power, drafting, electronics, graphic arts, metal technology, wood technology

IET 116 - General Drafting 3(2-2)
IET 143 - Introduction to Graphic Arts 3(2-2)
IET 154 - Engineering Design Graphics 3(2-2)
IET 160 - Wood Technology 3(1-4)
IET 170 - Metal Technology 3(1-4)
IET 180 - Power and Energy Technology 3(2-2)
IET 291 - Applied Electronics 3(2-2)
IET 365 - Plastics Technology 3(2-2)

Total: 27 semester hours
**Why Study Geography?**

Geography (GEO/ESC/MET) offers a challenging and stimulating variety of courses and programs that will help you cope with our rapidly changing world. Geography provides an interesting and revealing approach to contemporary environmental, economic, and social issues in that it emphasizes the interrelationships and interactions between humans and the environment. Earth science courses stress the patterns and processes of natural phenomena which affect our environment. Human geography courses focus upon human patterns of occupancy and resource use. Technical courses provide the means to produce maps, images, and data bases used to display and analyze these relationships.

Geographers work under many different names -- climatologists, weather forecasters, cartographers, aerial photo/image analysts, geographic information systems specialists, resource managers, environmental consultants, land use planners, and educators.

Geography provides a means to help better understand our varied environments.

**Geography at CMU**

The general objective of the Department of Geography is to offer courses in geography, earth science, and meteorology which contribute to an understanding of the earth's physical/human systems.

The department offers both teaching and non-teaching majors and minors in Geography, as well as a Geography major with a concentration in Geographic Information Sciences (GISci), a Geography Major with a concentration in Environmental and Land Use Planning, and a GISci minor. In Earth Science, a major with a concentration in oceanography is offered. Although listed in this bulletin, the department is currently not signing majors in the Earth Science, Meteorology Concentration or the Meteorology Minor. Instead, the department offers a new major in Meteorology. The department also advises teaching and non-teaching Interdisciplinary majors and minors in Earth Science (see the index for the page number of these majors and minors).

Geography, Earth Science, and Meteorology majors are required to take courses which cover the basic content, concepts, and techniques of the disciplines. Elective hours should be selected in consultation with an advisor. Students should also consult with a departmental advisor early in their career at CMU. This may be done by contacting the department office or any of the advisors listed below.

**Notes:**

Advising. Majors and minors should begin their program as early as possible because they may be advised to elect another major or minor in a related discipline. Majors should consult with their advisor each semester prior to registration.

Credit/No Credit. Courses taken on a Credit/No Credit basis may not be counted on departmental majors and minors.

Transfer credit. Survey or introductory courses are accepted for not more than three hours per course for the department majors and minors.

Field trips. Expenses for field trips may be prorated among class members.

Student Teaching. Students seeking the Geography Department's recommendation for student teaching must have: (1) a signed major/minor in geography or earth science, (2) a minimum grade point average of 2.7 in the major/minor courses, and (3) completed a Geography Department application form.

**The Faculty**


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### Geography Majors

#### Geography Major

**B.A.; B.S. degrees**

Advisors: staff

<table>
<thead>
<tr>
<th>Core Courses (12 hours)</th>
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<tbody>
<tr>
<td>GEO 105 - Physical Geography 3(2-2)</td>
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<td>GEO 120 - Environmental Geography 3(3-0)</td>
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<tr>
<td>GEO 121 - Cultures of the World 3(3-0)</td>
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<tr>
<td>GEO 203 - Introduction to Geographic Information Science 3(2-2)</td>
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<tr>
<th>Required Courses (9 hours)</th>
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<tr>
<td>9 hours of 300-level, including one regional course.</td>
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<tr>
<th>Electives (9 hours)</th>
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<tbody>
<tr>
<td>9 hours selected with permission of instructor.</td>
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Total: 30 semester hours

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#### Geography Major

**B.A.; B.S. degrees**

#### Geographic Information Sciences (GISci) Concentration

Advisors: Becker, Li, Patton, Wu, Zheng

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<thead>
<tr>
<th>Core Courses (12 hours)</th>
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<tbody>
<tr>
<td>GEO 105 - Physical Geography 3(2-2)</td>
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<tr>
<td>GEO 120 - Environmental Geography 3(3-0)</td>
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<tr>
<td>GEO 121 - Cultures of the World 3(3-0)</td>
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<tr>
<td>GEO 203 - Introduction to Geographic Information Science 3(2-2)</td>
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<tr>
<th>Required Courses I (22 hours)</th>
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<tbody>
<tr>
<td>GEO 303 - Geographic Information Systems - I 3(2-2)</td>
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<td>GEO 305 - Remote Sensing of the Environment 3(2-2)</td>
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<td>GEO 404 - Global Positioning System 1(1-0)</td>
<td></td>
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<tr>
<td>GEO 500 - Advanced Cartography 3(2-2)</td>
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</table>
GEO 503 - Geographic Information Systems 3(2-2)
GEO 506 - Applications in Remote Sensing of the Environment 3(2-2)
GEO 508 - Digital Remote Sensing 3(2-2)
STA 382 - Elementary Statistical Analysis 3(3-0)

Required Courses II (3 hours)
Select one of the following:
CPS 110 - Information Technology Programming I 3(3-0)
CPS 180 - Principles of Computer Programming 3(3-0)

Electives (1-3 hours)
Selected in consultation with and approval of GISci advisor.

Total: 38-40 semester hours
It is suggested that a minor or second minor should be selected from the following: Earth Science, Biology with an emphasis in conservation/resources, Geology with an emphasis on environment, Mathematics, or Computer Science.

Geography Major
B.A.; B.S. degrees

Environmental and Land Use Planning Concentration
Advisors: Brea, Patton, Yamamoto

This concentration will prepare one for an entry level position in the fields of land use, environmental, or regional planning. Graduates may wish to enhance their qualifications upon completion of the concentration with graduate study in these areas.

Core Courses (12 hours)
GEO 105 - Physical Geography 3(2-2)
GEO 120 - Environmental Geography 3(3-0)
GEO 121 - Cultures of the World 3(3-0)
GEO 203 - Introduction to Geographic Information Science 3(2-2)

Required Courses I (15 hours)
GEO 303 - Geographic Information Systems I 3(2-2)
GEO 330 - Resource Perception and Utilization 3(3-0)
GEO 340 - Urban Geography 3(3-0)
GEO 530 - Land Use Planning 3(3-0)
GEO 531 - Integrated Land Use Planning 3(3-0)

Electives (9 hours)
At least one physical course (i.e. ESC or BIO) and a course in statistics is strongly recommended:

Electives I (3-9 hours)
BLR 521 - Environmental Law and Policy 3(3-0)
GEO 305 - Remote Sensing of the Environment 3(2-2)
GEO 317 - Economic Geography 3(3-0)
GEO 320 - Population Geography 3(3-0)
GEO 500 - Advanced Cartography 3(2-2)
GEO 503 - Geographic Information Systems - I 3(2-2)
GEO 508 - Digital Remote Sensing 3(2-2)
GEO 512 - Quantitative Methods for Spatial Analysis 3(2-2)
PSC 261 - State and Local Government 3(3-0)

Electives II (0-3 hours)
You may select only one of the following:
GEO 210 - Landforms 3(2-2)
GEO 310 - Surface Hydrology 3(2-2)
GEO 334 - Soil Science 3(2-2)

Electives III (0-3 hours)
You may select only one of the following:
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Total: 36 semester hours

Geography Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Advisors: Staff

Required Courses I (3 hours)
Select at least one of the following:
GEO 203 - Introduction to Geographic Information Science 3(2-2)
GEO 303 - Geographic Information Systems I 3(2-2)
GEO 305 - Remote Sensing of the Environment 3(2-2)
GEO 500 - Advanced Cartography 3(2-2)
GEO 506 - Applications in Remote Sensing of the Environment 3(2-2)
GEO 550 - Geography for Teachers 3(3-0)

Required Courses II (3 hours)
Select at least one of the following:
GEO 120 - Environmental Geography 3(3-0)
GEO 121 - Cultures of the World 3(3-0)
GEO 200 - Contemporary World Problems 3(3-0)
GEO 315 - Food and Agriculture 3(3-0)
GEO 317 - Economic Geography 3(3-0)
GEO 320 - Population Geography 3(3-0)
GEO 325 - Geography of Growth and Change 3(3-0)
GEO 330 - Resource Perception and Utilization 3(3-0)

Electives I (9 hours)
Select any 9 hours from Geo or ESC.

Total: 33 semester hours

Geography Minor
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary with Emotional or Cognitive Impairment Endorsement

Advisors: Libbee

Core Courses (12 hours)
GEO 105 - Physical Geography 3(2-2)
GEO 120 - Environmental Geography 3(3-0)
GEO 121 - Cultures of the World 3(3-0)
GEO 203 - Introduction to Geographic Information Science 3(2-2)

Required Course (3 hours)
GEO 400 - Geographic Education 3(2-2)

Electives I (3 hours)
Select one thematic course focused on social/economic issues, selected from:
GEO 315 - Food and Agriculture 3(3-0)
GEO 317 - Economic Geography 3(3-0)
GEO 325 - Geography of Growth and Change 3(3-0)
GEO 330 - Resource Perception and Utilization 3(3-0)
GEO 340 - Urban Geography 3(3-0)
GEO 345 - Political Geography 3(3-0)

Electives II (3 hours)
Select one regional course in a North American context which includes a concern with ethnic groups and minority populations selected from:
GEO 350 - United States and Canada 3(3-0)
GEO 395 - Michigan 3(3-0)
GEO 515 - Geography of the Great Lakes Region 3(3-0)

Electives III (3 hours)
Select one regional course focused on an area other than North America or an internationally focused course selected from the following:
GEO 346 - Geography of the Developing World 3(3-0)
GEO 365 - Europe 3(3-0)
GEO 373 - Latin America 3(3-0)

Electives IV (9 hours)
Select hours from Geo or ESC.

Total: 33 semester hours

Geography Minors
GEO 340 - Urban Geography 3(3-0)
GEO 345 - Political Geography 3(3-0)
GEO 530 - Land Use Planning 3(3-0)

**Required Courses III (3 hours)**
Select at least one of the following:
- GEO 350 - United States and Canada 3(3-0)
- GEO 365 - Europe 3(3-0)
- GEO 373 - Latin America 3(3-0)
- GEO 395 - Michigan 3(3-0)
- GEO 515 - Geography of the Great Lakes Region 3(3-0)

**Required Courses IV (3-4 hours)**
Select at least one of the following:
- ESC 340 - Micrometeorology 3(3-0)
- ESC 346 - Air Pollution 3(3-0)
- GEL 325 - Glacial Morphology and Landforms 3(3-0)
- GEO 105 - Physical Geography 3(2-2)
- GEO/GEL 205 - Oceanography 3(3-0)
- GEO 210 - Landforms 3(2-2)
- GEO 310 - Surface Hydrology 3(2-2)
- GEO 334 - Soil Science 3(2-2)
- GEO 335 - Biogeography 3(3-0)
- GEO 336 - Environmental Catastrophes 3(3-0)
- MET 201 - Weather 4(4-0)
- MET 240 - Meteorology 3(2-2)
- MET 301 - Climatology and Climate Change 3(3-0)
- MET 340 - Synoptic Meteorology I 3(2-2)
- MET 345 - Synoptic Meteorology II 3(2-2)

**Electives (7-9 hours)**
Selected in consultation with the minor advisor.

**Total: 20 semester hours**

**Geography Minor**
*B.S. in Ed. degree, all certifications*
Advisors: Libbee

**Core Courses (12 hours)**
- GEO 105 - Physical Geography 3(2-2)
- GEO 120 - Environmental Geography 3(3-0)
- GEO 121 - Cultures of the World 3(3-0)
- GEO 203 - Introduction to Geographic Information Science 3(2-2)

**Other Requirements (3 hours)**
- GEO 400 - Geographic Education 3(2-2)

**Electives I (3 hours)**
- GEO 315 - Food and Agriculture 3(3-0)
- GEO 317 - Economic Geography 3(3-0)
- GEO 325 - Geography of Growth and Change 3(3-0)
- GEO 330 - Resource Perception and Utilization 3(3-0)
- GEO 340 - Urban Geography 3(3-0)
- GEO 345 - Political Geography 3(3-0)

**Electives II (3 hours)**
- GEO 350 - United States and Canada 3(3-0)
- GEO 395 - Michigan 3(3-0)
- GEO 515 - Geography of the Great Lakes Region 3(3-0)

**Electives III (3 hours)**
- GEO 346 - Geography of the Developing World 3(3-0)
- GEO 365 - Europe 3(3-0)
- GEO 373 - Latin America 3(3-0)

**Total: 23-24 semester hours**

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**Geographic Information Sciences (GSci) Minor**
*B.A.; B.A.A.; B.S. degrees*
Advisors: Becker, Li, Patton, Wu, Zheng

The Geographic Information Sciences Minor provides both academic and technical training in the three major areas of the Geographic Information Sciences-cartography, GIS and remote sensing. This minor will emphasize both concepts and technical skills that will enable students to apply Geographic Information Sciences principles and techniques to their respective disciplines.

**Required Courses I (9 hours)**
- GEO 203 - Introduction to Geographic Information Science 3(2-2)
- GEO 303 - Geographic Information Systems I 3(2-2)
- GEO 305 - Remote Sensing of the Environment 3(2-2)

**Required Courses II (3 hours)**
- CPS 110 - Information Technology Programming I 3(3-0)
- CPS 180 - Principles of Computer Programming 3(3-0)

**Electives (9 hours)**
Select hours from the following:
- GEO 404 - Global Positioning System 1(1-0)
- GEO 500 - Advanced Cartography 3(2-2)
- GEO 503 - Geographic Information Systems 3(2-2)
- GEO 506 - Applications in Remote Sensing of the Environment 3(2-2)
- GEO 508 - Digital Remote Sensing 3(2-2)
- GEO 512 - Quantitative Methods for Spatial Analysis 3(2-2)
- GEO 575 - Special Studies in Geography 1-6(Spec)
- GEO 591 - Internship 1-12(Spec)
- GEO 597 - Independent Study 1-9(Spec)

**Total: 21 semester hours**

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**Earth Science Majors and Minors**

**Earth Science Major**
*B.A., B.S. degrees*

**Oceanography Concentration**
Advisor: Staff

**Required Courses I (4 hours)**
Select one of the following:
- MET 201 - Weather 4(4-0)
- MET 240 - Meteorology 3(2-2)

**Required Courses II (21 hours)**
- GEL 101 - Physical Geology 3(3-0)
- GEL 102 - Physical Geology Laboratory 1(0-2)
- GEL 201 - Earth History 3(2-2)
- GEL 303 - Oceanography: Marine Geology 3(3-0)
- GEO/GEL 205 - Oceanography 3(3-0)

**Required Courses III (3 hours)**
- BIO 101 - General Biology 3(2-2)
- BIO 105 - Introductory Quantitative Biology 3(2-2)

**Required Courses IV (5-8 hours)**
Select one of the following options:

**Option A (5 hours)**
- CHM 120 - Survey of Chemistry 4(4-0)
- CHM 127 - Introductory Chemistry Laboratory 1(0-2)

**Option B (8 hours)**
- CHM 131 - Introduction to Chemistry I 4(3-3)
- CHM 132 - Introduction to Chemistry II 4(3-3)
Electives (3-6 hours)
- Includes all MAR courses - MAR designated courses are taken at the University of Southern Mississippi’s Gulf Coast Research Laboratory.
- BIO 203 - General Botany 3(2-3)
- BIO 340 - Ecology 3(2-3)
- BIO 361 - Water Conservation 1(Spec)
- BIO 363 - Fisheries Conservation 1(Spec)
- BIO 366 - Freshwater Biology 3(2-3)
- BIO 509 - Ichthyology 4(2-4)
- BIO 510 - Fisheries Biology 4(3-2)
- BIO 526 - Limnology 3(3-0)
- BIO 527 - Limnological Methods 2(0-4)
- BIO 531 - Aquatic Vascular Plants 3(2-3)
- CHM 342 - Survey of Organic Chemistry 4(3-3)
- CHM 513 - Chemistry of Natural Waters 3(Spec)
- GEL 320 - Earth Materials 3(2-3)
- GEL 370 - Structural Geology 3(2-3)
- GEL 402 - Environmental Geochemistry 3(3-0)
- GEL 440 - Stratigraphy and Sedimentology 3(2-3)
- GEO 202 - Introduction to Geographic Information Science 3(2-2)
- GEO 303 - Geographic Information Systems I 3(2-2)
- GEO 305 - Remote Sensing of the Environment 3(2-2)
- PHY 130 - College Physics I 4(4-0)
- PHY 131 - College Physics II 4(4-0)
- PHY 145 - University Physics I 4(4-0)
- PHY 146 - University Physics II 4(4-0)
- PHY 170 - College Physics Laboratory I 1(0-2)
- PHY 171 - College Physics Laboratory II 1(0-2)
- PHY 175 - University Physics Laboratory I 1(0-2)
- PHY 176 - University Physics Laboratory II 1(0-2)

Total: 40 semester hours

It is strongly recommended that one semester or summer session be spent at CMU affiliate the University of Southern Mississippi’s Gulf Coast Research Laboratory.

Note: Students planning to pursue oceanography as a profession should concurrently select a major in their specific area of interest (e.g., geology, biology, chemistry, meteorology, geography - geographic information sciences concentration, physics, etc.). MTH 130, 132, 133, 223, 334, and various STA and CPS offerings may be necessary for certain programs and entry into graduate school.

Earth Science Major
B.A., B.S. degrees
Advisors: Becker, Franck, Matty, Morgan
This is an interdisciplinary major. Please check the index for the page number.

Earth Science Major
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement
Advisors: Franck, Kiefer, Matty, Morgan
This is an interdisciplinary major. Please check the index for the page number.

Earth Science Minor
B.A., B.A.A.; B.S.; B.S. in B.A.
Advisors: Becker, Franck, Matty, Morgan
This is an interdisciplinary minor. Please check the index for the page number.

Meteorology

Meteorology Major
B.S. degree

Required Courses (30 hours):
- MET 240 - Meteorology 3(2-2)
- MET 310 – Atmospheric Radiation and Thermodynamics 3(2-2)
- MET 312 – Meteorological Radar and Satellites 3(2-2)
- MET 320 – Cloud Physics 3(3-0)
- MET 330 – Dynamic Meteorology I 3(3-0)
- MET 335 – Dynamic Meteorology II 3(2-3)
- MET 340 – Synoptic Meteorology I 3(2-2)
- MET 345 – Synoptic Meteorology II 3(2-2)
- MET 450 – Mesoscale Meteorology 3(3-0)
- MET 480 – Numerical Weather Prediction 3(2-2)

Additional Requirements I (31 hours):
- MTH 132 – Calculus I 4(4-0)
- MTH 133 – Calculus II 4(4-0)
- MTH 223 – Linear Algebra and Matrix Theory 3(3-0)
- MTH 233 – Calculus III 4(3-0)
- MTH 334 – Differential Equations 3(3-0)
- PHY 145 – University Physics I 4(4-0)
- PHY 146 – University Physics II 4(4-0)
- PHY 175 – University Physics Laboratory I 1(0-2)
- PHY 176 – University Physics Laboratory II 1(0-2)
- STA 382 – Elementary Statistical Analysis 3(3-0)

Additional Requirements II (2-3 hours)
Select one of the following:
- CPS 150 – FORTRAN Programming 2(2-0)
- CPS 180 – Principles of Computer Programming 3(3-0)

Additional Requirements III (5-8 hours)
Select one of the following options:
Option A
- CHM 120 – Survey of Chemistry 4(4-0)
- CHM 127 – Introductory Chemistry Laboratory 1(0-2)

Option B
- CHM 131 – Introduction to Chemistry I 4(3-3)
- CHM 132 – Introduction to Chemistry II 4(3-3)

Total: 68-72 semester hours

Note: Students are encouraged to consult with an advisor during their freshman year.
I. In order to sign a major or minor in the Department of Geology, a student must first meet with the department chair and provide written evidence that the student has successfully completed 45 semester hours of university work with an overall GPA of 2.5. These 45 hours must include GEL 100, or GEL 130, or GEL 101 and GEL 102, or GEL 105 and GEL 102 with a minimum grade of B-.

II. In order to remain a major or minor in the Geology program, students are required to maintain a minimum average 2.5 GPA in all of the major and minor courses. Furthermore, students must meet the following competency qualifications:

A. Written English Competency:
   To remain a major or minor in Geology, a student must have scored in at least the 80th percentile group on the university required Written English Competency Examination (CLEP) or earned a minimum grade of B- in English 101. Students not obtaining a minimum grade of B- in English 101 must have earned a minimum grade of B- in English 201. Students should be aware that this is more demanding than the general university competency requirement. Students transferring English competency or English composition course credits from another institution will be expected to meet the same standards required of CMU students.

B. Oral English Competency:
   To remain a major or minor in Geology, a student must have earned a minimum grade of B- in COM 101 or one of its accepted substitutes (TAI 302, COM 267, COM 269, COM 357, TAI 170). Students transferring COM course credits from another institution will be expected to meet the same standard required of CMU students.

C. Math Competency:
   To remain a major in Geology, a student must have successfully satisfied the CMU Mathematics Competency Requirement. Students transferring MTH course credits from another institution will be expected to meet the same standards required of CMU students.

III. In order to graduate with a major or minor in Geology, students must achieve a minimum average 2.5 GPA for all of their major and minor courses including required cognate courses in Math, Chemistry, and Physics.
Option A (4 hours)
GEL 101 - Physical Geology 3(3-0)
GEL 102 - Physical Geology Laboratory 1(0-2)

Option B (4 hours)
GEL 102 - Physical Geology Laboratory 1(0-2)
GEL 105 - Dangerous Planet 3(3-0)

Option C (3 hours)
GEL 100 - Introduction to Earth Systems 3(2-2)

Core Courses II (25 hours)
GEL 201 - Earth History 3(2-2)
GEL 290 - Introduction to Geologic Investigation 3(2-2)
GEL 310 - Introductory Mineralogy 4(3-3)
GEL 370 - Structural Geology 3(2-3)
GEL 440 - Stratigraphy and Sedimentology 3(2-3)
GEL 450 - Geology Field Camp 5(Spec)

Options
Select one of the following two options:

I. B.S. Option A
This option is a pregraduate/preprofessional option for students who plan to attend graduate school, work in the petroleum industry, enter the field of hydrogeology or environmental geology, or enter some other professional field. Students may opt for either the geology major or the hydrogeology/environmental geology concentration. A minor is not required for this option. Students electing either selection within option A must also complete the core courses.
Select either the Required Courses and Electives for the Geology Major or the Required Courses and Electives for the Hydrogeology/Environmental Geology Concentration:

Required Courses and Electives for the Geology Major
Core Courses I and II (see above)
Required Courses I (15 hours)
GEL 406 - Senior Thesis 3(Spec)
GEL 430 - Invertebrate Paleontology 3(2-3)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
Required Courses II (3 hours)
GEL 372 - Introduction to Geophysics 3(2-3)
GEL 380 - Hydrogeology 3(2-3)
GEL 402 - Environmental Geochemistry 3(3-0)
GEL 406 - Senior Thesis 3(Spec)
GEL 413 - Geomorphology 3(3-0)
GEL 575 - Special Studies in Geology 1-6(Spec)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)

Required Courses II (3 hours)
Select one of the following:

I. B.S. Option B
This option is designed for students who desire the curricular freedom of selecting a minor. Students choose between a geology major or hydrogeology/environmental concentration. With an appropriate minor, this curriculum will adequately prepare a student for graduate school or a career in the geological or environmental sciences.
Select the Required Courses and Electives for the Geology Major or the Required Courses and Electives for the Hydrogeology/Environmental Geology Concentration:

Geology Major
Core Courses I and II (see above)
Required Courses I (3 hours)
GEL 430 - Invertebrate Paleontology 3(2-3)
Required Courses II (3 hours)

Electives (3 hours)
Select approved 300-level or above electives excluding GEL 301, 304, and 320.

Total: 64-68 semester hours

Notes:

II. B.A. or B.S. Option B
This option is designed for students who desire the curricular freedom of selecting a minor. Students choose between a geology major or hydrogeology/environmental concentration. With an appropriate minor, this curriculum will adequately prepare a student for graduate school or a career in the geological or environmental sciences.
Select the Required Courses and Electives for the Geology Major or the Required Courses and Electives for the Hydrogeology/Environmental Geology Concentration:

Geology Major
Core Courses I and II (see above)
Required Courses I (3 hours)
GEL 430 - Invertebrate Paleontology 3(2-3)
Required Courses II (3 hours)
Select one of the following:
GEL 372 - Introduction to Geophysics 3(2-3)
GEL 380 - Hydrogeology 3(2-3)
GEL 460 - Geochemistry 3(3-0)

Electives (3 hours)
Select approved 300-level or above electives excluding GEL 301, 304, and 320.

Total: 37-38 semester hours
Note: 16 hours of prerequisites (CHM 131, CHM 132, MTH 132, PHY 130)

Hydrogeology/Environmental Geology Concentration
Core Courses I and II (see above)

Required Courses I (6 hours)
GEL 372 - Introduction to Geophysics 3(2-3)
GEL 380 - Hydrogeology 3(2-3)

Required Courses II (3 hours)
Select one of the following:
GEL 402 - Environmental Geochemistry 3(3-0)
GEL 460 - Geochemistry 3(3-0)
GEL 575 - Special Studies in Geology 1-6(Spec)

Electives (3 hours)
Select electives from the following:
CHM 342 - Survey of Organic Chemistry 4(3-3)
CHM 345 - Organic Chemistry I 3(3-0)
GEL 101 - Physical Geology 3(3-0)
GEL 102 - Physical Geology Laboratory 1(0-2)
GEO 310 - Surface Hydrology 3(2-2)
STA 382 - Elementary Statistical Analysis 3(3-0)

Total: 21-23 semester hours
Note: You may only select one of BIO 365, CHM 342, or CHM 345.
Earth Science Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.
Advisors: Becker, Francek, Matty, Morgan
This is an interdisciplinary minor. Please check the index for the page number.

Earth Science Minor
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement
Advisors: Francek, Kiefer, Matty, Morgan
This is an interdisciplinary minor. Please check the index for the page number.

Environmental Studies Minor
B.A.A.; B.S. in B.A. degrees
This is an interdisciplinary minor. Please check the index for the page number.

Integrated Science Minor
B.S. in Ed. degree, Provisional Elementary Certification
This is an interdisciplinary minor. Please check the index for the page number.

Mathematics (MTH, STA)
For information, please contact the chairperson, 774-3596, 214 Pearce Hall FAX (899)774-2414, E-mail: Math@cmich.edu, Website: www.cst.cmich.edu/units/mth

Why Study Mathematics?
What do the mathematical sciences involve? They all involve the study of patterns. Many, but not all, of these patterns involve numbers. Some of these patterns emerge from problems or situations in the world around us. Others emerge from considering how mathematical ideas fit together. People with a background in the mathematical sciences solve problems. Some mathematicians solve problems dealing with communications technology. Statisticians use data to make informed decisions. Actuaries find ways to manage risk. Mathematics teachers help others learn about ideas in the mathematical sciences. As a mathematician, your problem-solving expertise will allow you to make contributions to many areas like business, industry, government, education, and more. The study of mathematics includes comprehensive training in thinking, reasoning, and problem-solving skills. These skills will strengthen your education, make you a well-rounded individual and enhance your appeal to employers worldwide.

Mathematics at CMU
The Department of Mathematics provides a variety of programs. Depending on preference, a student may prepare to become a teacher of mathematics; study to become an applied mathematician, actuary, statistician or computer scientist; prepare for graduate work in mathematics or statistics; or earn a general liberal arts undergraduate degree with a major in mathematics. Five minor programs in mathematics also are available for a student needing a concentration in mathematics to support his/her major. In addition, service courses are provided for programs throughout the university, and a number of courses meet the mathematics competency requirement.

The Faculty
Majors

Mathematics Major
B.A.; B.S. degrees

Required Courses I (24 hours)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
MTH 233 - Calculus III 4(4-0)
MTH 332 - Introduction to Analysis 3(3-0)
MTH 499 - Capstone Course in Mathematics 3(3-0)
MTH 523 - Modern Algebra I 3(3-0)

Required Courses II (3 hours)
Select one of the following:
MTH 532 - Advanced Calculus I 3(3-0)
MTH 545 - Introduction to Point-Set Topology 3(3-0)

Electives (9 hours)
Nine or more hours of electives are to be selected from MTH, STA, or CPS in consultation with and approved by a mathematics advisor and must be numbered MTH 296 or higher, STA 382 or higher, or CPS 181 or higher. See notes on double counting at the end of this section.

MTH 175 (3) Discrete Mathematics may be included as an elective. If MTH 175 is included, then at least 33 hours of the total hours must be in mathematics or statistics.

Total: 36 semester hours

Mathematics Major
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission Requirements; Retention & Termination Standards
To sign a major, students must have completed MTH 132 with a grade of B- or higher.
A minimum 2.7 GPA (B-) must be earned in all teaching majors.

Required Courses (38 hours)
MTH 132 - Calculus I 4(4-0)
MTH 175 - Discrete Mathematics 3(3-0)
MTH 256 - Problem Solving with Technology for K-8 Mathematics Teachers 3(3-0)
MTH 351 - Geometry for K-8 Mathematics Teachers 3(3-0)
MTH 551 - Mathematical Structures of K-8 Mathematics Teachers 3(3-0)
MTH 553 - History of Elementary Mathematics for K-8 Teachers 3(3-0)
MTH 554 - Probability and Statistics for K-8 Mathematics Teachers 3(3-0)

Required Courses II (3 hours)
Select one of the following:
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Electives (6 hours)
Electives (6 semester hours) are to be selected from MTH or STA in consultation with and approval by a mathematics advisor.

Total: 31 semester hours

NOTE: See notes on double counting at the end of this section.

Statistics Major
B.A.; B.S. degrees

Required Courses (33 hours)
MTH 132 - Calculus I 4(4-0)
MTH 133 - Calculus II 4(4-0)
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
MTH 233 - Calculus III 4(4-0)
STA 382 - Elementary Statistical Analysis 3(3-0)
STA 575 - Statistical Programming for Data Management and Analysis 3(3-0)
STA 580 - Applied Statistical Methods I 3(3-0)
STA 584 - Mathematical Statistics I 3(3-0)
STA 585 - Mathematical Statistics II 3(3-0)
STA 590 - Applied Statistical Methods II 3(3-0)

Other Requirements (6 hours)
Select one of the following options:
Option A (6 hours)
Mathematics Track - recommended for students who plan to do graduate study.
MTH 332 - Introduction to Analysis 3(3-0)
MTH 532 - Advanced Calculus I 3(3-0)
Option B (6 hours)
Select hours from the courses in which statistics has a natural application from a discipline other than MTH or STA. These courses may not be double counted as general education courses nor courses required by the minor which a student is taking. The track and courses must be approved by an advisor in the Department of Mathematics.

Electives (6 hours)
Select two of the following:

- STA 582 - Experimental Designs 3(3-0)
- STA 583 - Nonparametric Statistics 3(3-0)
- STA 586 - Clinical Trials and Survival Analysis I 3(3-0)
- STA 587 - Statistical Theory and Methods for Quality Improvement 3(3-0)
- STA 588 - Sampling Techniques 3(3-0)
- STA 589 - Time Series Forecasting 3(3-0)
- STA 591 - Statistical Methods for Data Mining 3(3-0)

Total: 45 semester hours

NOTE: See notes on double counting at the end of this section.

Actuarial Science Major
This interdisciplinary major is for students who wish to pursue a career in actuarial science. Please see the index for the page number.

Computer Science-Mathematics Major
This is an interdepartmental major for students who have an interest in both mathematics and computer science. Please see the index for the page number.

Minors

Mathematics Minor
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

ADMISSIONS REQUIREMENTS; RETENTION & TERMINATION STANDARDS
To sign a minor, students must have completed MTH 132 with a grade of B- or higher.

A minimum 2.7 GPA (B-) must be earned in all teaching majors.

Required Courses (29 hours)
- MTH 132 - Calculus I 4(4-0)
- MTH 133 - Calculus II 4(4-0)
- MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
- MTH 261 - Problem-Based Algebra and Calculus for Secondary Teachers 3(3-0)
- MTH 332 - Introduction to Analysis 3(3-0)
- MTH 341 - College Geometry 3(3-0)
- MTH 362 - Problem-Based Geometry for Secondary Teachers 3(3-0)
- MTH 363 - Problem-Based Probability and Statistics for Secondary Teachers 3(3-0)
- MTH 462 - Capstone on Teaching and Learning Mathematics for Secondary Teachers 3(3-0)

Total: 29 semester hours
Statistics Minor
\[ B.A.;\ B.A.A.;\ B.S.;\ B.S.\ in\ B.A.\ degrees \]
A substitution of any course must be approved by an advisor in the Department of Mathematics prior to taking the course. See note on double counting.

**Required Courses (13 hours)**
- MTH 132 - Calculus I 4(4-0)
- STA 382 - Elementary Statistical Analysis 3(3-0)
- STA 575 - Statistical Programming for Data Management and Analysis 3(3-0)
- STA 580 - Applied Statistical Methods I 3(3-0)

**Electives (9 hours)**
Select three courses from the following:
- STA 582 - Experimental Designs 3(3-0)
- STA 583 - Nonparametric Statistics 3(3-0)
- STA 586 - Clinical Trials and Survival Analysis I 3(3-0)
- STA 587 - Statistical Theory and Methods for Quality Improvement 3(3-0)
- STA 588 - Sampling Techniques 3(3-0)
- STA 589 - Time Series Forecasting 3(3-0)
- STA 591 - Statistical Methods for Data Mining 3(3-0)

**Total:** 22 semester hours

**NOTE:** See notes on double counting at the end of this section.

Mathematics Minor
\[ B.A.;\ B.S.\ degrees \]

**Required Courses (11 hours)**
- MTH 132 - Calculus I 4(4-0)
- MTH 133 - Calculus II 4(4-0)
- MTH 223 - Linear Algebra and Matrix Theory 3(3-0)

**Electives (9 hours)**
1. At least 17 hours must be in mathematics or statistics other than MTH 175.
2. MTH 175 (3) Discrete Mathematics, may be included, but remaining hours in MTH or STA must be numbered higher than MTH 223.
3. A CPS course must be numbered CPS 150 or higher to be counted.
4. Electives in MTH, STA, or CPS must be chosen in consultation with and approved by a mathematics advisor.

**Total:** 20 semester hours

**NOTE:** See notes on double counting at the end of this section.

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**Notes on Double Counting**
- Note to students with Mathematics major and Statistics minor or Statistics major and Mathematics minor: these combinations are permitted only if another major or minor is also obtained.
- Note to students with Actuarial Science major and Mathematics major or Mathematics minor: for this combination, student must take 6 hours of MTH or STA courses numbered 300 or above which are not counted toward the Actuarial Science major.
- Note to student with Mathematics major and Statistics major with Mathematics track: on the Mathematics major, at least 9 hours at the 300 level or above must not be counted on the Statistics major. Also, student must have an outside major or minor.
- Note to students with Statistics major with Application track: Student must have a minor in an area other than Mathematics or another major.
Why Study Physics and Astronomy?

Physics is the basis of science and technology. The laws of physics describe the behavior of matter and energy and help us to understand the physical world. On the smallest scale, physicists study quarks, nuclei, atoms, and other basic constituents of matter. They also study the mechanical, electromagnetic, and thermal properties of solids, liquids, gases, and plasmas. On the grand scale, physicists and astronomers study stars and galaxies, and apply physical principles to questions about the nature of the universe.

More than 50,000 physicists work in industry, educational institutions, state and federal government, and nonprofit research centers in the United States. Some of them perform basic research in physics, while others apply their knowledge to solve human problems in such areas as energy sources, environmental protection, medicine, transportation, communication, meteorology, geology, and defense.

These researchers are supported by those who teach science and engineering, providing students with the problem-solving and laboratory skills necessary for challenging the future. Physics teachers are prepared to instruct in the high school or community college, and many physicists are employed as university professors. Besides educating future physicists, our faculty provides students with the knowledge of physics that is required for such fields as medicine, engineering, technical writing, and environmental science.

Physics and Astronomy at CMU

The Department of Physics offers physics and astronomy courses to serve the needs of the following groups of students: those who contemplate graduate studies or professional employment in physics and astronomy; those who plan to teach physics or astronomy at community colleges and secondary schools; those who plan to enter the professions such as medicine or engineering, which require a thorough understanding of physical concepts; and those who plan to major in another academic discipline and desire an understanding of the fundamental processes which govern the physical environment.

The department offers courses in astronomy designed to meet several needs. A student may complete a portion of the requirements for an interdisciplinary major or minor, or as a major in another academic discipline obtain a better understanding of the physical world. The department also offers a variety of service and general education courses in introductory physics, physical science, and astronomy for students in programs that are not directly related to science.

A student can take a major or a minor in physics. An astronomy concentration is available on the physics major for students who intend to pursue graduate work in astronomy. Students who are headed for a teaching career have available to them the physics major and minor, and an interdepartmental chemistry-physics major. Any student interested in a departmental major or minor should contact the chairperson as soon as possible to be assigned an advisor.

Undergraduate and graduate physics students have opportunities for individual research projects in the advanced physics laboratory and also in the research laboratories of the department: the Brooks Astronomical Observatory, the laser spectroscopy laboratory, the x-ray diffraction laboratory, the polymer fluid dynamics laboratory, the thin-films laboratory and the Center for High Performance Scientific Computing. Such projects are supported by two full-time technicians who staff a machine shop and an electronics shop.

The department’s classrooms, laboratories, and faculty offices are located in the Leon and Frances McDermott wing of the Dow Science Complex. The observatory and associated facilities are in Brooks Hall. The main collection of physics and astronomy books and serials is in the Park Library. There is a departmental reading room in Dow 231, where tutors are available during the evening hours. Computers with access to the department’s and the university’s networked resources are available in this room, as well as elsewhere in the department.

Notes:

The physics department offers courses under three designators: PHY, PHS, AST. These courses are described in detail in the part of this Bulletin entitled “Course Descriptions” where designators are arranged in alphabetical order. Physics and engineering students, as well as students of chemistry, meteorology, and geology, normally begin their study of physics with a calculus-based sequence. A separate introductory physics sequence based on trigonometry is offered for biology and pre-professional students.

The Faculty

David H. Current, Jan Fiala, Joseph Finck, Marco Fornari, Stanley Hirschi, Mihai Horoi, Koblar Jackson, Axel Mellinger, Juan Peralta, Valeri Petkov, Frederick M. Phelps III, Andrzej Sieradzan, Christopher Tycner, Glen Williams
Physics Majors and Minors

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
Prospective majors are urged to begin the study of mathematics in the fall of the freshman year with MTH 132 (or MTH 130, if necessary) and their study of physics in the winter of the freshman year with PHY 145 and 175.

No more than five semester hours of credit taken on a credit/no credit basis may be counted toward the physics major or minor. Since the department permits credit/no credit registration only for beginning physics courses, the restriction refers specifically to PHY 145 and 175.

Although not recommended, the following course substitutions can be allowed for a student who successfully completes PHY 247:
• PHY 130 in place of 145,
• PHY 131 for 146,
• PHY 170 for 175,
• PHY 171 for 176.

Transfer students from two-year colleges can complete a major in physics in two additional years if they have satisfactorily completed a one-year course in calculus and a one year course in general physics (preferably utilizing calculus). Transfer students should consult the chairperson of this department at their earliest opportunity, and in any case, prior to initial registration.

Physics Teaching Majors and Minors - A minimum 2.7 GPA (B-) must be earned in all teaching majors and minors.

Student Teaching in Physics (B.S. in Education) - For students seeking the department’s recommendations for student teaching in physics, the following requirements must be met:
1. At least 20 hours of physics (including PHY 505) must be completed with a minimum grade point average of 2.7.
2. At least 6 hours of physics (excluding PHY 505) must be completed at CMU.

Majors

Physics Major
B.A., B.S. degrees

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
See the information at the beginning of this section.

Core Courses (36 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)
PHY 247 - Introduction to Modern Physics 4(4-0)
PHY 277 - University Physics Laboratory III 1(0-3)
PHY 312 - Introduction to Mathematical Physics 3(3-0)
PHY 322 - Intermediate Mechanics 3(3-0)
PHY 332 - Electricity and Magnetism 3(3-0)
PHY 442 - Introductory Quantum Theory 4(4-0)
PHY 450 - Thermal Physics 3(3-0)
PHY 491 - Senior Physics Project 3(Spec)
PHY 578 - Experimental Physics 2-4(Spec)
Note: only 2 hours of PHY 578 are required.

Electives (3 hours)
Select courses having as prerequisite a course in the required major sequence.
Total: 39 semester hours

Physics Major: Astronomy Concentration
B.A., B.S. degrees

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
See the information at the beginning of this section.

Core Courses (36 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)
PHY 247 - Introduction to Modern Physics 4(4-0)
PHY 277 - University Physics Laboratory III 1(0-3)
PHY 312 - Introduction to Mathematical Physics 3(3-0)
PHY 322 - Intermediate Mechanics 3(3-0)
PHY 332 - Electricity and Magnetism 3(3-0)
PHY 442 - Introductory Quantum Theory 4(4-0)
PHY 450 - Thermal Physics 3(3-0)
PHY 505 - Teaching Chemistry and Physics in the Secondary School 3(3-0)
PHY 507 - Field Experience in Teaching Chemistry/Physics 1(Spec)
PHY 578 - Experimental Physics 2-4(Spec)

Electives (1 hour)
Select a minimum of one additional hour from courses having as prerequisite a course in the required major sequence.
Total: 38 semester hours

Physics Major (Teaching)
B.S. in Ed. degree, Provisional Secondary Certification

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
See the information at the beginning of this section.

Required Courses (37 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)
PHY 247 - Introduction to Modern Physics 4(4-0)
PHY 277 - University Physics Laboratory III 1(0-3)
PHY 312 - Introduction to Mathematical Physics 3(3-0)
PHY 322 - Intermediate Mechanics 3(3-0)
PHY 332 - Electricity and Magnetism 3(3-0)
PHY 442 - Introductory Quantum Theory 4(4-0)
PHY 450 - Thermal Physics 3(3-0)
PHY 505 - Teaching Chemistry and Physics in the Secondary School 3(3-0)
PHY 507 - Field Experience in Teaching Chemistry/Physics 1(Spec)
PHY 578 - Experimental Physics 2-4(Spec)

Electives (1 hour)
Select a minimum of one additional hour from courses having as prerequisite a course in the required major sequence.
Total: 38 semester hours

Chemistry-Physics Major
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

This is an interdepartmental major. Please check the index for the page number.
Minors

Physics Minor (Non-Teaching)
B.S., B.A. degrees

Required Courses (23 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)
PHY 247 - Introduction to Modern Physics 4(4-0)
PHY 277 - University Physics Laboratory III 1(0-3)
PHY 322 - Intermediate Mechanics 3(3-0)
PHY 332 - Electricity and Magnetism 3(3-0)
PHY 578 - Experimental Physics 2-4(Spec)

Total: 23 semester hours

Physics Minor (Teaching)
B.S. in Ed. degree, Provisional Secondary Certification and Provi-
sional Secondary Certification with Emotional or Cognitive Impairment
Endorsement

Required Courses (25 hours)
PHY 145 - University Physics I 4(4-0)
PHY 146 - University Physics II 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)
PHY 176 - University Physics Laboratory II 1(0-2)
PHY 231 - Electronic Instrumentation 1(0-3)
PHY 247 - Introduction to Modern Physics 4(4-0)
PHY 277 - University Physics Laboratory III 1(0-3)
PHY 322 - Intermediate Mechanics 3(3-0)
PHY 332 - Electricity and Magnetism 3(3-0)
PHY 505 - Teaching Chemistry and Physics in the Secondary
School 3(3-0)

Total: 25 semester hours
Course Descriptions

Descriptions of courses approved for the University Program appear in italic type.

Key to Designators

ACC - Accounting
AMD - Apparel Merchandising & Design
AMS - American Studies
ANT - Anthropology
ART - Art
ASL - American Sign Language
AST - Astronomy
ATR - Athletic Training
BCA - Broadcast and Cinematic Arts
BIO - Biology
BIS - Business Information Systems
BLR - Business Law and Regulation
BUS - Business
CDO - Communication Disorders
CED - Counselor Education and Personal Development
CFA - Communication and Fine Arts
CHM - Chemistry
CHN - Chinese
CNE - Credit, no equivalent
COM - Communication
CPS - Computer Science
DAN - Dance
DHA - Doctorate in Health Administration
EAD - Educational Administration
ECO - Economics
EDL - Educational Leadership
EDU - Teacher Education
EGR - Engineering
EHS - Education
ELI - English Language Institute
ENG - English Language and Literature
ENT - Entrepreneurship
ENV - Environmental Studies
ESC - Earth Science
EUR - European Studies
FIN - Finance
FLN - Foreign Language
FNS - Foods & Nutrition
FRN - French
FYE - First Year Experience
GEL - Geology
GEO - Geography
GER - German
GRK - Greek
GRN - Gerontology
HDF - Human Development & Family Studies
HEV - Human Environmental Studies
HQA - Hotel Administration (AT UNLV)
HON - Honors
HPS - Health Professions
HSA - Hospitality Services Administration
HSC - School of Health Sciences
HST - History
HUM - Humanities
IET - Industrial and Engineering Technology
IND - Interior Design
IPC - Interpersonal and Public Communication
IPR - Integrative Public Relations
IPS - International Program Studies
ITC - Information Technology
JPN - Japanese
JRN - Journalism
LAR - Liberal Arts
LAT - Latin
LDR - Leadership Studies
LIB - Library
LMT - Library, Media, and Technology
MAR - Marine Science
MBA - Master of Business Administration
MDP - Media, Design, and Production
MET - Meteorology
MGT - Management
MKT - Marketing
MLE - Middle Level Education
MSA - Master of Science in Administration
MSL - Military Science
MST - Museum Science
MTH - Mathematics
MTR - Music Theatre
MUS - Music
NSC - Neuroscience
OJB - Ojibwe
PED - Sports Instructional Program (Activity)
PES - Physical Education and Professional Courses
PHA - Physician Assistant
PHL - Philosophy
PHS - Physical Science
PHY - Physics
PSC - Political Science
PSY - Psychology
PTH - Physical Therapy
REL - Religion
RLA - Recreation and Leisure Activities
RPL - Recreation, Parks, and Leisure Services Administration
RUS - Russian
SAM - Science of Advanced Materials
SCI - Sciences
SDA - Speech Communication and Dramatic Arts
SOC - Sociology
SPR - Special Education
SPN - Spanish
SSC - Social Sciences
STA - Statistics
STA - (graduate history at University of Strathclyde)
SWK - Social Work
TAI - Theatre and Interpretation
TEC - Technology
WST - Women’s Studies

Key to Course Descriptions

Course Numbers. The level of a course is indicated by the number. Usually it is expected that students will take courses appropriate to their classification. It is particularly important for freshmen to register for courses numbered below 200.

000-099 Credits in these courses do not apply to the minimum 124 hour requirement for graduation.

100-199 Primarily for Freshmen

200-299 Primarily for Sophomores

300-399 Primarily for Juniors*

400-499 Primarily for Seniors*

500-599 Advanced Undergraduate Courses

A student who has been formally admitted to the College of Graduate Studies and who takes courses numbered 500 or higher will receive graduate credit and, with the approval of the advisor, may apply it to a degree program.

600-699 Graduate Courses. Open only to students who have been admitted to the College of Graduate Studies. Undergraduate students should use the form available from the College of Graduate Studies to apply to take a graduate course for undergraduate credit.

700-799 Graduate Courses. Open only to students who have been admitted to the College of Graduate Studies.

800 - 899 Graduate Courses. Open only to students who have been admitted to the College of Graduate Studies and who are in the third year of doctoral study or full time internship at the specialist level.

900-999 Graduate Courses. Open only to students who have been admitted to the College of Graduate Studies and who are in the fourth year of doctoral study.
Graduate courses which are subject to limitation under the policy on unspecified content or variable credit are listed in each department.

- A graduate student may include no more than two 300 or 400 level courses in the program, provided that these courses are in disciplines which are cognate to or related to the discipline in which the student is earning a degree. Prior to registering for a course at this level, the student must have received permission from the advisor, the chairperson of the department offering the course, and the Dean of the College of Graduate Studies to include such a course in the program.

Non-Degree Courses
Courses numbered (DESIGNATOR) 589 - Professional Development (1-6) do not apply to degree requirements. These courses cover selected issues designed for professional development, in-service training to meet specific staff development needs in education, business/industry, allied health, technology, and other professional settings. They are not applicable to degree requirements.

Cross-Listed Courses
Cross-listed courses are those courses identified in the course listing as “identical to” another course. Credit may not be earned in more than one of these courses.

Credit and Attendance Hours
The number of semester hours of credit in each course is indicated by the first number following the title of the course. Within the parentheses, the first number indicates the number of hours of lecture per week; the second number, the hours of laboratory per week. EXAMPLE: 4(3-2) means four hours of credit, three hours of lecture, 2 hours of laboratory.

Prerequisites
In general, only immediate prerequisites for courses are listed. Some courses listed as prerequisites may have their own prerequisites. You may need to plan more than one semester in advance when deciding which semester to take a particular course.

Students seeking to substitute prerequisite courses with equivalents or permission of instructor may do so only with departmental approval. Such substitutions are not automatic.

Variable Credit Courses
Variable credit courses are indicated by a semester-hour designation such as 1-3(Spec). (Spec) means there are special arrangements regarding the number of hours spent in class. Maximum hours which a student may earn in a variable credit course to apply toward graduation are the highest number in the semester-hour designation for the course (i.e., three hours maximum in example listed above).

Distance Learning Courses
Distance learning courses include web-based courses, learning package courses, and other courses that do not have the traditional face-to-face classroom format. Course approved for offering in a distance learning format are identified in each department’s course listing section.

Other Designation
CR/NC Credit/No Credit, see index for more information.

Italic Type Indicates the course is approved for the University Program

Courses are listed in alphabetical order by designator.

Accounting (ACC)
See the School of Accounting for more information.

ACC 101 Introduction to Accounting 3(3-0)
Basic concepts and principles of accounting. Overview of accounting cycle from a building block approach. No credit if credit has been earned in ACC 201. Does not count on major or minor in College of Business Administration.

ACC 197 Special Topics In Accounting 3(3-0)
Introductory topics in accounting. Credit counts toward total hours for graduation, but not toward a major or minor in the College of Business Administration.

ACC 201 Concepts of Financial Accounting 3(3-0)
Students gain an understanding of the accounting system used to develop financial statements. The emphasis is on interpreting financial data used in business decision making. Recommended: completion of MTH 105. This course is approved for offering in a distance learning format.

ACC 202 Concepts of Managerial Accounting 3(3-0)
Students gain an understanding of how the information provided by an accounting information system is used for managerial decision making. Prerequisite: minimum grade of C- in ACC 201. This course is approved for offering in a distance learning format.

ACC 203 Essentials of Accounting for Business 3(3-0)
Basic concepts and principles of an accounting process used to develop financial reports and make management decisions for businesses and other entities. This course is approved for offering in a distance learning format. Prerequisite: MTH 105.

ACC 204 Accounting for Not-For-Profit Entities 1(1-0)
Students gain an understanding of accounting and financial reporting for not-for-profit entities. This course is approved for offering in a distance learning format. Prerequisite: ACC 203 with a minimum grade of C.

ACC 210 Accounting Information for Entrepreneurial Decision Making 3(3-0)
Accounting concepts and practices for entrepreneurs/small business owners. Emphasis given to the use of accounting tools to solve small business problems. No credit if credit has been earned in ACC 201. Does not count on the School of Accounting major or minor. Identical to ENT 210. Credit may not be earned in more than one of these courses.

ACC 227 Accounting for Health Care Managers 3(3-0)
The use and analysis of accounting information for managerial control and decision making in health care. Basic measurement and reporting principles are also emphasized.

ACC 250 Introduction to Financial Accounting 3(3-0)
Overview of how a business functions through the generation and interpretation of accounting data. Prerequisite: Tier 1 admission to Professional Business Studies. Recommended: MTH 107 or 132 or 217.

ACC 255 Managerial Accounting & Decision Making 3(3-0)
Managerial decision-making methods using accounting and financial information and includes application of concepts to integrated study of business problems. Prerequisites: Minimum grade of C- in ACC 250; Tier 2 Admission to Professional Business Studies. Co-requisite: BIS 255.

ACC 300 Corporate Financial Reporting and Reporting Analysis 3(3-0)
Analyzes financial accounting concepts required to analyze financial statements from a management and investors viewpoint. Not available for credit to accounting majors or minor, or students with credit in ACC 302. Prerequisites: ACC 202; FIN 332; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

ACC 301 Intermediate Accounting I 3(3-0)
Study of financial accounting processes, theory and principles. Includes analysis of financial statements and financial reporting issues. This course is approved for offering in a distance learning format. Prerequisite or corequisite: ACC 202 or ACC 255.

ACC 302 Intermediate Accounting II 3(3-0)
Continuation of ACC 301. Course includes in-depth study of special reporting issues related to financial accounting. Prerequisites: ACC 301; 56 semester hours completed, and admission to Professional Business Studies or listed on signed major or minor.

ACC 311 Federal Income Taxation I 3(3-0)
Basic concepts of federal income taxation, emphasizing individual taxpayers. Tax law covering taxable and nontaxable income, deductions, basis, tax-free exchanges, capital gains and losses, tax credits, deferral of tax, and depreciation. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: ACC 202 or 255.

ACC 321 Managerial Cost Accounting 3(3-0)
Accumulation and use of cost accounting information for planning and controlling. Process, job order, and standard cost systems. Prerequisites: ACC 202 or 255; STA 282 or 382; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

Descriptions of courses approved for the University Program appear in italic type.
ACC 370 Accounting Systems and Controls 3(3-0)

The use of internal accounting control theory to evaluate and improve accounting systems. Enterprise resource planning and electronic commerce topics are also addressed. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Prerequisites or co-requisites: ACC 302 and 321.

ACC 405 The Accounting Profession and Contemporary Accounting Issues 3(3-0)

Background on rule-making in accounting; recent pronouncements of regulatory and professional accounting organizations; evolving areas in accounting. Prerequisites: ACC 302; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 489 Accounting Internship/Co-Op 1-3(Spec)

Full time, on-the-job work experience for one or more semesters in industry, government, or public accounting arranged through departmental internship/co-op supervisor. CR/NC only. Prerequisites: 6-12 hours of accounting depending upon the program entered; overall GPA of 3.0; accounting GPA of 3.2; acceptance by program supervisor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 491 Independent Studies 1-3(Spec)

Directed reading or research on an approved topic. Not more than 3 credits for ACC 491 may count toward accounting major. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 501 Advanced Accounting 3(3-0)

Intercompany investments and consolidated statements, purchases and pooling of interests, segment reporting, interim reporting, partnerships, foreign operations, and fund accounting. Prerequisites: completion of ACC 301 and ACC 302 with average of 2.5 GPA for both courses or permission of chairperson; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

ACC 511 Federal Income Tax II 3(3-0)

Formation, operation, distributions, redemption, dissolution, and liquidation of corporations, partnerships, Subchapter S corporations and personal holding companies; accumulated earnings tax; tax shelter investments. Prerequisites: ACC 311 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 517 Federal Estate and Gift Taxation 3(3-0)

Concentrated study of federal taxation of death transfers and gratuitous lifetime transfers including preparation of decedents final income tax return. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 521 Managerial Cost Control Analysis 3(3-0)

Principles and techniques of accounting data analysis and profit planning, measurement, evaluation, and control for management. Prerequisites: ACC 321; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MGT 340.

ACC 524 Budgeting: Planning and Control 3(3-0)

Intensive study of budgeting for both profit and non-profit organizations. Prerequisites: ACC 321, FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 531 Auditing and Assurance Services 3(3-0)

A study of assurance services offered by professional services firms with major emphasis on the traditional auditing concepts and procedures. Prerequisites: signed major authorization in accounting; completion or concurrent enrollment in ACC 370; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 533 Auditing Procedures and Statistical Sampling 3(3-0)

Auditing programs, work paper techniques, procedures, and statistical sampling. Prerequisites: ACC 331 with a grade of B- or better; BIS 221; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 535 EDP Auditing and Control 3(3-0)

EDP auditing including controls, applications, software, systems, and service center records. Prerequisites: ACC 531, BIS 221; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 536 Forensic Accounting 3(3-0)

The study of financial fraud and the methods of fraud detection, investigation, and prevention. Prerequisites: 75 semester hours completed; admission to Professional Business Studies or graduate status.

ACC 543 Fund Accounting 3(3-0)

Accounting principles and procedures for governmental units and various non-profit organizations. Prerequisites: ACC 302 and permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 550 Internal Auditing 3(3-0)

Emphasis on internal auditing as an internal control. Standards, ethics, concepts, techniques, and reporting practices relevant to financial, compliance and operational auditing. Prerequisites: signed accounting major or minor or permission of instructor; 56 hours completed; admission to Professional Business Studies.

ACC 570 Strategic Accounting System Development and Implementation 3(3-0)

The strategic design and implementation of accounting systems for competitive advantage. Topics include enterprise resource planning, business process re-engineering, change management and semantic object modeling. Prerequisites: ACC 301, ACC 302, ACC 321, ACC 370; 56 semester hours completed and admission to Professional Business Studies; or listed on signed major or minor, or permission of the MBA Director.

ACC 597 Special Topics In Accounting 1-3(Spec)

Advanced topics in accounting. Not more than 3 credits for 597 count toward accounting major, minor, or concentration. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 605 Accounting Theory 1(3-0)

ACC 689 Accounting Internship 3(Spec)

ACC 711 Tax Seminar 3(3-0)

ACC 721 Managerial Accounting Seminar 3(3-0)

ACC 730 Accounting and Business Information Systems Seminar 3(3-0)

ACC 731 Auditing Seminar 3(3-0)

ACC 741 Fund Accounting Seminar 3(3-0)

ACC 791 Independent Studies 1-3(Spec)

ACC 797 Special Topics In Accounting 1-3(Spec)

ACC 799 Special Topics In Accounting 1-3(Spec)

American Studies (AMS)

AMS 250 Proseminar in American Study 3(3-0)

Introductions to the concept, history, and themes of interdisciplinary scholarship, and their application to the study of American culture. Required of all American Studies majors.

AMS 450 Seminar in American Studies 6(6-0)

Focus setting for the integrative processes of interdisciplinary scholarship. Focus is upon a period of crisis in American life or a persistent problem which has engaged the lives of Americans. This is a two semester course. First-semester grade deferred. Open only to American Studies majors. Prerequisite: AMS 250.

Anthropology (ANT)

See the Department of Sociology, Anthropology and Social Work for more information. Note: Prerequisites for any courses in anthropology may be waived by permission of the Department Chair and the instructor.

ANT 101 Social Justice in a Global Society 3(3-0)

Introduction to key concepts in global social justice, foundational human rights instruments and processes, contemporary manifestations of social injustice, and the role of social action. Identical to SOC 101; credit may not be earned in more than one of these courses. (Group IV-A)

ANT 170 Cultural Anthropology 3(3-0)

Comparative study of contemporary cultures, including methods and theories employed. The impact of globalization on cultural diversity. (Group III-B)

ANT 171 Human Origins: Introduction to Physical Anthropology 3(3-0)

Introduction to human and primate evolution, and the origin of human predatory variations. (Group II-A)

ANT 173 Laboratory in Physical Anthropology 1(0-2)

Laboratory practicum surveying the techniques and procedures by which evidence is developed and analyzed in studying human evolution, both fossil and on-going. Satisfies Group II laboratory requirement. Prerequisite: ANT 171 or concurrent enrollment. (Group II-A)
ANT 174 Introduction to Prehistoric Archaeology: From Stone Age to Civilization 3(3-0)
The development of culture in Africa, Asia, and Europe to the rise of urban civilizations. How archaeological evidence is obtained, analyzed, dated, and interpreted.

ANT 175 Archaeology of the Americas 3(3-0)
Archaeology of the Americas from the earliest peopling of the Western Hemisphere to the rise of civilizations such as the Maya, Aztec, and Inca. (Group IV-B)

ANT 200 Education and Culture 3(3-0)
Process of cultural learning from infancy through adolescence in non-Western societies and American minority groups. (Group IV-A)

ANT 240 Archaeological Field and Laboratory Techniques 1-4(Spec)
Practical instruction in field survey and excavation; description, classification, analysis, and documentation of materials in the laboratory. Prerequisites: ANT 174 or 175, or permission of instructor.

ANT 320 North American Indian Cultures 3(3-0)
Diversity of North American Indian cultures, their experiences of colonization and culture change, and their contributions to American and global culture. (Group IV-C)

ANT 321 Cultures of Latin America 3(3-0)
Indigenous, European, and African origins and contemporary diversity of cultures of Latin America. (Group IV-B)

ANT 322 Cultures of Africa 3(3-0)
Indigenous cultures of sub-Saharan Africa; their emergence, development, and contemporary diversity; impact of sociocultural change. (Group IV-B)

ANT 324 Cultures of the South Pacific 3(3-0)
Traditional cultures and recent social change in Polynesia, Melanesia, and Micronesia. Human settlement of the islands, ecology, evolution of political systems, and effects of colonial economies are stressed. (Group IV-B)

ANT 326 Chinese Societies 3(3-0)
Culture and social life in prerevolutionary China and Taiwan and post-revolutionary (Communist) China. (Group IV-B)

ANT 340 South American Archaeology 3(3-0)
Archaeology of South America. Emphasis on the Central Andean region. Introduction to documentation and interpretation of cultural developments from earliest human occupations to European conquest. Prerequisite: ANT 175.

ANT 342 Forensic Anthropology 4(3-2)
Lectures and laboratory training in forensic identification and analysis of human skeletal remains for utilization by criminal justice authorities and missing persons bureaus. Prerequisites: ANT 171, 173 or BIO 110. Recommended: Or permission of instructor.

ANT 344 Michigan Archaeology 3(3-0)
Michigan archaeology from the first peopling of the area to historic times. Changing adaptive patterns examined in the context of the Great Lakes region and North America generally. Prerequisite: ANT 175 recommended.

ANT 347 Human Evolution 3(3-0)
Fossil evidence of human evolution and its analysis within a theoretical framework of ongoing evolutionary forces and basic phylogenetic principles. Prerequisite: ANT 171 or permission of the instructor.

ANT 351 The Race Concept and Human Variation 3(3-0)
Analysis and interpretation of human physical variation (genetic) to permit an examination of historical and modern evolutionary and "scientific" racism. Prerequisites: ANT 171 and BIO 101 recommended.

ANT 356 Primate Behavior 3(3-0)
Applying principles of evolution to primate behavior with emphasis on effects of ecology on social relations and group organizations. Prerequisites: ANT 171 or BIO 101 recommended. (Group IV-A)

ANT 365 Current American Indian Issues 3(3-0)
Current social, economic, political, and cultural issues affecting American Indians; social movements of resistance and change. (Group IV-A)

ANT 368 Hispanic Cultures in the U.S. 3(3-0)
Hispanic cultural diversity viewed in the context of the larger U.S. society, including Anglo and Latin analyses of contributions and the role of racism in defining this group. (Group IV-C)

ANT 370 Global Environmental Issues 3(3-0)
Social and cultural dimensions of global population issues, food and energy policies, destruction of indigenous lifeways, roles of multinational organizations, environmental racism, and environmental movements. Identical to SOC 370; credit may not be earned in more than one of these courses.

ANT 386 Special Topics in Anthropology 1-12(Spec)
Consideration of subject matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

ANT 426 Method and Theory in Archaeology 3(3-0)
Nature of archaeological evidence, methods of analysis, theories and problems in interpretation and explanation of the human past. This course given in alternate years in rotation with ANT 451. Prerequisite: ANT 174 or 175.

ANT 430 Applied Anthropology 3(3-0)
The application of basic research and methods in the subfields of anthropology to address contemporary socio-cultural problems related to human diversity across ethnicity, "race," class, and gender. Prerequisites: ANT 170, 171, and 175.

ANT 451 History of Anthropological Thought 3(3-0)
Development of anthropological theory. Key persons, concepts, and schools of thought. This course given in alternate years in rotation with ANT 426. Prerequisites: ANT 170 and ANT 171, or permission of instructor.

ANT 457 Globalization and Society 3(3-0)
Effects of the global economy on the division of labor, transnational migration, social inequality, ethnic identities, gender relations, and other aspects of social organization. Identical to SOC 457; credit may not be earned in more than one of these courses. Prerequisites: SOC 100 or 201 or 221 or ANT 170.

ANT 459 Anthropology of Religion 3(3-0)
Theories of the origins, nature, and functions of religion. Prerequisite: ANT 170 recommended.

ANT 465 Senior Seminar in Anthropology 3(3-0)
Current issues in anthropology as approached from the various perspectives of the sub-disciplines. Prerequisite: 12 hours of anthropology.

ANT 498 Independent Studies In Anthropology 1-12(Spec)
Directed reading or research on an approved topic. Open to students not on academic probation. Prerequisite: Permission of instructor and department chairperson.

ANT 500 Field School in Archaeology 3-6(Spec)
Intensive practical experience in field survey, excavation, and laboratory analysis of resulting materials. Prerequisite: ANT 174 or ANT 175 or ANT 240, or permission of instructor.

ANT 506 Comparative Cultural Systems 3(3-0)
Explores theories of cultural development, with particular emphasis on urban and post-industrial cultures. Students investigate cultures different from their own. Identical to SOC 506. Credit may not be earned in more than one of these courses. Prerequisites: Introductory anthropology and/or sociology course.

ANT 520 Global Perspectives in Health and Illness 3(3-0)
Transcultural variations in conceptions of health and healing, cultural practices that encourage or inhibit disease, and the effects of social institutions on health and illness. Prerequisites: 6 hours of cultural anthropology and/or sociology; or permission of instructor.

ANT 531 Capstone Experience in Global Justice 3(3-0)
Capstone course synthesizes course work on the issues of global social justice/injustice. Explores roots, consequences, types, policy approaches, and strategies for pursuing global justice. Identical to SOC 531. Credit may not be earned in more than one of these courses. Prerequisites: SOC/ANT 101; 15 hours in the Global Justice Minor; Completion of the Service Learning component of the Global Justice Minor; and Approval of the Global Justice Advisor. May be taken by SOC or ANT Majors with the approval of the Global Justice Advisor. Or, graduate standing.

ANT 588 Special Topics in Anthropology 1-10(Spec)
Consideration of subject matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

ANT 590 Gender, Culture & Society 3(3-0)
Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to SOC 590 and WST 590. Credit may not be earned in more than one of these courses. (Not open to students who have completed ANT 490 or WST 490.) Prerequisites: 6 hours of anthropology and/or sociology and/or women's studies, or permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

ART 299

ART (ART)
See the Department of Art for more information.

ART 105 Drawing I 3(0-6)
Introduction to drawing media and techniques with a focus on drawing from observation and to formal principles of composition and conceptual inventiveness.

ART 110 Ceramics I: Introduction to Handbuilding 3(0-6)
This is the first course in a two-part introductory series. Students will learn handbuilding ceramic techniques, concepts, historic precedents and contemporary examples.

ART 115 Design 3(0-6)
Introduction to form and its relation to the two-dimensional surface. Focus on the elements and principles of design, creative problem solving and visual literacy.
ART 117 Introduction to Contemporary Issues in Art 3(0-0)
Introduction to the aesthetic theory and visual language of Modernism, Post-Modernism, and Post-Postmodernism.

ART 118 Design II 3(0-6)
Introduction to three and four-dimensional form and space. Focus on the elements and principles of design, creative problem solving and visual literacy.

ART 122 Color and Composition 3(0-6)
An exploration of the theories and principles of color and composition.

ART 126 Introduction to the Visual Arts 3(3-0)
To develop an aesthetic awareness, appreciation, and understanding of the visual arts through an introduction to media, formal analysis, and interpretation. (Group I-B)

ART 130 Painting I 3(0-6)
An introduction to painting with the exploration of media, techniques, and the concepts of space, form, and color.

ART 135 Introduction to Graphic Design 3(0-6)
An introduction to the theory and practice of communication design. An emphasis is placed on technical and aesthetic fundamentals. Prerequisites: None.

ART 140 Photography I 3(0-6)
Introduction to basic technical skills of photography as a fine art.

ART 150 Printmaking I 3(0-6)
An introduction to intaglio and lithography printmaking techniques as a fine art. Prerequisite: ART 105.

ART 160 Sculpture I 3(0-6)
An introduction to the basic tools, techniques, processes, materials, history and concepts of traditional and contemporary sculpture.

ART 170 Weaving/Fiber Design I 3(0-6)
An introduction to hand weaving on a frame loom, and off-loom techniques which may include basketry, fabric collage, felting, papermaking, and dyeing. Prerequisite: None.

ART 185 Introduction to Western Art, Part I 3(3-0)
History of Western art from prehistoric through medieval periods. Roots of Western culture as seen in differing artistic styles and attitudes. (Group I-A)

ART 205 Drawing II 3(0-6)
A concentration in experimental media, techniques, spatial relationships, and conceptual processes of drawing. Prerequisites: ART 105, ART 115.

ART 210 Ceramics II: Introduction to Pottery 3(0-6)
This is the second course in a two-part introductory series. Students will learn wheel thrown ceramic techniques, concepts, historic precedents and contemporary examples. Prerequisite: ART 110.

ART 211 Raku Workshop 3(0-6)
For beginning and advanced students, involving kiln building, firing, glazing, as well as forming. Offered only when weather permits working outdoors.

ART 216 Introduction to Figure Drawing 3(0-6)
Introduction to the study of the human figure in drawing with emphasis on three-dimensional representation, proportions, and anatomical structure. Prerequisite: ART 105.

ART 230 Painting II 3(0-6)
Continuation of the aims of Painting I, with emphasis on personal development. Prerequisite: ART 105.

ART 235 Logo and Identity Design 3(0-6)
A continuation of ART 135, with emphasis on development of conceptualization and visualization skills. The course focuses on printed materials that apply to identity systems. Prerequisites: ART 135.

ART 239 Digital Imaging I 3(0-6)
Classroom and lab work emphasizing photography and the fundamentals of digital image making. This class includes input, image adjustments, manipulations, output, and presentation. Prerequisite: ART 140.

ART 240 Photography II 3(0-6)
Focusing on the practice, history and techniques of photography with emphasis on aesthetics and content, this course will include lectures, discussions, demonstrations and assignments. Prerequisite: ART 140.

ART 245 Art for Preschool Children 3(3-0)
Focus is on developmental stages in art of the preschool child. Approximately half the time is devoted to creative activities with art media.

ART 250 Printmaking II 3(0-6)
A continuation of Printmaking I with additional emphasis on conceptual development and more advanced printing methods within fine art printmaking. Prerequisites: ART 150.

ART 260 Making Multiples: Sculpture 3(0-6)
A continuation and expansion of the skills developed in Sculpture I. This course focuses on the development and the creation of sculptural multiples. Prerequisite: ART 160.

ART 270 Fiber Design II 3(0-6)
Introduction to the floor loom and continuing off-loom techniques which may include basketry, fabric collage, felting, papermaking, or dyeing. Prerequisite: ART 170.

ART 285 Introduction to Western Art, Part II 3(3-0)
History of Western art from the Renaissance to the twentieth century. Relations of form and content to cultural attitudes. Unique contributions of major artists. (Group I-A)

ART 297 Special Studies 1-6(Spec)
A general introduction to specialized topics, techniques, materials. Studio and/or scholarly areas.

ART 305 Drawing III 3(0-6)
Advanced work relating to Drawing I and II with emphasis on contemporary trends in drawing and a more mature conceptual expression. Prerequisite: ART 205.

ART 310 Ceramics III: New Traditions in Ceramics 3(0-6)
Students’ creative work will shift emphasis from exercises in form and traditional glazing to exploring contemporary issues and new traditions in clay. Prerequisite: ART 210.

ART 316 Intermediate Figure Drawing 3(0-6)
Continuation of figure drawing at the intermediate level. Study of proportions and anatomy leading to competency in defining three-dimensional and spatial aspects of the figure. Prerequisite: ART 216.

ART 318 Aesthetics 3(3-0)
A philosophical understanding of art and its development.

ART 319 Art Criticism 3(3-0)
The description, analysis, interpretation, and evaluation of visual art. (Group I-B)

ART 330 Painting III 3(0-6)
Emphasis on individual development and refinement of personal expression in various approaches to painting. Prerequisite: ART 230.

ART 331 Figure Painting 3(0-6)
Exploration of problems of representation, expression, and composition of the human figure in oils and acrylics. Prerequisites: ART 105, ART 130, ART 216.

ART 334 Watercolor Painting 3(0-6)
Exploration of transparent watercolor techniques including dry-brush and mixed-media, and development of an understanding of paper surfaces and pigment compositions. Prerequisites: ART 105, ART 115, ART 130, or permission of instructor.

ART 335 Design Bureau 3(0-6)
Investigations into the conception and production of communication graphic solutions for real-world clients in a group or “bureau” pre-professional studio setting. Prerequisites: ART 140, 235, 349; signed BFA with a concentration in graphic design.

ART 336 Illustration 3(0-6)
Basic methods of black and white and color media illustration techniques for the graphic designer. Prerequisites: ART 105, ART 115, ART 130, ART 135, ART 140, or permission of instructor.

ART 339 Digital Imaging II 3(0-6)
Classroom and lab work emphasizing photography and advanced digital image making. Prerequisite: ART 239.

ART 340 Photography III 3(0-6)
Creative work for the advanced student including color printing, use of view cameras and some non-silver processes. Prerequisites: ART 239, ART 240.

ART 341 History of Photography 3(3-0)
Introductory study of the history of photography from the advent of the camera obscura in the 1550s to the present.

ART 342 Art in the Elementary School Grades K-4 3(3-0)
An art methods class for the art education major covering developmentally appropriate curricula and content for the elementary school student. Prerequisites: ART 105, ART 115, ART 118, and admission to the Teacher Education Program or permission of instructor.

ART 344 Art in the Middle School Grades 5-8 3(3-0)
An art methods class for the art education major covering developmentally appropriate curricula and content for the middle school student. Prerequisites: ART 105, 115, 118, 343, and admission to the Teacher Education program.

ART 345 Art in the Elementary School 3(3-0)
Art for the elementary child; its relationship to curricula and general development of the child will be investigated through lecture, slides, and team teaching experience. Prerequisites: Admission to the Teacher Education Program or permission of instructor.

ART 346 Secondary School Art and Mid-Tier Observation 3(2-2)
Similar to ART 345, but applicable to the secondary grades. Students enrolled are required to put in a maximum of 2 hours per week in Mid-tier observation. Prerequisite: Admission to the Teacher Education program or permission of the instructor.

Descriptions of courses approved for the University Program appear in italic type.
ART 349 Typography 3(0-6)
An intensive survey of the history and application of letterform. Prerequisite: ART 135.

ART 350 Printmaking III 3(0-6)
A continuation of Printmaking II with further development of conceptual development and the advanced printing methods within line art printing. Prerequisites: ART 250.

ART 358 Web Design I 3(0-6)
Web design as it relates to graphic design. Prerequisites: ART 349; signed BFA with a concentration in graphic design.

ART 360 Figure Sculpture 3(0-6)
A continuation and expansion of the basic skills of sculpture. This course focuses on the development and the creation of figurative sculpture. Prerequisite: ART 160.

ART 361 4-D Sculpture 3(0-6)
An investigation of the contemporary practices, history, and concepts of 4-D sculpture, combining personal research of new techniques, processes, and materials with past experience. Prerequisite: ART 160.

ART 363 Design: The Interface of Art and Industry 3(3-0)
Survey of the development of the applied arts in material culture from the invention of movable type through the twentieth century. Prerequisites: Sophomore standing or above. (Group IV-A)

ART 366 Contemporary Design Issues 3(3-0)
A survey of the ethical, conceptual, and stylistic trends driving contemporary design theory and practice. Prerequisites: Sophomore standing or above.

ART 370 Fiber Design III 3(0-6)
Creating with fiber on and off the loom. Experiences in two- and three-dimensional form. Prerequisite: ART 270.

ART 371 Papermaking 3(0-6)
Introduction to techniques and aesthetics for making handmade paper for 2-D and 3-D forms including basic bookbinding. Prerequisite: ART 118 or ART 270.

ART 375 Surface Design on Fabric 3(0-6)
The application of pattern and color with dyes and pigments through silkscreen, batik, resist tie-dye, and painting on fabric. Prerequisites: ART 115 or ART 270, or permission of instructor.

ART 380 Greek Art and Architecture 3(3-0)
The art and architecture of ancient Greece from the Geometric to Hellenistic periods. Prerequisites: completion of 26 credit hours. Identical to WST 382. Credit may not be earned in more than one of these courses.

ART 381 Early Christian and Byzantine Art 3(3-0)
Art of the early church. Byzantine art from the reign of Theodosius I to the fall of Constantinople in the fifteenth century.

ART 382 Women and Art 3(3-0)
The development of women's identities as artists, patrons, viewers, and subjects of representation, their changes historically, and their relationship to definitions of art. Identical to WST 382. Credit may not be earned in more than one of these courses.

ART 383 Modern Architecture 3(3-0)
The history of building styles, technologies, and ideas in Europe and the United States from the late 18th century to the present.

ART 384 Arts of Non-European Traditions 3(3-0)
An introduction to the visual arts of non-European cultures. Arts of Africa, Oceania, Asia and the Americas. Relations between arts, philosophies, and ways of life will be discussed. Prerequisites: 26 semester hours completed.

ART 385 Art in the Twentieth Century 3(3-0)
Study and analysis of the major movements of the twentieth-century visual arts and their philosophies with emphasis on the first half of the century. Prerequisite: ART 285.

ART 386 American Art from the Colonial Period to 1913 3(3-0)
A history of American painting, sculpture, architecture, and decorative arts from the colonial period to 1913. An analysis of major artists and regional styles. Prerequisite: completion of 26 credit hours.

ART 397 Special Studies 1-6(Spec)
In-depth consideration of specialized topics, techniques, and material in studio, scholarly areas.

ART 405 Advanced Drawing 3(0-6)
Exploring more advanced concepts in drawing techniques, spatial relationships, and personal expression. Prerequisites: ART 105, ART 216.

ART 410 Ceramics IV 3(0-6)
This course stresses individual studio problems and portfolio development. Students will explore concepts relating to forms requiring specific methods of construction, glazing, and firing. Prerequisite: ART 310.

ART 416 Advanced Figure Drawing 3(0-6)
Continuation of figure drawing experience at the advanced level. Exploration of figure dynamics, and the application of the theories of foreshortening, and creative composition. Prerequisite: ART 316.

ART 430 Painting IV 3(0-6)
Independent inquiry in painting where the mode of expression is consistent. Regular consultation with instructor is required. Prerequisite: ART 330.

ART 435 Professional Design Practices 3(0-6)
Development of print production and portfolio skills in preparation for employment in the communication design field. Prerequisites: ART 335, signed BFA with a concentration in graphic design.

ART 436 Graphic Design Internship 3(Spec)
Supervised internship of 180 hours in a graphic design firm or related field designed to complement classroom learning. Prerequisites: ART 235, ART 349, Minimum of 56 credit hours completed and permission of instructor.

ART 437 Designing for the Web 3(0-6)
Mastery of design principles as applied to web design. Prerequisites: ART 335, ART 435 concurrently or permission of instructor.

ART 438 Motion Graphics 3(0-6)
Introduction to computer- and animation technology and application. Prerequisites: ART 235, 349; signed BFA with a concentration in graphic design.

ART 440 Photography IV 3(0-6)
An individualized studio experience for the advanced photography student, emphasizing project-based assignments, independent work and critiques culminating in a portfolio of work. Prerequisite: ART 340.

ART 445 Special Problems in Art Education 2(1-2)
Independent study of individual problems in art education.

ART 446 Visual Arts and Aesthetic Education 3(3-0)
Exploration of the developmental methods and growth of aesthetic education in culture as it relates to secondary school curricula. Prerequisites: Admission to teacher education; ART 346.

ART 449 Advanced Typography 3(0-6)
Advanced study in the theory and development of letterform. Prerequisites: ART 349, signed BFA with a concentration in graphic design.

ART 450 Printmaking IV 3(0-6)
A continuation of Printmaking III, with emphasis on conceptual development and advanced printing methods. Development of a fine art print portfolio. Prerequisite: ART 350.

ART 454 Art Workshop 3(0-6)
Workshop experience in one or more of the following studio areas: ceramics, design, drawing, painting, photography, printmaking, sculpture, graphic design, and fiber design.

ART 458 Web Design II 3(0-6)
Advanced web design as it relates to graphic design. Prerequisites: ART 358, signed BFA with a concentration in graphic design.

ART 460 Contemporary Bronze Casting 3-6(Spec)
ART 460 (beginning and advanced) is an advanced sculpture course focusing on the development of skills and the creation of bronze casting. Prerequisite: ART 280.

ART 461 Light Metals Sculpture 3(0-6)
A continuation and expansion of the basic skills of metal sculpture. This course focuses on the development and the creation of sculpture utilizing light metals. Prerequisite: ART 260.

ART 470 Fiber Design IV 3(0-6)
A studio experience developing a greater sensitivity to fibers on and off the loom. Prerequisite: ART 370.

ART 471 BFA Examination 3(3-0)
Capstone experience for the B.F.A. art student, including a thesis exhibition, an artist's statement, talk and final portfolio; and strategies for a successful post-graduate career. Must be taken in the last semester prior to graduation. Prerequisites: Signed BFA in Art and senior standing.

ART 472 Graphic Design Capstone Experience 3(3-0)
A graphic design capstone experience focusing on the development of a personal design philosophy, the senior project exhibition, a group capstone catalogue, and a portfolio critique by an external assessor. Must be taken in one of the last two semesters prior to graduation. Prerequisites: ART 435; signed BFA with concentration in graphic design; and senior standing.

ART 480 Roman Art and Architecture 3(3-0)
The art of Rome and the Roman world from earliest times to Constantine the Great. Prerequisite: ART 185 or ART 380, or permission of the instructor.

ART 481 Western Medieval Art 3(3-0)
Art of western Europe from the fall of Rome to 1500. Origins of Romanesque art and dissemination of the French Gothic style throughout Europe.

ART 482 Italian High Renaissance Art 3(3-0)
An intensive examination of the art and architecture of High Renaissance Italy with emphasis on the works of Leonardo, Bramante, Michelangelo, and Raphael. Prerequisites: ART 285 or permission of instructor.

ART 483 Nineteenth Century European Painting 3(3-0)
Stylistic evolution of nineteenth century European painting as viewed against its political and cultural background. Neo-Classicism, Romanticism, Realism, Impressionism, Post-Impressionism, the Pre-Raphaelites, the Symbolists, and Art Nouveau. Prerequisite: ART 285.

Descriptions of courses approved for the University Program appear in italic type.
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American Sign Language (ASL)

See the Department of Communication Disorders for more information.

ASL 100 Introduction to the Deaf Community and Deaf Culture (3-0)
An introduction to the audiological, social, linguistic, and cultural aspects of Deafness and the Deaf Community; basic communication in American Sign Language.

ASL 101 American Sign Language, Level I (3-0)
Basic receptive and expressive American Sign Language (ASL) vocabulary and grammatical structure; fingerspelling; and conversational behavior. Basic understanding of Deaf Culture and ASL linguistics.

ASL 102 American Sign Language, Level II (3-0)
Basic receptive and expressive ASL vocabulary, grammar, fingerspelling, and conversational behavior. Basic understanding of Deaf Culture and ASL linguistics. A continuation of ASL 101. Prerequisite: ASL 101 or permission of instructor.

ASL 201 American Sign Language, Level III (3-0)
Intermediate conversational American Sign Language. Beginning development of intermediate-level receptive and expressive skills. Continued consideration of Deaf Culture and ASL linguistics. Prerequisite: ASL 102 or permission of instructor.

ASL 202 American Sign Language, Level IV (3-0)
Further development of intermediate-level receptive and expressive ASL vocabulary, grammar, fingerspelling, and conversational behavior; Deaf Culture and ASL linguistics. Continued consideration of Deaf Culture and ASL linguistics. Prerequisite: ASL 201 or permission of instructor.

ASL 390 Sociocultural History of the American Deaf Community (3-0)
Social and cultural aspects of persons who self-identify as members of the American Deaf community, including history, patterns of social interaction, folklore, history, and art. Prerequisites: ASL 100, ASL 202; or permission of instructor.

ASTRONOMY (AST)

See the Department of Physics for more information.

AST 101 Astronomy (3-0)
An overview of modern astronomy which illustrates the basic physical principles and methodologies underlying all the sciences. Topics include the solar system, stars, planetary systems, galaxies and cosmology. This course is approved for offering in a distance learning format. (Group II-A)

AST 111 Introduction to Astronomical Observations (1-0-2)
The observation and interpretation of the sky using the naked eye, small telescopes, visual and photographic equipment, and globes and star maps. Supplements AST 111 by providing observational experience. Satisfies Group II laboratory requirement. Pre- or corequisite: AST 111. This course is approved for offering in a distance learning format. (Group II-A)

AST 260 General Astronomy I (3-0)
A mathematical treatment of modern astronomy for majors/minors in the sciences. Coordinate systems, astronomical instruments, time, moon and eclipses, earth as a planet, other solar system objects. Prerequisite: PHY 145 or permission of instructor.

AST 261 General Astronomy II (3-2)
A continuation of AST 260. Stellar astronomy, interstellar matter, galactic structure, galaxies, quasars, cosmology. Prerequisite: AST 260 or permission of instructor.

AST 311 Vistas in Astronomy (3-0)
Descriptive treatise of astronomical topics of most interest. Typical topics include spacecraft results, extraterrestrial life, astroarchaeology, UFOs, pulsars, black holes, quasars, cosmology. Prerequisite: AST 111 or AST 260.

AST 511 Astronomy for Teachers (3-2)
Teaching astronomy in the elementary, middle, and secondary schools. Approaches subject matter, student activities, demonstrations, experiments, sources of astronomical materials, planetarium utilization. Prerequisite: AST 111.

AST 560 Observational Astronomy 4(3-2)
Celestial mechanics, astronomical instruments, and the techniques of astronomical direct imaging, photometry, and spectroscopy. Prerequisite: PHY 322; AST 260 or AST 261; or permission of the instructor.

AST 563 Astrophysics 3(3-0)
Stellar atmospheres, stellar interiors, interstellar matter and topics of current interest. Prerequisites: AST 261; PHY 332; or permission of instructor.

AST 580 Special Topics in Astronomy 1-9(Spec)
Topics in astronomy or astrophysics not ordinarily covered in regular courses. Prerequisites: As specified in course syllabus.

AST 590 Independent Study 1-4(Spec)
Individual study in an area not covered in regular courses. Prior permission of the instructor must be obtained. Prerequisites: AST 260 and permission of instructor.

Athletic Training (ATR)

See the Department of Physical Education and Sport for more information.

ATR 180 Introduction to Athletic Training (2-0)
An introduction to the profession of athletic training and the role of certified athletic trainers as health care providers.

ATR 190 Fundamentals of Injury Prevention (2-0)
Identification of injury risk factors encountered by athletes and others involved in physical activity, and strategies to plan an injury prevention program will be investigated.

ATR 282 Anatomical Aspects of Athletic Training (3-0)
The role and application of anatomy to the evaluation and assessment process. Prerequisite: HSC 211 or HSC 214.

ATR 283 Athletic Training Directed Observation 1(Spec)
Clinical experiences and observations designed to enhance knowledge and skills of athletic trainers in the delivery of health care to athletes. CR/NC only. Prerequisite: ATR 282.

ATR 301 Athletic Training Clinical I 1(Spec)
Clinical training experiences and observations designed to enhance knowledge and skills of athletic trainers in the delivery of health care to athletes. CR/NC only. Prerequisite: ATR 310.

ATR 302 Athletic Training Clinical II 1(Spec)
Clinical training experiences and observations designed to enhance knowledge and skills of athletic trainers in the delivery of health care to athletes. CR/NC only. Prerequisite: ATR 310.

ATR 380 Athletic Training Assessment I (2-0)
Introduction to the basic knowledge, skills and values to plan, implement, and evaluate the efficacy of a treatment, and rehabilitation/reconditioning plan. Prerequisites: selection to the Athletic Training/Sports Medicine program. Co-requisites: ATR 311, ATR 380, ATR 381.

ATR 390 Athletic Training Assessment II (2-0)
Advanced clinical practice. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: selection to the Athletic Training/Sports Medicine program. Co-requisites: ATR 311, ATR 380, ATR 381.

Astronomy (AST)

See the Department of Physics for more information.

AST 111 Astronomy (3-0)
An overview of modern astronomy which illustrates the basic physical principles and methodologies underlying all the sciences. Topics include the solar system, stars and stellar systems, galaxies and cosmology. This course is approved for offering in a distance learning format. (Group II-A)

AST 112 Introduction to Astronomical Observations (1-0-2)
The observation and interpretation of the sky using the naked eye, small telescopes, visual and photographic equipment, and globes and star maps. Supplements AST 112 by providing observational experience. Satisfies Group II laboratory requirement. Pre- or corequisite: AST 111. This course is approved for offering in a distance learning format. (Group II-A)

AST 260 General Astronomy I (3-0)
A mathematical treatment of modern astronomy for majors/minors in the sciences. Coordinate systems, astronomical instruments, time, moon and eclipses, earth as a planet, other solar system objects. Prerequisite: PHY 145 or permission of instructor.
A TR 383 Athletic Training Therapeutics II 3(2-2)
Continuation of ATR 381, Athletic Training Therapeutics I. Advanced knowledge, skills and values of physical agents and exercise techniques. Prerequisites: ATR 380 and ATR 381. Co-requisite: ATR 382.

A TR 394 Pharmacology for Health Professions 2(2-0)
Basic pharmacological principles of therapeutic medications, both prescription and those available over-the-counter, and how they assist with treating symptoms associated with illness and injury. Prerequisites: 56 semester hours completed; HSC 215 or BIO 392.

A TR 430 Athletic Training Clinical III 1(Spec)
Third clinical education course integrating clinical decision-making and clinical practice. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: ATR 320. Co-requisite: ATR 431.

A TR 431 Cultural Considerations in Athletic Training 1(Spec)
Cultural behaviors and issues confronting the athletic trainer. Prerequisites: ATR 320. Co-requisite: ATR 430.

A TR 440 Athletic Training Clinical IV 1(Spec)
Fourth clinical education course integrating clinical decision-making and clinical practice. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: ATR 430. Co-requisite: ATR 441.

A TR 441 Professional Development 1(Spec)
The course content and activities will prepare participants for athletic training internships involving a travel component. Prerequisites: ATR 320. Co-requisite: ATR 440.

A TR 480 Health Care Administration in Athletic Training 3(3-0)
Prepares athletic training students to develop and administer programs and facilities that provide health care services to athletes and other physically active individuals. Prerequisites: ATR 382 and ATR 383.

A TR 481 Athletic Training Practicum 3(Spec)
A capstone experience applying previous didactic and clinical knowledge in a practical, "on-the-job" environment. Can only be taken in conjunction with a student-teaching experience. Prerequisite: ATR 440.

A TR 482 Athletic Training Internship 12(Spec)
A capstone experience applying previous didactic and clinical knowledge in a practical, "on-the-job" environment. Prerequisite: ATR 440.

A TR 582 Special Topics 1-3(Spec)
Exploration of special topics in the field of Athletic Training/Sports Medicine and other health-related areas. May be repeated to a maximum of 3 hours. Identical to HPS 582. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: ATR 430 and permission of instructor.

Broadcast and Cinematic Arts (BCA)

See the School of Broadcast and Cinematic Arts for more information.

BCA 210 Survey of the Mass Media 4(4-0)
Examination of historical, political, economic, social, and legal evolution of the mass media with special emphasis on electronic media. Open to all students.

BCA 222 Audio Production 3(1-4)
The art and craft of studio and remote audio production. Prerequisite: BCA 210 with a grade of C or better.

BCA 222 Video Production 3(1-4)
Introductory course in video studio systems. Emphasis on structuring and integrating the various production elements that comprise video presentations. Prerequisite: BCA 210 with a grade of C or better.

BCA 288 History and Appreciation of the Cinema 3(2-2)
History and critical analysis of outstanding fiction films and filmmakers. Innovations from early silents to the present. (Group I-A)

BCA 290 French Film and Other Media 3(3-0)
French cinema in historical and cultural context; works of Gance, Clair, Renoir, Renoir, and Welles; overview of other media; includes field trip to France. (Taught in English. Does not count toward the French major or minor.) Prerequisites: Not open to first semester freshmen. Because the course involves international travel, all students must apply through the Office of International Education. (Group I-A)

BCA 300 African and African American Film 3(3-0)
Examination of films by and about Africans and African Americans. First part of course deals with African and second part with African American films. Prerequisite: sophomore status. (Group I-B)

BCA 310 Broadcast History and New Media Technology 3(3-0)
History of U.S. broadcasting with emphasis on industrial, social, public policy and technological changes in electronic media, and examination of careers related to media industry. This course is approved for offering in a distance learning format. Prerequisite: BCA 210 with a grade of C or better.
BCA 512 Broadcast and Cable Promotion 3(3-0)
Tools and techniques of promotion for radio, television, and cable. Emphasis on media needs, community relations, and problems unique to television media. Prerequisites: BCA 210 311, each with a grade of “C” or better; limited to juniors or above.

BCA 515 Sports Broadcasting 3(2-2)
Overview of the sports broadcasting industry. Emphasis on tools and techniques of live-event production and electronic sports reporting. Prerequisites: BCA 222 or BCA 223; BCA 210, BCA 317 each with a grade of “C” or better.

BCA 516 Broadcast and Cable Management 3(3-0)
Management in contemporary telecommunications settings. Prerequisite: Limited to juniors or above; permission of instructor.

BCA 517 Advanced Audio and Video Production 3(2-2)
Study and intensive practice in complex media production situations. Special emphasis on realistic laboratory experience designed to explore the professional requirements of electronic media talent. Prerequisites: BCA 317 with a grade of “C” or better or permission of instructor.

BCA 518 Advanced Radio and Television News 3(2-2)
Techniques of news gathering, reporting, and interviewing for electronic media. Prerequisite: BCA 318 or JRN 216 with grade of “C” or better, limited to juniors or above.

BCA 519 Electronic Media Programming 3(2-2)
Examination of broadcast/cable programming in terms of recent trends and strategies. Extensive attention to the role and tasks of the program director as manager. Prerequisite: 10 hours in BCA; limited to juniors or above.

BCA 520 Special Topics in Mass Media 1-9(Spec)
Current topics for each semester listed in the Schedule of Classes. 3 hours each; maximum credit, 9 hours. Prerequisite: permission of instructor; limited to juniors or above.

BCA 521 Electronic Cinematography 3(2-2)
Theory and practice in the production of short and long form narrative video, with emphasis on the aesthetic aspects of lighting, direction and editing. Prerequisites: BCA 223, BCA 422 with a grade of “C” or better in each; or permission of instructor.

BCA 522 Multimedia Audio Post-Production 3(2-2)
Advanced recording, editing, sweetening, synchronizing and mixing of audio for selected electronic broadcast and multimedia applications. Prerequisites: BCA 223, BCA 421 with a grade of “C” or better in each; or permission of instructor.

BCA 524 Producing Television News 3(1-4)
A practical approach to producing news. Encompasses gathering, writing, producing, and directing news programming over local cable outlets. Prerequisites: BCA 318 or BCA 223, or permission of instructor; limited to juniors or above.

BCA 525 Film Genre Study 3-9(Spec)
In-depth examination of selected film genres, themes, and trends. Repeatable up to 9 hours when content previously studied is not duplicated. Prerequisite: Limited to juniors or above.

BCA 527 Film Directors 3-9(Spec)
In-depth examination of selected film directors with focus on their themes, visual style, and lives. Critical analysis of films viewed is emphasized. Repeatable up to 9 hours. Prerequisites: BCA 288 or permission of instructor; limited to juniors or above.

BCA 528 History and Analysis of Nonfiction Film 3(2-2)
History and techniques of the nonfiction film and video. Historical and contemporary examples including news reels, propaganda films, and television documentaries.

BCA 529 Internship in Radio-TV-Film 2-6(Spec)
Directed work experience at participating stations, advertising agencies, and other media venues. Students may count a maximum of 6 hours toward a major and 3 hours toward a minor. 2.5 GPA required. Does not fulfill requirement for a minimum of six 400-500 level hours of electives in major. Prerequisites: prior written approval of BCA Intern Director; limited to juniors or above; open only to signed BCA majors or minors.

BCA 531 Industrial and Educational Video/Media Production 3(2-2)
Lecture and intensive hands-on theory, design and production of video and interactive programming specifically for and within institutional/corporate settings. Prerequisites: BCA 223, BCA 422; or permission of instructor.

BCA 532 Advanced Video/Multimedia Post-Production 3(2-2)
Lecture and intensive hands-on theory, design and production of multimedia interactive digital video, with emphasis on advance post-production techniques and techniques. Prerequisites: BCA 223, BCA 422 with a grade of “C” or better in each; or permission of instructor.

BCA 542 Contemporary Recording & Mixing 3(2-2)
Advanced recording, mixing and mastering techniques of contemporary music for multimedia distribution. Summer session only. Laboratory hours arranged with instructor. Prerequisites: BCA 421 with a B or better; or graduate standing; or permission of instructor.

BCA 560 Radio Operations I 3(1-4)
Preparation and performance in radio broadcast practices, emphasizing daily operations, writing, logging, and production procedures. Summer Session I only. Laboratory hours arranged with instructor. Prerequisites: Minimum 2.25 GPA; BCA 222 or BCA 317; or permission of instructor.

BCA 561 Radio Operations II 3(1-4)
Radio broadcast executive operations, including supervisory and management parameters, goal-setting, and evaluation processes. Summer Session II only. Laboratory hours arranged with instructor. Prerequisites: Minimum 2.25 GPA; BCA 560; BCA 222 or BCA 517; or permission of instructor.

BCA 566 Hockey’s Cinematic Depictions 1(1-0)
Focused practice in media criticism through analysis of the sport, business and aesthetics of hockey as depicted in benchmark fiction and non-fiction films. Prerequisites: ENG 201; completion of oral English competency requirement.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

BCA 601 Theories of Mass Communication 3(3-0)
BCA 602 Mass Communication Research Methods 3(3-0)
BCA 611 Telecommunications Media Policy 3(3-0)
BCA 612 Broadcasting/Cable Seminar 3(3-0)
BCA 613 Electronic Media and Convergence 3(3-0)
BCA 619 Continuing Registration for Final Research Project 1(1-0)
BCA 625 Film and Video Theory and Criticism 3(3-0)
BCA 720 Special Topics in Mass Media 3-9(Spec)
BCA 729 Advanced Independent Study 1-9(Spec)
BCA 730 Plan B Project Research 3(3-0)
BCA 798 Thesis 1-6(Spec)

Biology (BIO)
See the Department of Biology for more information.

BIO 100 Introduction to Field Biology at Beaver Island 3(1-4)
An introduction to methods of field study and analysis with an emphasis on the basic relationships between organisms and their environment. At Beaver Island only. Also open to non-enrolled concurrent enrollment by high school juniors and seniors upon admission to CMU or eligible for admission at date of application.

BIO 101 General Biology 3(2-2)
The study of living organisms. Fundamental principles of biology are integrated with local and global issues of current interest. Satisfies University Program Group II laboratory requirement. No credit toward Biology major or minor. May be used toward satisfying the requirements of Integrated Science major or minor for students seeking certification in Elementary Education only. Students may only earn credit in one of the following: BIO 101, BIO 105, or BIO 110. (Group II-A)

BIO 105 Introductory Quantitative Biology 3(2-2)
Basic theories of biology including the characteristics of life, physiological mechanisms of organisms, patterns of heredity, and ecological interactions. Quantitative aspects of these topics. Satisfies Group II laboratory requirement. Credit may not be earned in both BIO 101 and BIO 105. (Group II-B)

BIO 110 Concepts of Biology 4(3-3)
Fundamental concepts of biology including the chemical basis of life, cell structure and function, molecular and transmission genetics, evolution and ecology. Satisfies University Program Group II laboratory requirement. May be applied towards fulfilling the requirements of any Biology major or minor. Students may only earn credit in one of the following: BIO 101, BIO 105, or BIO 110. Recommended: High school chemistry or CHM 120 and 127 or 131 or 161. (Group II-A)

BIO 151 Human Biology 3(3-0)
An introduction to human biology including the cell, genetics, sexuality, structure, and function of the skeletal-muscular, digestive, circulatory, excretory, and nervous systems. No previous background in science required. This course may not be used to satisfy the requirements for a Biology major or minor. (Group II-A)

BIO 197 Special Topics in Biology 1-6(Spec)
Prerequisite: See class schedule.

BIO 203 General Botany 3(2-3)
Study of the structure, function, physiology, evolution, diversity and ecology of plants. Prerequisites: One of the following: BIO 101, 105 or BIO 110. Recommended: High school biology or CHM 120 and 127 or 131 or 161. (Group II-A)

BIO 208 Microbiology 3(2-3)
The biology of microorganisms: bacteria, archaea, viruses, fungi, algae, and protozoa. Prerequisites: One of the following: BIO 101, 105 or 110.

BIO 216 General Zoology 3(2-3)
A general survey of the animal kingdom with emphasis on phylogeny, taxonomy, structure, physiology, and ecology of type examples of the major phyla. Prerequisite: BIO 101 or BIO 105.
BIO 229 Nature Study 3(2-3)
Identification of local flora and fauna and their relationships to the environment. Materials important for teachers, and for outdoor and recreational directors.

BIO 240 Conservation of Natural Resources 3(3-0)
Ecological approaches to issues of global environmental sustainability, with emphasis on preservation of natural resources such as soil, water, forests, and wildlife. (Group II-A)

BIO 297 Special Topics in Biology 1-6(Spec)
Prerequisites: See Class Schedule.

BIO 302 Mid-tier Experience for Secondary Biology Teachers 2(1-2)
Provides biology majors on a secondary teaching program an opportunity to have a classroom experience. Prerequisites: BIO 101, BIO 105, BIO 203, BIO 208, BIO 216; a GPA of 2.7 in biology classes.

BIO 305 Entomology 3(2-3)
Structure, function, natural history, and control of insects. Identification to family level. Insect collection required.

BIO 306 Natural History of Vertebrates 3(2-3)
Collection, identification, museum specimen preparation, and life-history studies of vertebrates through field and laboratory experiences.

BIO 312 Life Manipulations 3(3-0)
Current technology and the ethical implications of issues such as contraception, artificial insemination, in vitro fertilization, cloning, genetic engineering, abortion, and euthanasia. Prerequisite: Completion of Group II requirements of the University Program.

BIO 315 Human Genetics 3(3-0)
Inheritance in man, including genetic mechanisms, human populations, medical syndromes, eugenics, and genetic counseling. Does not count toward biology major.

BIO 320 Biology of Bacteria 3(3-0)
Intermediate microbiology course focusing on bacterial cell structure and function, metabolism, genetics and phylology. Prerequisite: BIO 208

BIO 324 Cell Biology 3(3-0)
Cellular structure and function, including biological molecules, membranes, signaling, bioenergetics and metabolism, the cell cycle, information flow, and other cellular processes. Prerequisites: BIO 203 or 218; 208; One of: BIO 101, 105, 110; One of: CHM 120, 127, 342 or CHM 131, 132 or CHM 161.

BIO 325 Biotechnology 3(2-3)
Laboratory experience in the theory and practice of techniques used in basic cell and molecular biology research and their applications in biotechnology. Prerequisites: BIO 208, and BIO 324 or BIO 326; one of the following CHM sequences: CHM 120, CHM 127, CHM 342 (may be taken concurrently); or CHM 131 and CHM 132; or CHM 161 and CHM 211; or equivalent.

BIO 326 Genetics 4(3-3)
The principles of heredity dealing with the location, transmission, structure and function of genes and the results of modern genetic techniques. Prerequisites: BIO 208; One of BIO 101, 105, 110.

BIO 329 General Plant Morphology 3(2-3)
A survey of the plant kingdom with emphasis on comparative morphology and evolution of major plant divisions.

BIO 330 Light Microscopy 3(2-2)
Principles and practice of biological light microscopy including sample preparation, use of dissecting, brightfield, and fluorescence microscopes and analysis of anatomy/histology of material. Prerequisite: 8 semester hours of biology.

BIO 334 Soil Science 3(2-2)
An introduction to the physical, chemical, and biotic properties of soils; soil classification and mapping; and soil resource issues. Identical to GEO 334. Credit may not be earned in more than one of these courses. Prerequisites: Six (6) hours of environmental science; CHM 120 or CHM 131.

BIO 337 Comparative Vertebrate Anatomy 4(3-3)
An anatomical survey to illustrate the major morphological characteristics of and changes that have occurred within the phylum chordata with an emphasis on the vertebrates. Ontogenetic and evolutionary trends are developed within the framework of functional morphology and adaptation. Prerequisites: BIO 218.

BIO 338 Human Ecology 3(3-0)
The relationship of humans to their environment and the influence of their activities on the environment.

BIO 340 Ecology 3(2-3)
Interaction among plants, animals, man, and the environment. Prerequisite: Completion of Group II (Natural Sciences) and a minimum of 45 hours of University credit.

BIO 351 Biological Science for Elementary Teachers 3(Spec)
Development of teaching methods and laboratory skills necessary for teaching of grades K-8. Prerequisite: BIO 101 or BIO 105.

BIO 361 Water Conservation 1(Spec)
Man's use and misuse of water and our future needs of this resource are reviewed. Management strategies and rehabilitation techniques for this resource are discussed. Two week duration only. Prerequisite or Corequisite: BIO 240.

BIO 362 Forest Conservation 1(Spec)
A practical follow-up to BIO 240 concentrating on the tools and techniques used in forest measurement, harvest, and conservation. Two week duration only. Prerequisite or Corequisite: BIO 240.

BIO 363 Fisheries Conservation 1(Spec)
A practical follow-up to BIO 240 emphasizing the tools and general techniques used in management to best conserve our fisheries resources. Two week duration only. Prerequisite or Corequisite: BIO 240.

BIO 364 Wildlife Conservation 1(Spec)
A practical follow-up to BIO 240 dealing specifically with the wildlife resource. Two week duration only. Prerequisite or Corequisite: BIO 240.

BIO 365 Environmental Contaminants 3(3-0)
Survey of pesticide characteristics and residue problems, hazardous wastes, ground and surface water contaminants, air pollution and acid rain, and other environmental pollution concerns. Prerequisites: CHM 192 or permission of instructor. Recommended: CHM 342 and BIO 240.

BIO 366 Freshwater Biology 3(2-3)
An introduction to the ecology of freshwater systems with an emphasis on the natural history, identification, and collection of freshwater organisms. Prerequisite: 6 hours of biology.

BIO 391 Plant Physiology 4(3-3)
The physical and chemical basis of plant structure and function. Prerequisites: CHM 120, CHM 127, and CHM 342 (may be taken concurrently); or CHM 131 and CHM 132; or CHM 161 and CHM 211; or equivalent.

BIO 392 Mammalian Physiology 4(3-3)
The functioning of the mammalian body and its component parts. Prerequisite: CHM 120, CHM 127, and CHM 342 (may be taken concurrently); or CHM 131 and CHM 132; or CHM 161 and CHM 211; or equivalent.

BIO 397 Special Topics in Biology 1-9(Spec)
Prerequisites: See Class Schedule.

BIO 403 Undergraduate Research 3-4(Spec)
Open to seniors and selected juniors, majoring in biology, who have completed 20 hours with a B average. Philosophy, techniques, and methods of research are discussed. See instructor by the middle of the semester prior to enrollment to design the project and sign the contract. Prerequisite: Registration requires approval of department chairman.

BIO 440 Wildlife Ecology 4(2-4)
An in-depth examination of the field of wildlife ecology as it pertains to the conservation and management of both game and nongame wildlife populations and their habitats. Prerequisites: BIO 340.

BIO 487 Neuroscience Seminar 1-2(Spec)
Analysis of current research in specific areas of neuroscience; critiquing and discussing primary literature and the students' current research relating to specific topics. Students will repeat this course for a maximum of 2 credits. Identical to PSY 487. Credit may not be earned in more than one of these courses. Prerequisites: Signed Neuroscience Major and prior or concurrent neuroscience research experience through BIO 403 or PSY 496 (or equivalent).

BIO 490 Biomedical Sciences Capstone Seminar 1-2(Spec)
Seminar course covering variable topics in an area of biomedical science. Students may take this course for a 2 credit maximum. Repeatable when content previously studied is not duplicated. Prerequisites: BIO 324, 326, 392.

BIO 495 Undergraduate Internship in Biology 1-4(Spec)
An in-depth work experience in the student's area of interest performed under a trained professional in the selected area of biology for 6 to 24 weeks. Prerequisites: The student must have junior standing with a minimum of a 3.0 grade point average in biology and completed at least 20 credit hours before being eligible for the internship program. Students not meeting these requirements may petition for a waiver through their advisor and the department chair.

BIO 497 Special Topics in Biology 1-9(Spec)
Prerequisites: See Class Schedule.

BIO 500 Biological Statistics 3(2-2)
An introduction to biological statistics; emphasis on concepts of descriptive statistics and central tendency, inferential statistics, one-way ANOVA and correlation/regression. Prerequisites: Twelve (12) hours of biology or permission of instructor. Recommended: Math competency equivalent to MTH 130.

BIO 501 Evolution 3(3-0)
Mechanisms of descent with modification are discussed in a framework of microevolution, speciation, and macroevolution. Prerequisites: 9 hours of biology; BIO 326.
BIO 502 Teaching Biology 3(2-3)  
Materials, methods, and problems suitable for use in the secondary school; required training course for prospective teachers of biology. Prerequisites: completion of 22 hours of biology; a GPA of 2.7 in biology classes.

BIO 506 Exploring Michigan’s Natural Resources: Environmental and Science 1-3(Spec)  
Students study the complex relationship between humans and the environment through daily field trips to forests, wetlands, rivers, and other habitats. Special notes: This one week, field-oriented course is held in conjunction with the Michigan Department of Environmental Quality as part of the Higgins Lake Environmental School. Students may take this class only one time. Prerequisites: Background in both biology and teaching is required. A foundation in general ecology such as that in a basic biology course, field training, or life experience is necessary to understand the presentations made by the speakers. BIO 101 and BIO 340 or permission of instructor.

BIO 508 Modern Concepts in Biological Science for Elementary Teachers 3(3-0)  
For teachers of grades K-6. Emphasis on biological concepts taught in elementary and middle school; development of a series of laboratory activities as a class project.

BIO 509 Ichthyology 4(2-4)  
Anatomy, taxonomy, physiology, natural history, and ecology of fishes with laboratory emphasis on fishes of the Great Lakes region. Prerequisites: BIO 218 or equivalent.

BIO 510 Fisheries Biology 4(3-2)  
Analysis of fish populations, management of fisheries resources, and other problems related to freshwater fisheries. Prerequisites: BIO 218.

BIO 511 Aquatic Insects 3(1-4)  
Natural history and systematics of freshwater insects. Prerequisite: one year of biology including introductory entomology.

BIO 513 Plant Taxonomy 3(2-3)  
Plant taxonomy with attention to plants of the Mount Pleasant area. Prerequisite: 6 hours of botany.

BIO 515 Ornithology 4(2-4)  
An introduction to avian biology emphasizing evolution, systematics, and the annual cycle. Identification, song, and general ecology are studied through field trips and laboratory work. Prerequisites: BIO 218 or graduate standing.

BIO 516 Computers In the Biological Sciences 3(2-3)  
Application of field data to procedures of programming and application of data to model structures whenever possible. Elementary mathematics required. Prerequisite: Working knowledge of a language such as BASIC, FORTRAN, PL-1, PASCAL.

BIO 518 Animal Behavior 3(2-3)  
Behavior in invertebrate and vertebrate organisms related to genetics, morphology, and the ecology of animal populations. Prerequisite: one year of biology.

BIO 523 Fresh Water Algae 4(2-4)  
Taxonomy, morphology, and ecology including analysis and collection methods.

BIO 524 Molecular Biology 4(3-3)  
Molecular basis of genetics and genetic expression primarily in prokaryotes and techniques of recombinant DNA technology. Laboratory includes nucleic acid purification and recombinant DNA procedures. Prerequisites: BIO 208, BIO 326; CHM 346, CHM 522 (may be concurrent); or permission of instructor.

BIO 525 Plant Ecology 4(2-4)  
A study of plants emphasizing physical and biotic interrelationships, and factors which govern their distribution. Field work stressed. Prerequisites: BIO 340; a plant identification course highly recommended.

BIO 526 Limnology 3(3-0)  
Examination of physical and chemical properties of lake ecosystems, diversity of aquatic organisms, cycling of essential nutrients, and flow of energy through freshwater food webs. Prerequisites: BIO 340. Recommended: CHM 120 or CHM 131 and 132 or CHM 161.

BIO 527 Limnological Methods 2(0-4)  
A quantitative examination of the physical, chemical and biological aspects of lake ecosystems. This course is designed to accompany BIO 526. Prerequisites: BIO 526 (co-requisite).

BIO 531 Aquatic Vascular Plants 3(2-3)  
Classification, ecology, and importance of aquatic vascular plants and their role in fisheries problems, wildlife management, and limnology.

BIO 534 Endocrinology 3(2-3)  
A study of the ductless glands and their secretions and their influence on the body. Prerequisite: BIO 392.

BIO 536 Histology 3(2-3)  
Study of the principal tissues of vertebrates.

BIO 537 Immunology 4(3-3)  
A description of the biological and biochemical mechanisms of the immune response. Emphasis will be placed on antibody structure, antigen-antibody interaction, immunobiology, and serology. Prerequisites: BIO 326 and CHM 521. Recommended: A knowledge of aseptic techniques is strongly recommended.

BIO 538 Anatomical Preparations 2(1-3)  
Practical techniques involved in the preparation of dry skeletal material, limb-muscle units, differential staining, air-dried viscera, latex injection, plastic embedding and freeze drying of vertebrate specimens. Prerequisites: BIO 101 or BIO 105 and BIO 218 or BIO 337; or permission of instructor.

BIO 540 Mammalogy 4(3-3)  
Survey of evolution, taxonomy, behavioral ecology, physiological ecology, conservation biology, and management as these relate to Class Mammalia. Prerequisites: BIO 218 or graduate status.

BIO 541 Wildlife Biology and Management 4(2-4)  
Focuses on the basic ecological principles and the varied techniques utilized in managing the wildlife resource. Prerequisite: Permission of instructor.

BIO 544 Developmental Biology 4(3-3)  
Cellular and molecular mechanisms of embryonic development, emphasizing animals. Prerequisites: BIO 324 or BIO 326; CHM 132 or CHM 161.

BIO 545 Molecular Genetics 4(3-3)  
Genetic approach to fundamental biological problems via lecture and laboratory. Covers classical genetic techniques and modern molecular methods, including recombinant DNA technology and functional genomics. Prerequisites: BIO 324, 326; CHM 345.

BIO 549 Herpetology 3(2-3)  
Survey of extant amphibians and reptiles from standpoint of morphology, behavior, physiology, evolution, and ecology. Local collecting field trips required. Prerequisites: 6 hours of biology.

BIO 550 Transmission Electron Microscope Technique 4(1-6)  
Biological specimen preparation and examination. Photographic aspects of electron micrograph production.

BIO 552 Scanning Electron Microscope Technique 4(1-6)  
Operation of an SEM including methods of specimen preparation and taking of electron micrographs.

BIO 553 Confocal Microscopy 3(2-3)  

BIO 554 Advanced Electron Microscopy 3(1-4)  
Routine maintenance, alignment and optimization of a TEM and an SEM for high resolution microscopy. Prerequisites: BIO 550, BIO 552.

BIO 556 Biological EDS Analysis 3(1-4)  
Techniques for elemental analysis of biological specimens using an SEM with an energy dispersive spectrometer (EDS). Includes specimen preparation and operation of an EDS system. Prerequisite: BIO 552.

BIO 557 Dendrology 3(2-3)  
Identification and other characteristics of Michigan evergreen and deciduous woody plants, both native and cultivated. Prerequisite: BIO 203.

BIO 558 Natural Resources Management 2(Spec)  
Fish and wildlife research and management, forest management, river degradation, wetland values, and resource interpretation. Much of the course will consist of field trips with resource specialists from the Michigan Department of Natural Resources.

BIO 559 Field Botany 3(2-3)  
The collection, identification, and preparation of herbarium specimens from the local flora. Prerequisites: BIO 203.

BIO 560 Avian Ecology 3(2-3)  
Relationships among behavior, community organization and ecology of birds are examined through investigative field work. Prerequisites: BIO 340; BIO 310 recommended.

BIO 561 Wetland Ecology 3(2-3)  
Wetland systems classification and characterization in North America; includes ecological evaluation of wetland soil, water, plants, plant communities, animals, animal communities, values, destruction, conservation, management. Prerequisite: BIO 340 or permission of instructor.

BIO 573 Forest Ecology and Management 3(2-3)  
Physical and biological factors affecting the growth, distribution, and development of trees and forests. Outdoor laboratories stress techniques for forest measurement, manipulation, harvest, and regeneration. Prerequisites: BIO 340 and BIO 557.

BIO 576 Animal Cell Culture 4(1-6)  
Practical aspects of animal cell culture, involving media preparation, aseptic manipulation of cell culture, cell maintenance, and cell storage. Recommended: BIO 392 or equivalent.

Descriptions of courses approved for the University Program appear in italic type.
BIO 577 Hematology and Immunohematology 3(2-3)
Concepts of hematopoiesis and immunohematology, including cell counts and white cell morphogenesis, physiology and pathophysiology. Clinical techniques and procedures commonly used in hematological evaluation. Prerequisite: BIO 392.

BIO 580 Medical Microbiology 4(2-4)
Focuses on relationships between humans and pathogenic microbes. Covers major groups of medically important microorganisms, pathological consequences of infection, diagnostic procedures, and clinical case problem-solving. Prerequisites: BIO 206 and BIO 392 (or equivalent), or permission of instructor.

BIO 590 Cardiovascular Physiology 3(3-0)
Basic principles of normal mammalian cardiovascular physiology. Prerequisite: BIO 392 or equivalent.

BIO 591 Neurophysiology 3(3-0)
Study of the basic principles responsible for nervous system function. Includes discussion on the structure, electrophysiology, and biochemistry responsible for neural activity and senses. Prerequisites: BIO 392 or equivalent.

BIO 594 Advances In Natural Resources Conservation 2(2-0)
An intensive field or library study after which data are presented orally to the class and in the form of a paper. Prerequisite: BIO 240 or BIO 338. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

BIO 597 Special Topics In Biology 1-9(Spec)
Prerequisite: See Class Schedule.

BIO 600 Biological Research Design and Analysis 3(3-0)

BIO 610 Biology Colloquium 1-9(Spec)

BIO 619 Continuing Registration for Final Research Project 1(1-0)

BIO 620 Biology Practicum 1-9(Spec)

BIO 626 Topics in Genetics 1-3(Spec)

BIO 629 Topics in Eukaryotic Molecular Genetics 1-4(Spec)

BIO 630 Art of Scientific Communication 2(2-2)

BIO 635 Toxicology 3(3-0)

BIO 636 Topics in Botany 1-3(Spec)

BIO 637 Topics in Immunology 1-3(Spec)

BIO 640 Quantitative Ecology 3(3-0)

BIO 648 Field Methods in Ethology 3(2-3)

BIO 650 Population Ecology 3(3-0)

BIO 651 Topics in Ethology 1-3(Spec)

BIO 652 Behavioral Ecology 3(2-3)

BIO 653 Stream Ecology 3(2-3)

BIO 656 Fish Ecology 2(2-0)

BIO 657 Fisheries Management 2(2-0)

BIO 658 Zooplankton Biology 3(2-3)

BIO 660 Conservation Biology 3(3-0)

BIO 690 Conservation Genetics 4(3-3)

BIO 691 Landscape Ecology 4(3-3)

BIO 692 Topics in Physiology 1-4(Spec)

BIO 695 Graduate Internship in Biology 1-6(Spec)

BIO 730 Seminar 1(1-0)

BIO 790 Research in Biology 2-4(Spec)

BIO 798 Thesis 1-6(Spec)

Business Information Systems (BIS)

See the Department of Business Information Systems for more information.

BIS 100 Introduction to Business 3(3-0)
Introduction to principles and problems of interrelated functions of business. Business organizations as social structures and their interaction with the domestic and global environments.

BIS 101 Essential Business Communications Skills 3(3-0)
A focus on effective business communication skills and their impact on career success. Prerequisites: BUS 100 with a 2.0 (C) or better.

BIS 104 Computers and Society 3(3-0)
Fundamental concepts and applications of computers. Impact of the computer on human events and social institutions. Control, predictions, and implications of future computer developments. Does not count on CPS major or minor. Identical to CPS 100. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. (Group IV-A)

BIS 105 Word Processing Concepts 1(1-0)
Introduction to word processing and desktop publishing concepts. Features common to most word processing software. Evaluation of software packages. Identical to CPS 105. Credit may not be earned in more than one of these courses. Prerequisites: BIS 112 or equivalent.

BIS 106 Spreadsheet Concepts 1(1-0)
Introduction to spreadsheets and report generation. Features common to most spreadsheets. Evaluation of software packages. Identical to CPS 106. Credit may not be earned in more than one of these courses. Recommended: Familiarity with microcomputer use.

BIS 107 Database Concepts 1(1-0)
Introduction to database and report generation. Features common to most database products. Evaluation of software packages. Identical to CPS 107. Credit may not be earned in more than one of these courses. Recommended: Familiarity with microcomputer use.

BIS 108 Computer Graphics Concepts 1(1-0)
Introduction to computer graphics. Use of one or more graphics programs. Concepts needed for design and generation of computer images. Evaluation of software. Identical to CPS 108. Credit may not be earned in more than one of these courses. Recommended: Familiarity with microcomputer use.

BIS 111 Computer Communication Concepts 1(1-0)
Introduction to concepts needed for computer communications. Local and wide area networks, electronic mail, file transfer, electronic bulletin boards, conferences. Use of several communication programs. Identical to CPS 109. Credit may not be earned in more than one of these courses. Recommended: Familiarity with use of a computer.

BIS 112 Beginning Keyboarding 1(1-0)
For students with no keyboarding skills. Development of alphabetic and numeric keyboarding skills on a microcomputer. Five weeks of instruction.

BIS 113 Introduction to Word Processing 3(3-0)
Introduction to word processing using current software. Continued development of skill in straight-copy keyboarding and skill in producing business documents. Prerequisite: BIS 112 or equivalent. Recommended: Keyboarding skill of 25 wpm.

BIS 147 Introduction to SAP Enterprise Software 1(1-0)
Concepts and fundamental framework of business enterprise software are introduced using SAP. The SAP technical structure is examined. Prerequisites: BIS 104 or equivalent.

BIS 190 Entrepreneurship for Small Business 3(3-0)
Basic entrepreneurship information. For non-business students only. Prerequisite: Permission of instructor.

BIS 197 Special Studies in Business Information Systems 1-12(Spec)
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisite: permission of department chairperson.

BIS 209 Technical Field Experience 1(0-1)
Students will observe, assist, and provide instruction under the direction of a faculty member in a BIS course taught in a lab setting. CR/NC only. Prerequisites: Completion of EDU 107.

BIS 212 Advanced Word Processing Applications 3(3-0)
Development of advanced information processing skills and techniques using integrated word processing software. Recommended: Keyboarding skill level of 30 gross words a minute. Transfer credit not accepted.

BIS 221 Computers In Business 13(3-0)
The management-oriented study of computer information systems in business, including model building and decision support. Includes coverage of leading software packages used in business. Prerequisites: 26 credits completed with 2.0 minimum GPA; MTH 105 or ACC 201, or corequisite: ACC 201.

BIS 222 Computer Programming - RPG Disk 3(3-0)
Detailed programming of specific areas in accounting involved in information systems (accounts receivable, payroll, sales analysis). Prerequisite: BIS 221 or ACC 201 or equivalent.

BIS 228 Computer Programming-COBOL 3(3-0)
Introduction to the COBOL language with a high emphasis on applications in the field of business. Prerequisite: BIS 104 or CPS 100 or BIS 221 or BIS 255.

BIS 247 SAP Enterprise Software in Business 3(3-0)
The concepts, fundamentals, technical structure, and implementation issues of business enterprise software are introduced using SAP as a tool. Prerequisite: BIS 104 or CPS 100 or BIS 221 or BIS 255.

BIS 251 Field Experience In Business Education 1(Spec)
Individual full-time assignment in a public school for two weeks of onsite observation and participation under the supervision of the department and a secondary business teacher. Satisfies the middle-tier field experience for business teacher education majors. CR/NC only. Prerequisites: Permission of instructor; EDU 107; 41 semester hours completed.

BIS 255 Information Systems 3(3-0)
Introduction to Information Systems (IS) in business and IS development and includes application of concepts to integrated study of business problems. Prerequisites: ACC 250; Tier 2 Admission to Professional Business Studies. Co-requisite: ACC 255.

Descriptions of courses approved for the University Program appear in italic type.
BIS 280 Office Information Processing 3(3-0)
Applications in electronic and magnetic keyboards, editing, transcription, and related office activities. Transfer credit not accepted for BIS 280. Prerequisite: BIS 212 or equivalent.

BIS 288 Business Computer Graphics 3(3-0)
Designing, developing, and editing of computer-generated, business-oriented graphics to enhance display of multimedia presentations of documents. Recommended: BIS 221 or BIS 255.

BIS 297 Special Studies In Business Information Systems 1-12(Spec)
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisite: Permission of department chairperson.

BIS 300 Software Applications in Business 3(3-0)
The applications of database and spreadsheet software as integrated business problem solving tools. Identical to ENT 300. Credit may not be earned in more than one of these courses. Prerequisites: 56 semester hours completed.

BIS 321 Computers in Business II 3(3-0)
The advanced study of business computer information systems, including transaction processing, management information systems, and systems design and analysis. Prerequisites: BIS 221 or BIS 255; 56 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 324 Visual Basic Application Development 3(3-0)
Development of business applications using the Visual Basic programming language with emphasis on issues involved in designing and deploying information technology in organizations. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor or with the approval from the Office of Undergraduate Business Studies. Recommended: BIS 228 or equivalent.

BIS 327 Web Site Development 3(3-0)
Development of Internet and intranet web sites to support business functions including doing business on the Internet with emphasis on issues involved in designing and deploying this information technology by organizations. Prerequisites: BIS 221 or BIS 255; 56 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 328 Structured Program Design 3(3-0)
Application development of file-oriented systems. On-line, interactive programming with emphasis on man-machine dialogues, file processing, table manipulation, and the use of vendor supplied reference materials. Prerequisites: BIS 228 or equivalent; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 350 Principles of Business Education 3(3-0)
Curriculum, career education, planning, competency-based education, learning and teaching theory in business education with emphasis on the basic business subjects and computer literacy. BIS 350 required before student teaching. Prerequisites: majors and minors: 2.0 in BIS 212; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor. Recommended: majors: BIS 350 or concurrent enrollment.

BIS 351 Methods of Teaching Keyboarding/Word Processing 1(1-0)
Content, objectives, materials, testing, grading, visual aids, equipment, and processes for teaching keyboarding/word processing. Must be taken before student teaching. Prerequisites: majors and minors: 2.0 in BIS 212; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor. Recommended: majors: BIS 350 or concurrent enrollment.

BIS 353 Methods of Teaching Secondary Accounting 1(1-0)
Content, objectives, materials, evaluation, visual aids, equipment, and methods of teaching secondary accounting. Must be taken prior to student teaching. Prerequisites: majors and minors: ACC 201; and 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor. Recommended: majors: BIS 350 or concurrent enrollment.

BIS 356 Methods of Teaching Business Management, Marketing and Technology 1(1-0)
Methods of teaching business, management, marketing and technology subjects. Must be taken prior to student teaching. Prerequisites: Listed on a signed Business Teacher Education major; admission to Teacher Education.

BIS 357 ABAP/4 Programming Fundamentals 3(3-0)
Application of ABAP/4 programming language to meet business requirements within the SAP R/3 system as an example of a development workbench for contemporary enterprise software. Prerequisites: BIS 228, BIS 247; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 360 Business Communication 3(3-0)
Development of an understanding of the communication process through business letters, memorandums, business reports, and oral presentations. This course is approved for offering in a distance learning format. Recommended: ENG 201; 56 semester hours completed.

BIS 370 Office Management 3(3-0)
An overview of the management and organization of the business office. Prerequisites: 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 392 Writing Your Business Plan 3(3-0)
A written business plan will be developed describing a potential business or venture, industry trends, marketing strategies, management plans, financial analysis, and how to put it all together in order to present the plan to a banker. Prerequisites: 56 semester hours earned and be in the semester of completion of the Entrepreneurship minor.

BIS 397 Special Studies in Business Information Systems 1-12(Spec)
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisite: Permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 400 Cooperative Occupational Experience 3-6(Spec)
Office work experience under the supervision of the department and participating employer. Includes scheduled classroom instruction. Prerequisites: BIS 280 or concurrent enrollment, or permission of the instructor; 56 hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 420 Systems Analysis and Design 3(3-0)
Fundamentals of business systems analysis and design; study of present system, developing system alternatives. Prerequisites: BIS 221 or BIS 255; 56 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 422 Data Base Management Systems 3(3-0)
Study of data base concepts with emphasis on network, CODASYL, and relational models and their application to business systems. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 423 Decision Support Systems 3(3-0)
Analysis and design of information systems permitting the computer to become an integral part of the managerial decision-making process. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 424 Client/Server Application Development 3(3-0)
Development of three-tier client/server applications using services, business services, and database services. The use of object-oriented programming in developing scalable business applications. Prerequisites: BIS 324 and BIS 422; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 425 Business Systems Applications 3(3-0)
Study of the broad concepts involved in the design and development of information systems. Prerequisites: BIS 420, BIS 422; 86 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 445 Small Business Organization and Operation 3(3-0)
Practical study of location, layout, organization, buying, and merchandising as applied to marketing education. Project method will be used. Prerequisites: MGT 312; MGT 300 or MGT 320; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 451 Coordination in Vocational Education 3(3-0)
Duties, problems, and techniques of coordination and supervision of cooperative training programs, partially designed to meet the state certification requirements. Identical to IET 551. Credit may not be earned in more than one of these courses. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 458 SAP Configuration and Implementation 3(3-0)
Concepts and application of configuring SAP software for enterprise deployment in business organizations. SAP functions matched with business requirements are configured along the implementation guide. Prerequisites: BIS 247, BIS 357, and BIS 420; 56 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor.
BIS 460 Business Communication in a Global Environment 3(3-0)

Applying advanced theory and psychology to business communication. Emphasis on the acquisition and application of communication theory and skill necessary for success in the global business environment. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies. Recommended: BIS 360 or a 200-or-higher-level writing course from outside the College of Business Administration.

BIS 470 Business Report Writing 3(3-0)

Communication of information by written reports as a logical approach to solving business problems. Prerequisites: BIS 360; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 475 Records Management and Control 3(3-0)

Underlying principles and procedures - analysis, application, evaluation of records management; information storage, retrieval and disposition systems and programs. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 480 Telecommunications Management 3(3-0)

Management issues and practical business applications in telecommunication as well as telecommunications technology, policies, careers, and education. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 485 Office Systems 3(3-0)

Introductory systems approach to word processing, data processing, records, and office management in the modern office. Prerequisites: Permission of instructor; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 490 Internship in Information Systems 3(Spec)

A full-time or part-time experience (400+ hours) over one or more semesters in an information systems environment. A written report (Internship Portfolio) is required. Prerequisites: Permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 491 Independent Study 1-3(Spec)

Student-initiated study guided by a faculty member. Prerequisites: 86 semester hours completed; minimum GPA of 3.0; permission of department chairperson; either admission to Professional Business Studies or listed on signed major or minor.

BIS 492 Practicum in Small Business 3(Spec)

Provides the student an opportunity to analyze the accounting, finance, marketing, management, and production systems of an ongoing small business. Identical to ACC/FIN/MGT/MKT 492. Credit may not be earned in more than one of these courses.

BIS 497 Special Studies in Business Information Systems 1-12(Spec)

Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student's transcript. Prerequisites: permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 520 Teaching & Training at the Post-Secondary Level 3(3-0)

Learning process, planning and delivering instruction and training, assessing learning, using technology, adult learners, and current research. Designed for collegiate-level business instructors or trainers. Prerequisites: BIS 350 or admission to the MSIS or MBA program or graduate standing or permission of department chairperson. This course is approved for offering in a distance learning format.

BIS 555 Technology in Business 1-12(Spec)

Issues related to technology and developing and refining computer-related skills and knowledge for solving business problems. Maximum of 6 hours apply to MBE. Prerequisites: admission to MBE or permission of department chairperson.

BIS 597 Special Studies in Business Information Systems 1-12(Spec)

Special topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisites: Permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on signed major or minor or with approval of the Office of Undergraduate Business Studies; or permission of MBA director or MBE advisor. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

BIS 601 Management Information Systems 3(3-0)

BIS 603 Curriculum in Business Education 3(3-0)

BIS 610 Improvement of Instruction in Keyboarding/Word Processing 3(3-0)

BIS 612 Improvement of Instruction in Office Cluster 3(3-0)

BIS 616 Improvement of Instruction in Marketing 3(3-0)

BIS 618 Improvement of Instruction in Data Processing 3(3-0)

BIS 619 Continuing Registration for Final Research Project 1(1-0)

BIS 625 Research in Information Systems 3(3-0)

BIS 628 Business Transaction Processing Systems 3(3-0)

BIS 630 Systems Analysis and Design 3(3-0)

BIS 632 Business Network Systems Management 3(3-0)

BIS 633 Decision Support Systems 3(3-0)

BIS 634 Information Resources Management 3(3-0)

BIS 635 Business Systems Applications 3(3-0)

BIS 638 Database Management for Business Systems 3(3-0)

BIS 640 Essentials of Transaction Processing Systems 2(2-0)

BIS 641 Essentials of Business Systems Analysis and Design 2(2-0)

BIS 643 Essentials of Database Management 2(2-0)

BIS 644 Decision Support for Management 2(2-0)

BIS 645 Integrative Office Information Management 3(3-0)

BIS 647 SAP Enterprise Software for Management 3(3-0)

BIS 650 Office Facility Planning and Design 3(3-0)

BIS 652 Problems in Vocational Education 3(3-0)

BIS 653 Principles and Philosophy of Vocational Education 3(3-0)

BIS 656 SAP Business Information Warehouse 3(3-0)

BIS 657 ABAP Programming for Managerial Systems 3(3-0)

BIS 658 SAP Configuration and Implementation for Global Systems 3(3-0)

BIS 660 Administrative Business Communication 3(3-0)

BIS 667 Electronic Business Systems for e-Commerce 3(3-0)

BIS 668 Comparative Business Education 3(3-0)

BIS 688 Directed Work/Observation/Internship 1-6(Spec)

BIS 697 Special Studies in Business Information Systems 1-12(Spec)

BIS 701 Professional Development Practicum 3(Spec)

BIS 791 Independent Research 3(Spec)

BIS 798 Thesis 1-6(Spec)

Business Law and Regulation (BLR)

See the Department of Finance and Law for more information.

BLR 197 Special Topics 1-6(Spec)

Selected topics of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcript.

BLR 200 Introduction to Entrepreneurship Law 3(3-0)

A course to introduce future entrepreneurs to the legal requirements for forming a business in Michigan. Identical to ENT 200. Credit may not be earned in more than one of these courses.

BLR 202 Legal Environment of Business 3(3-0)

Introduction to the concept and use of law as a social institution. Open to both nonbusiness and business students. This course is approved for offering in a distance learning format. (Group III-B)

BLR 222 The Search for Racial Justice Through Law 3(3-0)

Chronicles and evaluates the use of law by racial minorities in America in the search for justice. (Group IV-C)

BLR 235 Business Law 3(3-0)

Introduction to the role of law and administrative agencies in business transactions; case studies in torts, property, contracts, sales, agency, business organizations, and employment law. Prerequisites: BIS 101, Tier 1 Continuing Admission to Professional Business Studies.

BLR 297 Special Topics 1-6(Spec)

Selected topics of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcript.

BLR 302 Law of Agreements 3(3-0)

Topics include common law contracts, sales, commercial paper, secured transactions. Special emphasis upon the economic setting and modern development of the legal doctrines. Prerequisites: BLR 202 or BLR 295; 56 semester hours.

BLR 310 Alternative Dispute Resolution in Business 3(3-0)

Alternatives to litigation for resolving disputes in business. Techniques of negotiation, mediation, and arbitration are examined and illustrated with student participation. Prerequisite: BLR 202 or BLR 235 or BLR 200

BLR 325 Women and the Law 3(3-0)

Identical to WST 325. Credit may not be earned in more than one of these courses. (Group III-A)

BLR 326 Business Law and the Law of Real Property 3(3-0)

Examines perceptions and behavior toward women and their struggle for change so as to achieve gender equality through use of the law. Identical to WST 325. Credit may not be earned in more than one of these courses. (Group III-A)
BLR 327 Legal Research 3(3-0)
Focuses on the importance of legal research as well as teaching methods of finding, analyzing, and evaluating the law. Open to both business and nonbusiness students. Prerequisites: BLR 202 or BLR 235; 56 semester hours.

BLR 328 Employment Law 3(3-0)
A survey of the regulation of employment and personnel function, nationally and internationally. Prerequisites: BLR 202 or BLR 235; 56 semester hours.

BLR 330 Real Estate Law 3(3-0)
The fundamentals of the law relating to land ownership and use, including possessory and non-possessory rights and interests in land. Prerequisites: BLR 202 or 235

BLR 337 Sports Law 3(3-0)
This course examines and applies various areas of law to the sport business including discrimination in sport with respect to race, gender, and disability. Prerequisites: BLR 202 or 235 or permission of instructor.

BLR 350 Law and Economics 3(3-0)
Theory and application of analytical tools of law and of economics in an integrative approach to both subjects. Identical to ECO 350. Credit may not be earned in more than one of these courses. Prerequisites: BLR 202 or 235, ECO 202 or 203.

BLR 360 Construction Law 3(3-0)
Law and legal issues most commonly encountered in the construction industry. Examined primarily through case studies. Prerequisites: 56 semester hours. 

BLR 365 Native American Justice Through Law 3(3-0)
Examines the legal and historical foundations and current application of the law with respect to the Native American's struggle for recognition and autonomy. Prerequisite: 56 semester hours. (Group IV-C)

BLR 390 Law of Enterprise Organization 3(3-0)
Survey of the legal issues that arise in the formation, operation, and termination of partnerships, and corporations. Prerequisites: BLR 202 or BLR 235; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

BLR 397 Special Topics in Business 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Prerequisite will be listed on the student's transcript. Prerequisites: 56 semester hours.

BLR 410 Regulatory Law 3(3-0)
Survey of major regulatory programs affecting business decision-making, including antitrust, securities regulation, labor-employment law, environmental-land use regulation, utility regulation, administrative law. Prerequisites: BLR 202 or BLR 235; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

BLR 445 Personal Estate Planning 3(3-0)
Fundamentals of estate planning for personal use and professional training. Prerequisites: BLR 202 or BLR 235; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

CDO 278 Descriptive Phonetics 2(2-0)
Elements of anatomy and basic psychophysics of hearing; pathologies causing hearing loss; quantitative measurements of hearing; practice in testing. Prerequisite: BLR 445.

CDO 334 Acoustic and Descriptive Phonetics 4(3-2)
Physical bases of sound, acoustic characteristics of speech production and perception, and a broad and narrow transcription of normal and disordered American English speech sound production using the International Phonetic Alphabet.

CDO 297 Special Topics in Communication Disorders 1-12(Spec)
Identical to CDO 297. Contains subject matter not included in courses currently listed in the Bulletin. 

CDO 330 Language Development 3(3-0)
Study of language development in normally developing children from birth through adulthood; oral language sample analysis; language characteristics in disordered language learners. Prerequisites: CDO 330, CDO 331, CDO 334, CDO 335; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

CDO 335 The Anatomy and Physiology of Speech and Hearing 4(4-0)
Anatomical and neuroanatomical structures and functions for speech and hearing.

CDO 338 Introduction to Articulation and Phonological Disorders 3(3-0)
Children's normal and disordered articulation and phonological disorders including neuroanatomical development, analysis, treatment, related research, and integration with other areas of communication will be discussed. Prerequisites: CDO 290, CDO 278, CDO 335; or permission of instructor.

CDO 339 Clinical and Diagnostic Procedures in Speech-Language Pathology 4(3-2)
Classroom lecture and lab integrating clinical evaluation and intervention techniques for treatment of specific communication disorders. Prerequisites: CDO 290, CDO 330, CDO 331, CDO 334, CDO 335; or permission of instructor.

CDO 340 Child Language Assessment and Intervention 3(3-0)
Formal and informal assessment of language, cognitive and communication functioning in preschool and school-age children not developing language normally; intervention approaches for deficits in language. Prerequisites: CDO 330.

CDO 402 Diagnostics in Communication Disorders 2(2-0)
Diagnostics of disorders of articulation, speech and language. Examination of cases and development of strategies for treatment of articulation disorders.

BUS 619 Voice of the Customer 3(3-0)
BUS 629 Corporate Governance & Social Responsibility 3(3-0)
BUS 639 Process Improvement 3(3-0)
BUS 697 Special Topics in Business 1-12(Spec)
BUS 698 mySAP ERP Integration of Business Processes 4(4-0)

Communication Disorders (CDO)

See the Department of Communication Disorders for more information.

BUS 100 Essential Business Skills 3(3-0)
Introduces students to the concept of a business, its disciplines, and essential business skills including decision-making, team work, and oral and written communication. Prerequisite: None

BUS 300 Applied Business Statistics 3(3-0)
Applications of statistical analysis to support business decision making. Covers collection of business data, analysis of business datasets, and presentation of results. Prerequisites: STA 282 or 382; Tier 2 Admission to Professional Business Studies.

BUS 301 Integrated Business Experience 2(1-1)
Enterprise Resource Planning (ERP) applications emphasizing functional integration of supply chain activities. An integrated business simulation experience links the marketplace to the organization. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MGT 258.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.
CDO 438 Language Disorders in Special Education Populations 3(3-0)
To assist special education, elementary, and secondary teachers in the management of language disorders in mentally impaired, emotionally impaired, learning disabled, and autistic populations. Prerequisite: one course in the area of CDO or permission of instructor.

CDO 439 Clinical Methods in Speech Language Pathology 3(3-0)
Coursework including the clinical interaction process with intervention principles and techniques. Prerequisites: CDO 230, CDO 278, CDO 330, CDO 331, CDO 335, CDO 338, CDO 340, Signed Major in CDO; or permission of instructor.

CDO 463 Introduction to Acoustic Phonetics 2(2-0)
Physical bases of sound and the acoustic characteristics of speech production and perception. Prerequisites: CDO 278 or permission of instructor.

CDO 490 Independent Study 1-4(Spec)
Student-initiated study guided by faculty member or faculty committee. Prerequisites: an overall B average; permission of advisor and instructor (and completion of form).

CDO 494 Mentored Practicum in Communication Disorders 3(1-4)
Supervised clinical assignment with an experienced student mentor encompassing up to 4 hours per week. Weekly lectures regarding clinical procedures, issues, and cases are required. CR/NC only. Prerequisites: CDO 230, 278, 330, 331, 335, 340, 338, a grade point average of at least 3.0 in CDO major courses, and a signed major in CDO; or permission of instructor.

CDO 495 Clinical Experience: Communication Disorders 3-6(Spec)
Enables students in communication disorders to carry out directed clinical practicum. Weekly discussion of clinical problems and cases. Prerequisites: CDO 230, 278, 330, 331, 335, 338, 340, 402, 439, 494, a grade point of at least 3.0 in CDO major courses, and a signed major in CDO; or permission of instructor.

CDO 513 Voice Disorders/Laryngectomee Rehabilitation 3(3-0)
This course covers etiology, types, evaluation, and treatment of persons with voice disorders and laryngectomees. Prerequisites: 30 hours of undergraduate coursework in CDO or admission to the graduate program in SLP or Permission of Instructor.

CDO 530 Speech and Hearing Problems of School Children 3(3-0)
Survey for classroom teachers. Recognition and evaluation of the several types of speech and hearing defects. Not open to majors in CDO.

CDO 531 Audiologic Rehabilitation 3(3-0)
Habitatation and rehabilitative approaches for limited-hearing children and adults including lip-reading, auditory training speech, and language development. Clinical observation and practicum. Prerequisite: CDO 331.

CDO 535 Augmentative and Alternative Communication 3(3-0)
Assessment and treatment of communications disorders resulting from multiple deficits originating from neurological, neuromuscular, sensory, and cognitive disorders. Verbal and nonverbal management approaches are considered. Prerequisites: 30 hours of undergraduate coursework in CDO or admission to the graduate program in SLP or Permission of Instructor.

CDO 537 Special Topics in Communication Disorders 1-9(Spec)
Current topics for each semester listed in the Class Schedule. 3 hours each; maximum credit 9 hours.

CDO 539 Stuttering 3(3-0)
Observation and conceptualization of stuttering behavior including their prevention, etiology, and modification. Prerequisites: 30 hours of undergraduate coursework in CDO; admission to the graduate program in SLP; or Permission of Instructor.

CDO 544 Communication Disorders in the Aged 3(3-0)
Incidence, prevention, assessment, treatment, and impact of communicative disorders associated with laryngeal cancer, hearing impairment, cerebral vascular accidents (strokes), Parkinsonism and other neurological impairments are discussed.

CDO 545 Communication Disorders and Aging 3(3-0)
Theoretical foundations for communication disorders and aging. Functional communication approaches to: gerontological audiologic and speech-language pathology; a continuum of care incorporating prevention and intervention.

CDO 550 Communication Assessment and Intervention in Children with Autism 3(3-0)
This course examines procedures for assessment of communication, language, and speech of children with autism spectrum disorders, and reviews strategies for enhancing communication and language. Prerequisites: SPE 530 Autism Spectrum Disorders: Characteristics and Etiology, and senior or graduate status; or permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

CDO 619 Continuing Registration for Final Research Project 1(1-0)

CDO 621 Emerging Technology in Speech-Language Pathology 2(2-0)

CDO 632 Counseling Issues in Communication Disorders 3(3-0)

CDO 637 Special Topics in Communication Disorders 3(Spec)

CDO 638 Seminar: Adult and Pediatric Swallowing and Feeding Disorders 3(3-0)

CDO 639 Hypopharyngeal Visualization 2(1-2)

CDO 640 Cadaveric Anatomy for Communication 3(2-2)

CDO 643 Disorders of Hearing 3(3-0)

CDO 701 Psycholinguistic and Neurolinguistic Bases of Language 3(3-0)

CDO 702 Infant-Toddler Communication: Assessment and Intervention 2(2-0)

CDO 704 Language Disorders in Preschool Children 3(3-0)

CDO 705 Traumatic Brain Injury 2(2-0)

CDO 708 Language Disorders in School-Age Children 3(3-0)

CDO 711 Craniofacial Disorders 2(2-0)

CDO 712 Physiological Phonetics 2(2-0)

CDO 714 Motor Speech Disorders 3(3-0)

CDO 717 Aphasia & Related Neurogenic Disorder 4(4-0)

CDO 720 Anatomy and Physiology Underlying Neuro-otology 3(3-0)

CDO 721 Audiological Aspects of Pharmacology and Microbiology 3(3-0)

CDO 730 Experimental Studies in Communication Disorders 3(3-0)

CDO 731 Diagnostic Audiology 3(3-0)

CDO 734 Acoustic Phonetics 3(3-0)

CDO 736 Phonological Disorders in Children 3(3-0)

CDO 740 Neuroanatomy 3(3-0)

CDO 741 Special Topics in Audiology 1-9(Spec)

CDO 744 Occupational and Environmental Hearing Conservation 3(3-0)

CDO 749 Clinical Practicum in Speech-Language Pathology or Audiology 1-15(Spec)

CDO 750 Advanced Hearing Science 3(3-0)

CDO 751 Speech Audiometry 3(3-0)

CDO 752 Amplification for the Hearing Impaired 3(3-0)

CDO 754 Pediatric Audiology 3(3-0)

CDO 755 Advanced Diagnostic Practicum in Speech-Language Pathology 3(3-0)

CDO 756 Early Identification and Management of Hearing Loss 3(3-0)

CDO 759 Introduction to Clinical Practicum: Audiology 3-9(Spec)

CDO 762 Advanced Amplification for the Hearing-Impaired 3(3-0)

CDO 763 Audiological Rehabilitation Considerations in Education 3(3-0)

CDO 764 Audiologic Rehabilitation for Adults 3(3-0)

CDO 769 Intermediate Clinical Practicum: Audiology 3-9(Spec)

CDO 771 Advanced Auditory Assessment 3(3-0)

CDO 772 Advanced Technology & Practice Aspects of Amplification 3(3-0)

CDO 773 Advanced Amplification Fitting Strategies 3(2-2)

CDO 781 Electrophysiological Techniques in Audiology 3(2-2)

CDO 782 Evaluation and Management of Balance Disorders 3(3-0)

CDO 783 Advanced Electrophysiological Techniques in Audiology 3(3-0)

CDO 785 Auditory Processing Disorders 3(3-0)

CDO 790 Advanced Independent Study 1-9(Spec)

CDO 795 Internship 3-6(Spec)

CDO 798 Thesis 1-6(Spec)

CDO 849 Advanced Clinical Practicum: Audiology 4-12(Spec)

CDO 853 Psychosocial Aspects of Hearing Loss 3(3-0)

CDO 863 Professional Issues in the Practice of Audiology 3(3-0)

CDO 898 Doctoral Project 1-12(Spec)

CDO 899 Doctoral Dissertation 1-12(Spec)

CDO 995 Clinical Externship 5-23(Spec)

Counselor Education and Personal Development (CED)
See the Department of Counselor Education and Personal Development for more information.

CED 101 Career and Self-Exploration 1(1-0)
Emphasis is on developing self-awareness, career awareness, and academic awareness leading to a comprehensive career plan. Primarily for freshmen.

CED 502 Student Development in Higher Education 3(3-1)
The college student personnel movement, its social, psychological, and cultural foundations. Student development functions, career program models, legal, ethical, and professional considerations; roles of the professional.
### Chemistry (CHM)

See the Department of Chemistry for more information.

**CHM 101 Armchair Chemistry 3(2-2)**
- An introduction to the science of chemistry, using equivalent portions of laboratory experiments and directed discussions.
- No prerequisites. No credit toward major or minor. Satisfies Group II laboratory requirement. (Group II-B)

**CHM 111 The Interaction of Chemistry and Society 3(3-0)**
- The impact of chemistry on our environment. Emphasis on water, air, and environmental pollution. Recommended for elementary school teachers. No credit toward major or minor. No previous chemistry required. (Group II-A)

**CHM 120 Survey of Chemistry 4(4-0)**
- Elementary concepts of chemistry for students on curricula needing minimal chemical background, e.g., forestry, conservation, agriculture, nursing. Cannot be counted on major or minor. This course is approved for offering in a distance learning format. (Group II-B)

**CHM 127 Introductory Chemistry Laboratory 1(0-2)**
- Elementary laboratory experiments which parallel syllabus in CHM 111 and CHM 120. Recommended for students in dietetics, sports medicine, health education, and elementary/middle school education. Prerequisite or corequisite: CHM 111 or CHM 120. (Group II-B)

**CHM 131 Introduction to Chemistry I 4(3-3)**
- Fundamental concepts of chemistry. CHM 131 and CHM 132 are recommended to constitute the standard one-year course. Satisfies Group II laboratory requirement. Prerequisite: high school algebra (one unit). (Group II-B)

**CHM 132 Introduction to Chemistry II 4(3-3)**
- Continuation of CHM 131. Prerequisite: CHM 131 or permission of instructor.

**CHM 161 Principles of Chemistry 5(4-4)**
- Intensive introduction to chemical principles for the well-prepared, motivated student. Satisfies Group II laboratory requirements. Prerequisites: Algebra (I unit), Chemistry (I unit), or CHM 120. (Group II-B)

**CHM 171 Perspectives In Chemistry 1-6(Spec)**
- Student-selected topics for the nonscientist. Semester's topics such as Man-in-the-Sea, Licit and Illicit Drugs announced in Class Schedule. No credit toward major or minor.

**CHM 172 Introduction to the Techniques of Research 1-3(Spec)**
- The course is designed to provide an introduction to laboratory techniques used in research for beginning students in chemistry, for participants in the ACS project SEED program, and for participants in other summer research programs at the beginning level. CR/NC.

**CHM 211 Quantitative Analysis 4(3-5)**
- Gravimetric, volumetric, spectroscopic, and electroanalytical methods of analysis. Prerequisites: CHM 132 or CHM 161, or advanced placement.

**CHM 262 Mass and Energy Balances 4(4-0)**
- Applications of the principles of mass and energy conservation to problems of industrial chemistry and chemical engineering. Prerequisite: CHM 132 or CHM 161.

**CHM 331 Inorganic Chemistry 3(2-4)**
- Descriptive chemistry of selected main group and transition elements, coordination complexes, structures and properties of solids. Synthesis and characterization of inorganic compounds. Prerequisites: CHM 132 or CHM 161.

**CHM 342 Survey of Organic Chemistry 4(3-3)**
- Elementary course covering the entire field of organic chemistry. Course meets the needs for entrance to some professional schools. No credit toward major or minor. Prerequisites: CHM 120, CHM 127; or CHM 132.

**CHM 345 Organic Chemistry I 3(3-0)**
- Aliphatic and related compounds. Prerequisites: CHM 132, CHM 161, or advanced placement.

**CHM 346 Organic Chemistry II 3(3-0)**
- Continuation of CHM 345, with emphasis on aromatic, heterocyclic, related compounds and structures. Prerequisite: CHM 345.

**CHM 349 Introduction to Organic Chemistry Lab 2(0-8)**
- Fundamental laboratory techniques in organic chemistry. Methods of separation and purification of organic compounds. Introduction to applications of infrared and NMR spectroscopy. Introduction to synthesis. Prerequisite or corequisite: CHM 346.
CHM 351 Physical Chemistry I 3(3-0)
Fundamental principles of chemistry based on a quantitative approach. Classical thermodynamics of gases and solutions, chemical equilibrium, and electrochemistry. Prerequisites: CHM 211, PHY 146; Corequisite MTH 233

CHM 352 Physical Chemistry II 3(3-0)
Continuation of CHM 351. Prerequisite: CHM 351.

CHM 355 Biophysical Chemistry 3(3-0)
Application of physical theories to the understanding of energetics, kinetics, and spectra of biochemically relevant structures and reactions. Prerequisites: CHM 211; MTH 133; Prerequisite or corequisite: PHY 151 or 146

CHM 357 Physical Chemistry Laboratory 2(0-4)
Laboratory techniques with advanced data analysis and error propagation in thermochromy, phase equilibria, kinetics, spectroscopy, surface effects and computational chemistry. Prerequisite or corequisite: CHM 352.

CHM 371 Special Topics in Chemistry 1-6(Spec)
Intensive study of selected topics such as Surface Chemistry, Modern Inorganic. Topics and instructor’s prerequisites announced in Class Schedule Book.

CHM 421 Survey of Biochemistry 3(3-0)
Descriptive course covering the entire field of biochemistry for dietetics, prephysician assistant, and biology majors in secondary education. No credit toward major or minor. Prerequisites: CHM 342.

CHM 425 Introductory Biocatalysis 3(3-0)
Structure, function, and metabolism of proteins, carbohydrates, lipids, and nucleic acids. Prerequisites: CHM 346 or equivalent.

CHM 491 Independent Study 1-3(Spec)
Independent study, with laboratory or library thesis. Advisor should be selected during the junior year.

CHM 505 Teaching Chemistry and Physics in Secondary Schools 3(3-0)
Course surveys materials for the teaching of secondary chemistry/physics. For students on teaching curricula, the course must be completed prior to student teaching. Identical to PHY 505. Credit may not be earned in more than one of these courses. Prerequisites: junior standing; CHM 132 or CHM 161; PHY 131 or PHY 146 or equivalent.

CHM 507 Field Experience in Teaching Chemistry/Physics 1(Spec)
Supervised experience in high school chemistry and/or physics classes. Experience will include observation, participation in instruction, and critical analysis of the experience. Identical to PHY 507. Credit may not be earned in more than one of these courses. CR/NC only. Corequisite: CHM/PHY 505 or equivalent.

CHM 511 Advanced Analytical Chemistry 4(2-4)
Spectroscopic, electrochemical, and other techniques as applied to analytical chemistry. Prerequisites: CHM 211. Recommended: CHM 352 or 355.

CHM 512 Biochemistry I 3(3-0)
The chemistry of biomolecules with emphasis on the structure and function of proteins, enzymes, carbohydrates, lipids, and nucleotides; carbohydrate metabolism. Prerequisites: CHM 346.

CHM 522 Biochemistry II 3(3-0)
Continuation of CHM 521. Metabolism of carbohydrates, lipids, amino acids, and nucleotides; molecular biology and genetic engineering. Prerequisites: CHM 521.

CHM 523 Clinical Chemistry 4(3-3)
Application of the principles of analytical techniques to the determination of body constituents as they relate to health and disease. Prerequisites: CHM 211, CHM 346; CHM 425 or CHM 522; BIO 392.

CHM 527 Biochemistry Laboratory 1(0-4)
Isolation, characterization, and analysis of proteins, carbohydrates, lipids, vitamins, and nucleic acids using chromatographic, electrophoretic, and spectrosocpic techniques. Prerequisite: CHM 211, CHM 349. Prerequisite or corequisite: CHM 425 or CHM 521.

CHM 528 Bioanalytical Techniques Laboratory 2(1-3)
Laboratory analysis of biochemical materials using volumetric, electroanalytical, spectrosocpic, and chromatographic techniques. Prerequisites: CHM 425 or 521, Corequisite or prerequisite: CHM 527

CHM 531 Advanced Inorganic Chemistry 3(3-0)
Molecular structure and symmetry, acid-base and oxidation-reduction chemistry, reactivity of inorganic compounds from a thermodynamical basis, catalysis, solid state and organometallic compounds. Prerequisites: CHM 331 or permission of instructor. Recommended: CHM 352.

CHM 541 Advanced Organic Chemistry 3(3-0)
Mechanisms of organic reactions, emphasizing methods by which these are determined, including kinetics, principles of bonding, stereochemistry, and nuclear magnetic resonance in depth. Prerequisites: CHM 346, CHM 351, or permission of instructor.

CHM 547 Techniques and Synthesis in Organic Chemistry 2(1-3)
Advanced synthesis and separation of organic compounds. Elucidation of structure by spectroscopic means. Prerequisite: CHM 349.

CHM 551 Properties and Applications of Modern Materials 3(3-0)
Properties, structure, and applications of modern materials such as those with special nanosstructures and unusual electronic, optical, rheological, and biological properties. Prerequisites: One year each of college level chemistry, physics, and calculus; senior or graduate standing in a science, engineering or engineering degree program.

CHM 552 Synthesis and Characterization of Modern Materials 3(3-0)
A survey of the major classes of modern materials, focusing on the techniques used for synthesis and characterization and the relationship between structure and properties.

CHM 561 Polymer Chemistry 3(3-0)
An introduction to the concepts of polymer synthesis, characterization by physical, thermal, and spectroscopic methods, structure, properties, and basic fabrication processes. Prerequisites: CHM 346 and CHM 352, or permission of instructor.

CHM 562 Industrial Chemistry 3(3-0)
Treatment of the following three primary areas: 1) actual chemistry of industry, 2) the technology of industry, and 3) the industrial chemical environment. Prerequisite: CHM 346 or permission of instructor.

CHM 564 Petroleum Operations 3(3-0)
Treatment of the basic elements of the chemical and physical properties of petroleum: its recovery, processing and use as a base for the fuel and petrochemical industries. Prerequisite: CHM 342 or CHM 346.

CHM 565 Introduction to Polymer Technology 2(2-0)
A consideration of the major groups of technologically important polymers, including raw material base, the important methods of manufacture, properties, processing, compounding, uses and testing. Prerequisite: CHM 561 or permission of instructor.

CHM 567 Polymer Science Laboratory 2(1-3)
Treatment of laboratory techniques common to polymer science: synthesis of polymers and the characterization of these materials by spectroscopic, thermal, and mechanical methods. Prerequisites: CHM 349. Corequisite: CHM 561 or permission of instructor.

CHM 571 Topics in Chemistry 1-9(Spec)
A variety of special topics presented at an advanced undergraduate, beginning graduate level. Topics and instructor’s prerequisites announced in Class Schedule.

CHM 572 Selected Topics in Chemistry 1-9(Spec)
Selected technical topics, often presented in intensive short course or workshop format, for advanced undergraduate or graduate students, secondary or community college teachers and practitioners in the field. Topics and instructor’s prerequisites announced in Class Schedule. CR/NC only.

CHM 583 Seminar in Chemistry 1-4(Spec)
Presentation of technical material and training in the use of chemical literature. Repeated enrollment in CHM 583 is encouraged (up to four times); however, a maximum of 2 credit hours may be used to satisfy major or minor requirements. Prerequisite: 25 hours of chemistry or permission of instructor. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

CHM 611 Advanced Topics in Analytical Chemistry 1-9(Spec)

CHM 619 Continuing Registration for Final Research Project 1(1-0)

CHM 624 Advanced Topics in Biochemistry 1-9(Spec)

CHM 631 Coordination Chemistry 2(2-0)

CHM 632 Advanced Topics in Inorganic Chemistry 1-9(Spec)

CHM 641 Advanced Topics in Organic Chemistry 1-9(Spec)

CHM 642 Chemistry of Heterocyclic Compounds 3(3-0)

CHM 651 Advanced Topics in Physical Chemistry 1-9(Spec)

CHM 662 Molecular Structure 2(2-0)

CHM 663 Macromolecular Synthesis 1-9(Spec)

CHM 664 Solution Properties of Polymers 1(1-0)

CHM 665 Introduction to Polymer Technology 2(2-0)

CHM 673 Applications of Kinetics 1(1-0)

CHM 675 Reaction Mechanisms 1(1-0)

CHM 676 Inorganic Reactions 1(1-0)

CHM 677 Quantum Chemistry 1(1-0)
COM 368 Organic Reactions 1(1-0)
CHM 679 Theory of Spectroscopy 1(1-0)
CHM 680 Physical Techniques and Instrumentation 2(2-0)
CHM 681 Principles of Synthesis 1(1-0)
CHM 683 Thermodynamics 1(1-0)
CHM 684 Applications of Separation Techniques 1(1-0)
CHM 686 Applications of Spectroscopy 1(1-0)
CHM 687 Analytical Techniques 1(1-0)
CHM 688 Bonding and Stereochemistry 1(1-0)
CHM 690 X-Ray Diffraction of Polymers 1(1-0)
CHM 691 Heterophase Polymer Systems 1(1-0)
CHM 692 Polymer Degradation and Stabilization 2(2-0)
CHM 693 Stereochemistry of Polymers 1(1-0)
CHM 781 Chemistry Examination Seminar 2(Spec)
CHM 791 Directed Research 1-6(Spec)
CHM 793 Chemistry Teaching Internship 1-9(Spec)
CHM 794 Experimentation in the Teaching of Chemistry 1-6(Spec)
CHM 798 Thesis 1-6(Spec)

Chinese (CHN)
See the Department of Foreign Languages, Literatures, and Cultures for more information.

CHN 101 Elementary Chinese I 4(4-0)
Designed for students who have had no previous experience with the Chinese language. Basic language skills. Introduction to the culture of China. (Group IV-B)

CHN 102 Elementary Chinese II 4(4-0)
Basic language skills. Continuation of CHN 101. Prerequisites: CHN 101 or permission of instructor. (Group IV-B)

Communication (COM)
See the Department of Communication and Dramatic Arts for more information.

COM 101 Introduction to Communication 3(3-0)
General education approach to theory and process of human communication with practicum opportunities. Does not count toward a major or minor in Speech Communication and Dramatic Arts.

COM 195 Intercultural Communication 3(3-0)
Content focuses on how values, attitudes and beliefs influence communication among people from different cultural backgrounds.

COM 251 Foundations of Communication Theory 3(3-0)
Basic theories pertaining to spoken symbolic interaction, focusing mainly on the psychological and sociological aspects of interpersonal communication and public address.

COM 255 Special Topics in Communication 1-6(Spec)
Varied topics of current interest; listed in the Class Schedule.

COM 264 Organizational Communication 3(3-0)
Current communication theories and practices in the modern formal organization. Especially recommended for students on preprofessional curricula.

COM 267 Introduction to Debate 3(3-0)
Prepares students without experience to gain understanding of theory and practice of debate. Recommended for prelaw, prebusiness, urban government students, and teachers.

COM 269 Practicum in Debate/Forensics 2-6(Spec)
Opportunities for intensive research on topics in debate and various forms of forensics for students in the University forensics program. Prerequisite: permission of instructor.

COM 301 Survey of Research in Communication 3(3-0)
An introduction to the research and its methodologies in speech communication. Students will read and write about primary research in the discipline. Prerequisite: a grade of C (2.0) or better in COM 251.

COM 353 Small Group Communication 3(3-0)
Theories and application of the methods surrounding small-group interaction processes.

COM 357 Public Speaking 3(3-0)
Theories and techniques for creating public speeches. Designed for students who seek to improve public-speaking skills.

COM 468 Advanced Interpersonal Communication 3(3-0)
Survey of interpersonal communication theories. Focuses on current issues and concepts in the area of interpersonal relationships. Prerequisites: COM 251, COM 301, with a grade of C (2.0) or better; COM 361; or permission of instructor.

COM 490 Independent Study 1-9(Spec)
Directed study under the supervision of the Department and a secondary instructor (and completion of form). Undergraduate prerequisites: an overall B average; permission of advisor and instructor (and completion of form).

COM 492 Speech Methods in Secondary School 4(4-0)
Philosophy, principles, and methods. Curricular and co-curricular responsibilities of secondary teachers (grades 7–12). Students also will work as a teaching assistant in COM 101. Prerequisites: Student must be accepted into the Teacher Education program. Must be taken the spring semester prior to student teaching at the secondary level in Speech.

COM 493 Field Experience in Speech Education 1(Spec)
Individual one-week assignment in a public school of on-site observation and participation under the supervision of the department and a secondary speech communication teacher. CR/NC only. Prerequisites: permission of instructor; EDU 107. Corequisite: COM 492.

COM 495 Communication Facilitation 2-6(Spec)
Guided experience as teaching assistant in a communication class. Students will have the opportunity to develop interpersonal, small group, public speaking, and supervisory communication skills in an applied setting. Prerequisite: permission of instructor.

COM 523 Dark Side of Communication 3(3-0)
This course examines negative communication behaviors such as expression of jealousy, gossip and rumor, embarrassment, criticism, deception, coercion, and obsession. Prerequisites: COM 251, 301 with grades of C or better; COM 361.

COM 555 Special Topics in Interpersonal and Public Communication 1-9(Spec)
Current topics of each semester listed in the Class Schedule. 3 hours each; maximum credit 9 hours. Prerequisites: grades of C (2.0) or better in COM 251, COM 301; or permission of instructor.

COM 558 Historical Backgrounds of Communication Theory 3(3-0)
Theories of rhetoric and communication from the classical, medieval, and Renaissance periods studied in a comprehensive historical philosophical survey. Prerequisites: grades of C (2.0) or better in COM 251, COM 301; or permission of instructor.

COM 560 Communication and Social/Organizational Change 3(3-0)
Research and methods of communicating changes into existing social systems. Prerequisites: grades of C (2.0) or better in COM 251, COM 301; or permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
COM 561 Communication in Conflict Management 3(3-0)
Theory, research, and practical application of managing conflicts through communication. Focuses on conflict between people in the contexts of family, group, and organizations. Prerequisites: grades of C (2.0) or better in COM 251, COM 301; or permission of instructor.

COM 562 Family Communication 3(3-0)
The study of verbal and nonverbal communication processes, patterns, and problems in the family. The uniqueness of the family system as a communication context is emphasized. Prerequisites: grades of C (2.0) or better in COM 251, COM 501; or permission of instructor.

COM 565 Communication Training in Organizations 3(3-0)
This course examines the role of training in improving communication in organizations. The course discusses the design, development, implementation, and evaluation of organizational communication training. Prerequisites: grades of C (2.0) or better in COM 251, COM 301; COM 294; or permission of instructor.

COM 569 Communication in the Classroom 3(3-0)
Integrated research from several fields describing communication patterns among students and teacher-to-student within school settings. Designed for students interested in teaching or administration. Prerequisites: completion of 56 hours of undergraduate credit.

COM 591 Oral Communication with Children 3(3-0)
Study and practice of adult-child communication patterns. Course will include state objectives for speaking/listening. Designed for teachers and people working with children.

COM 594 Directing Speech Activities 3(3-0)
Designed to provide the student or the professional teacher with the skills needed to coach and administer forensic activities on the high school level. Prerequisites: grades of C (2.0) or better in COM 251, 301; or permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

COM 600 Introduction to Research and Graduate Study in Speech and Dramatic Arts 3(3-0)

COM 601 Research Design in Speech Communication 3(3-0)

COM 602 Qualitative Research Methods 3(3-0)

COM 619 Continuing Registration for Final Research Project 1(1-0)

COM 660 Seminar in Interpersonal Communication 3-9(Spec)

COM 661 Contemporary Communication Theory 3(3-0)

COM 662 Seminar in Persuasion 3(3-0)

COM 664 Seminar in Organizational Communication 3(3-0)

COM 665 Seminar in Communication and Negotiation in Employee Relations 3(3-0)

COM 667 Seminar in Intercultural Communication 3(3-0)

COM 668 Seminar in Interpersonal Communication 3(3-0)

COM 750 Seminar in Rhetorical Criticism 3(3-0)

COM 764 Communication Internship 1-6(Spec)

COM 790 Advanced Independent Study 1-4(Spec)

COM 795 Seminar: Teaching College Speech 3(2-2)

COM 798 Thesis 1-6(Spec)

Computer Science (CPS)

See the Department of Computer Science for more information.

CPS 100 Computers and Society 3(3-0)
Fundamental concepts and applications of computers. Impact of the computer on human events and social institutions. Control, predictions, and implications of future computer developments. Identical to BIS 104. Credit may not be earned in more than one of these courses. Does not count on CPS major or minor. This course is approved for offering in a distance learning format. (Group IV-A)

CPS 105 Word Processing Concepts 1(1-0)
Introduction to word processing and desktop publishing concepts. Features common to most word processing software. Evaluation of software packages. Identical to BIS 105. Credit may not be earned in more than one of these courses. Recommended: BIS 112 or equivalent.

CPS 106 Spreadsheet Concepts 1(1-0)
Introduction to spreadsheets and report generation. Features common to most spreadsheets. Evaluation of software packages. Identical to BIS 106. Credit may not be earned in more than one of these courses. Recommended: Familiarity with microcomputer use.

CPS 107 Database Concepts 1(1-0)
Introduction to database and report generation. Features common to most database products. Evaluation of software packages. Identical to BIS 107. Credit may not be earned in more than one of these courses. Recommended: Familiarity with microcomputer use.

CPS 108 - Computer Graphics Concepts 1(1-0)
Introduction to computer graphics. Use of one or more graphics programs. Concepts needed for design and generation of computer images. Evaluation of software. Identical to BIS 108. Credit may not be earned in more than one of these courses. Recommended: Familiarity with microcomputer use.

CPS 109 Computer Communication Concepts 1(1-0)
Introduction to concepts needed for computer communications. Local and wide area networks, electronic mail, file transfer, electronic bulletin boards, conferences. Use of several communication programs. Identical to BIS 111. Credit may not be earned in more than one of these courses. Recommended: Familiarity with use of a computer.

CPS 110 Information Technology Programming I 3(3-0)
Introduction to operating a computer and writing computer programs. First programming course in the information technology major/minor. Language used is Visual Basic.

CPS 120 Microcomputer Applications 3(3-0)
The effective use of microcomputer technology in business, education, industry, and society. Does not count towards CPS major or minor, except on the secondary education curriculum. Recommended: Familiarity with microcomputer use.

CPS 150 FORTRAN Programming 2(2-0)
Algorithms, programs, and computers. Computer solution of numerical and nonnumerical problems. Does not count toward a major or minor in CPS. Prerequisite: MTH 101.

CPS 165 Designing Web Pages 1(1-0)
Design and publication of web pages. Introduction to HTML, browser characteristics and multiple authoring tools. Do’s and don’ts of web publishing. Examples and tutorials. Recommended: Familiarity with personal computer usage.

CPS 170 Operating Systems Commands 1-3(Spec)

CPS 180 Principles of Computer Programming 3(3-0)
Algorithm development and problem solving methods. Design and development of computer programs in a structured programming language. Corequisite: MTH 130. (Group II-B)

CPS 181 Introduction to Data Structures 3(3-0)
Continuation of CPS 180. Dynamic storage allocation, recursion, abstract data types (such as stacks, queues, linked lists, and binary trees), sorting and searching. Prerequisites: CPS 180; Corequisite: MTH 175.

CPS 196 Special Topics in Computer Science 1-6(Spec)
Selected topics which are not normally included in existing courses. May be taken for credit more than once, but total credit earned in CPS 196 may not exceed 6 semester hours. Prerequisites: permission of instructor.

CPS 210 Assembly Language and Computer Organization 3(3-0)
Topics in assembly language concepts, introduction to computer organization, machine representation of information, models of computer architecture, instruction and addressing fundamentals, control structures. Prerequisite or Corequisite: CPS 181 Recommended: One of: MTH 132, MTH 136 or MTH 216.

CPS 240 Object-Oriented Programming 3(3-0)
Introduction and analysis of the object-oriented programming paradigm and concepts. Design of classes and objects in problem solving. Use of object libraries. Prerequisites: A grade of C or higher in CPS 181, or permission of instructor.

CPS 280 Alternative Programming Languages 1-6(Spec)

CPS 284 Introduction to Multimodal Design 3(3-0)
Introduction to multimedia concepts. Survey of multimedia applications in fields such as education, business and entertainment. Introduction to multimedia authoring tools. Hands-on projects. Prerequisites: any CPS 100-level course, or permission of instructor.

CPS 296 Special Topics in Computer Science 1-6(Spec)
Selected technical topics of the latest developments in the field. These topics are normally not covered in existing courses. Prerequisites: permission of instructor.

CPS 340 Advanced Data Structures and Algorithms 3(3-0)
Theory of and advanced techniques for representation of information; lists, trees, graphs; analysis of algorithms; sorting, searching and hashing techniques. Prerequisites: CPS 181, CPS 210; MTH 223 or MTH 137.

CPS 360 Computer Design and Architecture 3(3-0)
Analysis and design of combinational and sequential logic circuits. Basic concepts of computer architecture at the register-transfer-logic level. Prerequisite: CPS 210.

Descriptions of courses approved for the University Program appear in italic type.
CPS 370 File Manipulation Techniques 3(3-0)
Creation and manipulation of program and data files, scientific and industrial applications of file-oriented systems, prominent computer languages having file processing capabilities. Prerequisite: CPS 181.

CPS 380 Microcomputer Architecture 3(3-0)
Concepts and operation of microprocessors and microcomputers to include input/output, mass storage, memory, and small read-only memory operating systems. Prerequisites: CPS 210, CPS 360 or equivalent.

CPS 395 Internship in Computer Science 1-8(Spec)
Supervised work experience in computer science. Only 3 hours may count toward the major. Any additional hours must provide a significantly different educational experience. CR/NC only. Prerequisites: CPS 210 or ITC 291; permission of department chairperson.

CPS 396 Special Topics in Computer Science 1-6(Spec)
Selected technical topics of the latest developments in the field. These topics are normally not covered in existing courses. Prerequisite: permission of instructor.

CPS 410 Software Engineering 3(3-0)
Software specification, design methods, programming and testing techniques and CASE tools. Developing large software systems in a group environment using modern software engineering techniques. Prerequisites: CPS 340; Recommended: CPS 370.

CPS 420 Windows Programming 3(3-0)
Introduction to programming for windowing systems. Graphical User Interfaces, object-oriented programming, shared data and program libraries. Mixed-language programming. Relationships among windowing systems. Prerequisites: CPS 340 or ITC 320.

CPS 450 Programming Language Concepts 3(3-0)
Formal definition of programming languages including specification of syntax and semantics. Prerequisite: CPS 340.

CPS 468 Systems Programming and Software 3(3-0)
Systems concepts--file system, shell, system calls; software such as assemblers, linkers, loaders; systems programming in a modern programming environment such as UNIX. Prerequisites: CPS 340.

CPS 470 Introduction to Operating Systems 3(3-0)
Operating systems as resource manager. Study of the strategies used to manage system resources such as devices, files, memory, processes. Prerequisites: CPS 340, CPS 360.

CPS 480 Introduction to Artificial Intelligence 3(3-0)
Automated reasoning, search strategies, knowledge representation, game playing, expert systems, machine learning and perception; applications. Prerequisites: CPS 340.

CPS 482 Advanced Multimedia Design 3(3-0)
Interactive multimedia projects will be designed using advanced authoring tools. Issues concerning representation, storage, compression, transmission, and manipulation of various multimedia components will be discussed. Prerequisites: CPS 292 or permission of instructor.

CPS 496 Special Topics in Computer Science 1-6(Spec)
May be taken for credit more than once, but total credit earned in CPS 496 may not exceed 6 semester hours. Prerequisite: permission of instructor.

CPS 497 Independent Study 1-6(Spec)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours.

CPS 501 Survey of Computer Science 3(3-0)
Computer organization, low and high level computer languages, various computer applications. Does not count toward CPS major or minor or the M.S. in Computer Science except the Teaching Minor in Computer Science on the secondary education curriculum.

CPS 502 Introduction to Problem Solving & Data Structures 3(3-0)
Structured program design and problem solving. Abstract data types. Searching and sorting. Does not count toward any degree program in Computer Science. Prerequisite: Conditional admission into CPS M.S. program, or permission of instructor. This course is approved for offering in a distance learning format.

CPS 503 Digital Design & Computer Organization Using Assembly Language 3(3-0)
Introduction to organization of a digital computer. Design of digital circuits. Assembly language programming. Does not count toward any degree program in Computer Science. Prerequisite: conditional admission into CPS M.S. program, or permission of instructor.

CPS 510 Software Systems Engineering 3(3-0)
Covers requirements analysis and techniques to develop a system from those requirements. Credit will not be given for both CPS 410 and CPS 510. Does not count for the M.S. in Computer Science. Prerequisites: CPS 340; MTH 175. This course is approved for offering in a distance learning format.

CPS 530 Simulation of Discrete Event Systems 3(3-0)
Development of computer models for discrete systems using computer simulation languages. Performance evaluation of computer, industrial and engineering systems. Prerequisite: CPS 181; STA 282 or STA 382.

CPS 531 Distributed Programming 3(3-0)
Study of design and implementation issues in distributed programming, including event model, networking, database connectivity, remote method invocation, servlet, XML, and security. Prerequisite: CPS 340. Recommended: CPS 380 or equivalent.

CPS 541 Databases 3(3-0)
Physical and logical organizations of databases, database management systems, project involving a student-designed database. Prerequisites: CPS 340 and CPS 370; or ITC 447 and permission of instructor.

CPS 542 Analysis and Design of Algorithms 3(3-0)
Models of computation. Analysis of algorithms including computing time and space requirements. Efficient algorithm design techniques. Introduction to parallel algorithms. Prerequisite: CPS 340.

CPS 560 Digital Computer Design 3(3-0)
Design of basic components of a general purpose computer such as CPU, memory, I/O systems. Instruction set design. CISC versus RISC debate. Parallel Architectures. Prerequisite: CPS 360.

CPS 565 Computer Networks I 3(3-0)
Introduction to data communication as a basis for computer networking. Protocols, routing algorithms, and congestion in point-to-point networks. Introduction to local area networks. Prerequisites: CPS 340, CPS 360; or ITC 465; permission of instructor.

CPS 575 Computer Graphics 3(3-0)
Representation of line drawings, handwritings, and three-dimensional surfaces in computers. A plotter and graphics terminal are used. Prerequisites: CPS 181; MTH 157 or MTH 223.

CPS 576 Digital Image Processing 3(3-0)
Digital image fundamentals. Introduction to digital image processing concepts and techniques. Image transforms. Enhancement, segmentation, representation, and description of images. Image encoding and restoration. Prerequisites: CPS 340; MTH 175, MTH 223; or permission of instructor.

CPS 590 Computer Applications In Educational Administration 3(3-0)
Use of computers in managing educational resources and programs. Hands-on instruction in use of existing systems. How to design and implement new systems. Does not count on CPS majors or minors except for teacher certification program. Prerequisite: CPS 501.

CPS 591 Computer Application In Classroom Instruction 3(3-0)
Software evaluation and hardware selection. Modes of computer-based instruction. Introduction to CAI and authorizing systems. Simulation/gaming for instructional purposes. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 592 Computer Science Content for Elementary Teachers 3(3-0)
Introduction to procedural thinking skills. Programming in BASIC and LOGO. Overview of computer architecture at a functional level. Use of binary and hexadecimal numeration systems. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 596 Special Topics In Computer Science 1-6(Spec)
May be taken for credit more than once but total credit earned in CPS 596 may not exceed 6 semester hours. Prerequisite: permission of instructor.

CPS 597 Independent Study 1-6(Spec)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours.

CPS 603 Computer Information Systems 3(3-0)
Introduction to any course described, consult the current College of Graduate Studies Bulletin.

CPS 609 Advanced Software Design and Development 3(3-0)
Software verification and validation 3(3-0)

CPS 612 Software Project Management 3(3-0)
Managing new systems. Hands-on instruction in use of existing systems. How to design and implement new systems. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 613 Specification of Software Systems 3(3-0)
Introduction to procedural thinking skills. Programming in BASIC and LOGO. Overview of computer architecture at a functional level. Use of binary and hexadecimal numeration systems. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 614 Principles and Applications of Software 3(3-0)

CPS 615 Software Generation and Maintenance 3(3-0)

CPS 619 Continuing Registration for Final Research Project 1(1-0)

CPS 630 Theory of Automata and Formal Languages 3(3-0)

CPS 641 Advanced Topics in Databases 3(3-0)

CPS 645 Theory of Computation 3(3-0)

CPS 650 Theory and Practice of Compiler Construction 3(3-0)

CPS 651 Operating Systems 3(3-0)

CPS 652 Advanced Topics in Computer Graphics 3(3-0)

CPS 653 Advanced Topics in Database Systems 3(3-0)

CPS 656 Advanced Applications of Artificial Intelligence 3(3-0)

CPS 657 Advanced Topics in Computer Science 3(3-0)

CPS 660 Artificial Intelligence 3(3-0)

CPS 661 Advanced Topics in Artificial Intelligence 3(3-0)

CPS 665 Digital Image Processing 3(3-0)

CPS 667 Expert Systems 3(3-0)

CPS 668 Computer Graphics 3(3-0)

CPS 669 Computer Architecture 3(3-0)

CPS 670 Operating Systems 3(3-0)

CPS 671 Computer Science Content for Elementary Teachers 3(3-0)

CPS 672 Computer Applications In Educational Administration 3(3-0)

CPS 675 Computer Science Content for Elementary Teachers 3(3-0)

CPS 676 Computer Science Content for Elementary Teachers 3(3-0)

CPS 677 Computer Science Content for Elementary Teachers 3(3-0)

CPS 678 Computer Science Content for Elementary Teachers 3(3-0)

CPS 680 Artificial Intelligence 3(3-0)

CPS 681 Advanced Topics in Artificial Intelligence 3(3-0)

CPS 682 Pattern Recognition and Data Mining 3(3-0)

CPS 683 Advanced Topics in Computer Science 3(3-0)

CPS 684 Special Topics In Computer Science 1-6(Spec)

CPS 685 Professional Field Experience 1-6(Spec)

CPS 686 Special Topics In Computer Science 1-6(Spec)

CPS 687 Independent Study 1-6(Spec)

CPS 688 Thesis 1-6(Spec)

Descriptions of courses approved for the University Program appear in italic type.
Dance (DAN)

See the Department of Communication and Dramatic Arts for more information.

DAN 104 Latin Dance I 1(1-0)
Introduction to the social dances of Central and South America and other Latin cultures. Emphasis on basic steps; rhythmic patterning and development of style.

DAN 105 Social Dance I 1(Spec)
Introduction to social dance forms and styles.

DAN 106 Country Line Dance I 1(Spec)
Introduction to the basic elements and skills used in the performance of country line dance.

DAN 107 Swing Dance I 1(Spec)
Introduction to the basic steps and styles of swing dance.

DAN 122 Introduction to Clogging 1(Spec)
Beginning level of clogging. Students will learn basic level clogging steps using a variety of music. Students will learn to read cue-sheets and understand the history of clogging. Identical to PED 132. Credit may not be earned in more than one of these courses.

DAN 133 Dance Technique I 2(1-2)
Beginning instruction, techniques, and basic skills of contemporary dance.

DAN 134 Recreational Dance I 1(Spec)
An introductory course designed to acquaint the student with beginning folk, square, and social dance.

DAN 136 Ballet Technique I 2(Spec)
To familiarize the beginning student with the basics of ballet.

DAN 137 Tap I 2(Spec)
An introductory dance course of basic tap instruction.

DAN 138 Jazz I 2(Spec)
An introductory course in jazz dance that builds from traditional jazz into the contemporary.

DAN 140 Dance Repertory Theatre I 2-4(Spec)
The in-depth study of the techniques and principles of stage form, style, and projection necessary for dance performance. Prerequisite: Audition or permission of instructor.

DAN 230 Movement Rhythmic Form and Structure 3(3-0)
An in-depth study of the dynamic functions of movement and dance.

DAN 231 Fundamental Movement 2(2-0)
An introduction to the basic analysis of locomotor and nonlocomotor movement. Emphasis on skills, posture, and physical development of the individual.

DAN 232 Dance Composition I 2(2-0)
Introduction to the basic elements of dance choreography through the use of creative problem solving. Prerequisite: DAN 133 or permission of instructor.

DAN 233 Dance Technique II 2(1-2)
Intermediate technique. Prerequisite: DAN 133; or permission of instructor.

DAN 236 Ballet II 2(Spec)
To afford students the opportunity to use skills learned in Ballet I to progress to a higher level of proficiency in ballet movement. Recommended: Ballet I or permission of instructor.

DAN 237 Tap II 1(Spec)
Continuation of DAN 137, Tap I, leading to the development of intermediate tap techniques. Prerequisites: DAN 137 or permission of instructor.

DAN 240 Dance Repertory Theatre II 2-4(Spec)
Continuation of DAN 140. Prerequisite: DAN 140 or permission of instructor.

DAN 332 Dance Composition II 3(3-0)
Continuation of DAN 232 with the inclusion of historical styles and approaches in dance choreography. Prerequisite: DAN 232.

DAN 333 Dance Technique III 2(1-2)
Advanced technique. Prerequisites: DAN 233 with a grade of B, or permission of instructor.

DAN 334 Teaching of Folk, Square, and Social Dance 3(3-0)
Skills, techniques, and materials for teaching. Identical to RPL 334. Credit may not be earned in more than one of these courses.

DAN 337 Tap III 1(Spec)
Development of intermediate to advanced tap techniques in various combinations with jazz styling. Prerequisites: DAN 237; intermediate techniques or permission of the instructor.

DAN 340 Dance Repertory Theatre and Tour Company 2-8(Spec)
Study of choreography created by members of the dance faculty and guest artists, leading to public performance. Prerequisite: audition or permission of instructor.

DAN 343 Dance Production 3(2-2)
Basic techniques of lighting, costume, make-up, programming, and general design of a dance concert. Class, projects, guest speakers, and field trips.

DAN 345 Methods of Creative Movement 2(Spec)
Techniques and procedures for teaching rhythm and dance activities for the physical education and dance teacher in grades K-12.

DAN 440 Performance Ensemble 2-8(Spec)
Preparation and performance of dance roles of Orchesis. Prerequisite: audition or permission of instructor.

DAN 480 Dance Practicum 1-3(Spec)
Curriculum planning and teaching of K-12, college, or adults in a laboratory setting. CR/NC only. Prerequisites: permission of instructor; senior standing.

DAN 494 Field Study in Dance 1-3(Spec)
An approved investigation, survey, study, or description observation in some area of dance performed off-campus. Prerequisites: permission of instructor; senior standing.

DAN 530 History of Dance 3(3-0)
Dance history from its primitive beginning to the present. Relationships of dance forms to the societies in which they developed.

Doctor of Health Administration (DHA)

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

DHA 700 Leadership: Foundations and Strategies for Healthcare 3(3-0)

DHA 702 Probability and Statistics for the Health Professions 3(3-0)

DHA 704 Population Health 3(3-0)

DHA 705 Seminar in Public Health 1(1-0)

DHA 706 Quantitative Analysis in Health Organization 3(3-0)

DHA 708 Organizational Theory and Behavior for the Health Professions 3(3-0)

DHA 709 Seminar in Health Dynamics: Current Issues, Trends and Change 1(1-0)

DHA 710 Qualitative and Operational Analysis in Healthcare 3(3-0)

DHA 712 Research Methods and Practice for the Health Professions 3(3-0)

DHA 713 Seminar in Health Services Research 1(1-0)

DHA 714 Health Systems Thinking and Practice 3(3-0)

DHA 716 Communication in Health Organizations 3(3-0)

DHA 717 Seminar in Healthcare Dynamics: Stakeholder Relations 1(1-0)

DHA 718 Healthcare Law, Regulations and Ethics 3(3-0)

DHA 720 Health Economics 3(3-0)

DHA 721 Seminar in Healthcare Policy and Politics 1(1-0)

DHA 722 Health Informatics 3(3-0)

DHA 724 Fiscal Responsibility and Accountability for Health Entities 3(3-0)

DHA 725 Seminar in Strategic Planning for Health Organizations 1(1-0)

DHA 726 Applied Leadership 3(3-0)

DHA 728 Health Systems Excellence 3(3-0)

DHA 889 Dissertation Design, Implementation, Defense and Reporting 1-12(Spec)

Economics (ECO)

See the Department of Economics for more information.

ECO 101 Economics as a Way of Thinking 3(3-0)
Introduction to the economic way of thinking and its applications to decision making in daily living. Emphasis on basic understanding of the economic aspects of current issues. Credit on the Economics major will be given only if this course is taken prior to ECO 201 or ECO 202 or ECO 203.

ECO 110 Economics and Society 3(3-0)
An examination of the development of economic thought and institutions with emphasis on the application of this knowledge to the understanding of today’s world. (Group II-B)

ECO 150 Current Economic Problems 3(3-0)
Economic topics of current national and international concern. Economic issues with which informed voters must deal. No credit if credit has been earned in ECO 201 or ECO 202 or ECO 203 or ECO 204.

ECO 201 Principles of Macroeconomics 3(3-0)
Provides understanding of basic principles of economics, methods of National Income accounting, inflation, unemployment, role of government, money and banking, monetary policy, and international economics.

Descriptions of courses approved for the University Program appear in italic type.
ECO 202 Principles of Microeconomics 3(3-0)
Introduction to scarcity, choice, and opportunity cost; supply and demand; welfare economics; household and firm behavior; competition and monopoly; resource markets. Credit may not be earned in more than one of ECO 202 and ECO 203. This course is approved for offering in a distance learning format.

ECO 203 Microeconomic Principles for Business 3(3-0)
Introduction to economic decision-making by consumers and managers within a market system. Topics include supply, demand, elasticity, production, costs, price, market structure, and resource markets. Credit may not be earned in more than one of ECO 203 and ECO 202. Prerequisites: BUS 100, admission to Professional Business Studies.

ECO 204 Principles of Macro- and Global Economics 3(3-0)
Introduction to GDP, inflation, unemployment, business cycles, interest rates, money and banking, monetary and fiscal policy, economic growth, international trade for business students. Credit may not be earned in more than one of ECO 201 and ECO 204. Prerequisites: ECO 203, Tier 1 continuing admission to Professional Business Studies.

ECO 211 Economics of Professional Team Sports 3(3-0)
Study of the economics and industrial relations systems of professional sports leagues in baseball, football, basketball, and hockey in North America.

ECO 213 Economics for Entrepreneurs 3(3-0)
Introduction to the economic way of thinking and its applications to decision-making in the business world. Emphasis on understanding and applying economic concepts. Identical to ENT 213. Credit may not be earned in more than one of these courses. Does not count as credit for the Economics major or minor.

ECO 222 Behavioral Economics 3(3-0)
Examines the roles of self-interest, altruism, expectations and information in individual and group decision-making. In-class experiments simulate market behavior and test theoretical predictions. (Group III-A)

ECO 230 Women in the Economy 3(3-0)
A study of the past and present role of women in the economy, as workers, both inside and outside the labor market. Identical to WST 230. Credit may not be earned in more than one of these courses. (Group IV-A)

ECO 280 Economics of the World 3(3-0)
Overview of economies, with emphasis on comparison of their economic performance, the system used for production and distribution, and economic agreements among nations. (Group III-B)

ECO 281 Economic Development of the Pacific Rim 3(3-0)
Rapid development of Pacific Rim economies and its impact on our economy is studied. The roles of history and culture in economic policy are studied. (Group IV-B)

ECO 285 Statistical Methods in Economics 3(3-0)
Fundamental statistical techniques emphasizing application of statistical methods to economic analysis, index numbers, seasonal and cyclical variation in economic data. Prerequisites: ECO 201 or ECO 204 or ECO 213 or ENT 213; math competency.

ECO 301 Environmental Economics 3(3-0)
Basic economic understanding of environmental/ecological problems arising from a free enterprise system. Economists’ solutions presented without advanced economic theory or mathematical computation. Recommended: ECO 202 or 203 or permission of instructor.

ECO 306 Money and Banking 3(3-0)
The nature of money and credit; history, structure, and functions of banking institutions, with emphasis upon Federal Reserve System and questions of appropriate public policy. Prerequisites: ECO 201 or ECO 202 or ECO 203.

ECO 310 American Economic Development 3(3-0)
Realistic interpretation, with emphasis on economic change and its significance in social, cultural, and political evolution. Recommended: ECO 201 or ECO 202 or ECO 203.

ECO 320 European and Asian Economic History 3(3-0)
Realistic introduction to the diverse economic experiences of advanced European and Asian nations from the British industrial revolution to the present. Recommended: ECO 201 or ECO 202 or ECO 203.

ECO 350 Law and Economics 3(3-0)
Theory and application of analytical tools of law and of economics in an integrative approach to both subjects. Identical to BLR 350. Credit may not be earned in more than one of these courses. Prerequisites: BLR 225 or ECO 202 or ECO 203.

ECO 360 Public Economics 3(3-0)
Appropriate and actual roles of government in market economies, and how government influences the use of resources and distribution of income. Prerequisites: ECO 202 or ECO 203.

ECO 365 Intermediate Microeconomic Theory 3(3-0)
An intensive treatment of the theories of supply and demand, consumer and producer behavior, market structure, and other micro theories and issues. Prerequisite: ECO 202 or 203.

ECO 370 Intermediate Macroeconomic Theory 3(3-0)
National income accounting; income, employment, interest rate and inflation theory and policy; theory and problems of economic growth. Prerequisites: ECO 201 or ECO 202 or 203.

ECO 372 International Economics 3(3-0)
Basic background in international trade theory and practices, exchange rates and balance of payments, and international monetary arrangements. Prerequisites: ECO 201 or ECO 202 or ECO 203.

ECO 375 Economics of Cities and Regions 3(3-0)
Elementary theories of regional economic analysis used in solving specific problems such as pollution, housing, segregation, and conservation. Emphasizes urban regions. Prerequisites: ECO 201 or ECO 202 or ECO 203.

ECO 380 Comparative Economic Systems 3(3-0)
Comparative study of economic institutions in a world of political-economic change. An analysis of socialism, fascism, socialism, and communism. Recommended: ECO 201 or ECO 202 or ECO 203.

ECO 381 Patterns of Economic Development 3(3-0)
A study of the problems, processes, and theories of economic change in today’s less developed countries. Recommended: ECO 201 or ECO 202 or ECO 203.

ECO 385 Introduction to Econometrics 3(3-0)
Introduction to the theory and practice of linear regression analysis in economics focusing on single equation methods. Extensive computer applications. Prerequisites: ECO 202 or 203; ECO 285 or STA 282 or STA 382.

ECO 397 Special Studies in Economics 1-6(Spec)
Experimental courses to cover materials of special interest not covered by courses in the regular curriculum. Prerequisite: permission of instructor.

ECO 410 Government and Business 3(3-0)
Relations of industry, especially corporations, to government, antitrust laws and policy toward business; problems of unfair competition; patents and trademarks. Prerequisites: ECO 202 or ECO 203.

ECO 411 The Economics of Slavery in the U.S. 3(3-0)
The economic indictment of southern slavery; new challenges to this indictment; implications of the existence of southern slavery for present economic policy decisions. Recommended: ECO 201 or 202.

ECO 414 Labor Economics 3(3-0)
Labor Market operations and wage determination; human capital investment; labor market discrimination; wage differentials; impact of unionization on wages; collective bargaining. Prerequisite: ECO 202 or 203.

ECO 425 The Economics of Industrial Organization 3(3-0)
Concepts, theories, and evidence which relate industry structure to behavior and performance of firms. Provides a basis for evaluating public policy. Prerequisites: ECO 202 or ECO 203. Recommended: ECO 201 or ECO 204.

ECO 430 Views of the Future of the U.S. Economy 3(3-0)
Analysis of economic thought, projections and institutional changes suggested for the future by various schools of thought. Institutional rather than quantitative emphasis. Recommended: ECO 202 or ECO 203.

ECO 440 Managerial Economics 3(3-0)
Application of microeconomic theory to a variety of management decisions such as internal resource allocation, pricing, market entry and the boundaries of the firm. Prerequisite: ECO 201 or ECO 202 or ECO 203.

ECO 490 Economics Internship 1-3(Spec)
Provides a bridge between academic training and work experience. Allows application of principles of economics to a job and job experiences to classes. CR/NC only. Prerequisites: 56 semester hours completed; signed economics major or minor; 12 credit hours of economics (ECO 201 or ECO 204, ECO 202 or ECO 203 and at least one course 300 level or above); overall GPA of 2.75 or higher; prior approval of departmental supervisor.

ECO 503 Seminar in Urban Economics 3(3-0)
Economic aspects of urban regions; their growth; household location; pollution; poverty. Solutions-oriented discussion of urban problems. Complements ECO 504. Recommended: ECO 375 or permission of instructor.

ECO 508 Monetary Theory 3(3-0)
Further development of theories of money supply, money demand, the options of monetary policy, and the effects of monetary policy on the economy. Prerequisite: ECO 306 or ECO 370.

ECO 515 Collective Bargaining and Labor Law 3(3-0)
Development of various phases of labor law, especially under statutes such as the Wagner Act, Taft-Hartley Act, and Landrum-Griffin Act. Prerequisites: ECO 202 or ECO 203. Recommended: ECO 201 or ECO 204.

ECO 532 Economic Forecasting 3(3-0)
Nature and causes of economic fluctuations. Methods of predicting price levels and economic activity. Prerequisites: ECO 201 or ECO 202; ECO 202 or ECO 203.

ECO 535 Fundamentals of Mathematical Economics 3(3-0)
Application of mathematical techniques in economics. Emphasizes marginal analysis, market models, comparative static equilibrium, and maximization. Prerequisites: ECO 365; MTH 132 or MTH 217 or graduate standing in Economics.

Descriptions of courses approved for the University Program appear in italic type.
EDL 572 International Monetary Economics 3(3-0)
International monetary and financial markets are studied. Topics include exchange rate policy, international Capital Flow and purchasing power parity theory. Prerequisites: ECO 372.

EDL 585 Econometrics 3(3-0)
Thorough treatment of statistical estimation methods and their properties for simultaneous equation systems. Also includes discussions of types of systems, solution methods and identification. Prerequisite: STA 580 or equivalent; or permission of instructor.

EDL 590 Seminar Readings 1-3(Spec)
Elective honors course for majors or minors in economics. Recommended: 12 hours of economics with B average.

EDL 591 Seminar Research Studies 1-3(Spec)
Independent study on special problems for majors or minors in economics. Prerequisite: permission of instructor. Recommended: 9 hours of 300- to 500-level economics.

EDL 597 Special Studies in Economics 1-3(Spec)
Elective course to cover material of special interest to both undergraduates and graduates not covered by courses in the regular curriculum. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

EDL 600 Introduction to Advanced Economic Analysis 3(3-0)

EDL 601 Advanced Environmental Economics 3(3-0)

EDL 603 Economic Effects of Urbanization and Technology 3(3-0)

EDL 606 Seminar in Economic History 3(3-0)

EDL 610 Seminar in Economic Thought 3(3-0)

EDL 614 Seminar in Labor Economics 3(3-0)

EDL 616 Advanced Microeconomic Theory 3(3-0)

EDL 619 Continuing Registration for Final Research Project 1(1-0)

EDL 620 Advanced Macroeconomic Theory 3(3-0)

EDL 622 Seminar in Economic Growth and Development 3(3-0)

EDL 625 Firm Behavior and Game Theory 3(3-0)

EDL 630 Comparative Economic Systems 3(3-0)

EDL 640 Special Topics in Economic Issues 3-6(Spec)

EDL 650 American Financial Institutions 3(3-0)

EDL 655 Seminar in International Economics 3(3-0)

EDL 657 Advanced Investment Analysis 3(3-0)

EDL 660 Public Finance and Fiscal Policy 3(3-0)

EDL 670 Research Methods in Economics 3(3-0)

EDL 685 Econometric Applications 3(3-0)

EDL 690 Independent Research 1-3(Spec)

EDL 798 Thesis 1-6(Spec)

EDL 799 Leadership Internship 1-15(Spec)

EDL 800 Advanced Administrative Research 3(3-0)

EDL 825 Firm Behavior and Game Theory 3(3-0)

EDL 830 Comparative Economic Systems 3(3-0)

EDL 840 Special Topics in Economic Issues 3-6(Spec)

EDL 850 American Financial Institutions 3(3-0)

EDL 855 Seminar in International Economics 3(3-0)

EDL 860 Public Finance and Fiscal Policy 3(3-0)

EDL 870 Research Methods in Economics 3(3-0)

EDL 885 Introduction to Problem Solving in Educational Leadership 3(3-0)

EDL 889 Independent Study 1-2(Spec)

EDL 897 Independent Study 1-2(Spec)

EDL 900 Seminar in Economic History 3(3-0)

EDL 904 Seminar in Labor Economics 3(3-0)

EDL 906 Seminar in Economic Growth and Development 3(3-0)

EDL 910 Seminar in Economic Thought 3(3-0)

EDL 914 Seminar in Labor Economics 3(3-0)

EDL 916 Advanced Microeconomic Theory 3(3-0)

EDL 919 Continuing Registration for Final Research Project 1(1-0)

EDL 920 Advanced Macroeconomic Theory 3(3-0)

EDL 922 Seminar in Economic Growth and Development 3(3-0)

EDL 925 Firm Behavior and Game Theory 3(3-0)

EDL 930 Comparative Economic Systems 3(3-0)

EDL 940 Special Topics in Economic Issues 3-6(Spec)

EDL 950 American Financial Institutions 3(3-0)

EDL 955 Seminar in International Economics 3(3-0)

EDL 960 Seminar in Economic History 3(3-0)

EDL 965 Seminar in International Economics 3(3-0)

EDL 970 Research Methods in Economics 3(3-0)

EDL 985 Introduction to Problem Solving in Educational Leadership 3(3-0)

EDL 988 Independent Study 1-2(Spec)

EDL 997 Independent Study 1-2(Spec)

EDL 999 Leadership Internship 1-15(Spec)

Descriptions of courses approved for the University Program appear in italic type.

Educational Leadership (EDL)
See the Department of Educational Leadership for more information.

EDL 565 Principles of Community Education 3(3-0)

EDL 585 Legal Aspects of Student Discipline 3(3-0)

EDL 590 Seminar Readings 1-3(Spec)

EDL 591 Seminar Research Studies 1-3(Spec)

EDL 597 Special Studies in Economics 1-3(Spec)

EDL 598 Independent Study 1-2(Spec)

EDL 599 Independent Study 1-2(Spec)

EDL 600 Introduction to Advanced Economic Analysis 3(3-0)

EDL 601 Advanced Environmental Economics 3(3-0)

EDL 603 Economic Effects of Urbanization and Technology 3(3-0)

EDL 606 Seminar in Economic History 3(3-0)

EDL 610 Seminar in Economic Thought 3(3-0)

EDL 614 Seminar in Labor Economics 3(3-0)

EDL 616 Advanced Microeconomic Theory 3(3-0)

EDL 619 Continuing Registration for Final Research Project 1(1-0)

EDL 620 Advanced Macroeconomic Theory 3(3-0)

EDL 622 Seminar in Economic Growth and Development 3(3-0)

EDL 625 Firm Behavior and Game Theory 3(3-0)

EDL 630 Comparative Economic Systems 3(3-0)

EDL 640 Special Topics in Economic Issues 3-6(Spec)

EDL 650 American Financial Institutions 3(3-0)

EDL 655 Seminar in International Economics 3(3-0)

EDL 657 Advanced Investment Analysis 3(3-0)

EDL 660 Public Finance and Fiscal Policy 3(3-0)

EDL 670 Research Methods in Economics 3(3-0)

EDL 685 Econometric Applications 3(3-0)

EDL 690 Independent Research 1-3(Spec)

EDL 798 Thesis 1-6(Spec)

EDL 799 Leadership Internship 1-15(Spec)

EDL 800 Qualitative Analysis in Educational Leadership 3(3-0)

EDL 825 Firm Behavior and Game Theory 3(3-0)

EDL 830 Comparative Economic Systems 3(3-0)

EDL 840 Special Topics in Economic Issues 3-6(Spec)

EDL 850 American Financial Institutions 3(3-0)

EDL 855 Seminar in International Economics 3(3-0)

EDL 860 Public Finance and Fiscal Policy 3(3-0)

EDL 870 Research Methods in Economics 3(3-0)

EDL 885 Introduction to Problem Solving in Educational Leadership 3(3-0)

EDL 889 Independent Study 1-2(Spec)

EDL 897 Independent Study 1-2(Spec)

EDL 900 Seminar in Economic History 3(3-0)

EDL 904 Seminar in Labor Economics 3(3-0)

EDL 906 Seminar in Economic Growth and Development 3(3-0)

EDL 910 Seminar in Economic Thought 3(3-0)

EDL 914 Seminar in Labor Economics 3(3-0)

EDL 916 Advanced Microeconomic Theory 3(3-0)

EDL 919 Continuing Registration for Final Research Project 1(1-0)

EDL 920 Advanced Macroeconomic Theory 3(3-0)

EDL 922 Seminar in Economic Growth and Development 3(3-0)

EDL 925 Firm Behavior and Game Theory 3(3-0)

EDL 930 Comparative Economic Systems 3(3-0)

EDL 940 Special Topics in Economic Issues 3-6(Spec)

EDL 950 American Financial Institutions 3(3-0)

EDL 955 Seminar in International Economics 3(3-0)

EDL 960 Seminar in Economic History 3(3-0)

EDL 965 Seminar in International Economics 3(3-0)

EDL 970 Research Methods in Economics 3(3-0)

EDL 985 Econometric Applications 3(3-0)

EDL 990 Independent Research 1-3(Spec)

EDL 798 Thesis 1-6(Spec)

EDL 799 Leadership Internship 1-15(Spec)

EDL 800 Qualitative Analysis in Educational Leadership 3(3-0)

EDL 801 Quantitative Analysis in Educational Leadership 3(3-0)

EDL 810 Ethics in Educational Leadership 3(3-0)

EDL 815 Ethical Leadership 3(3-0)

EDL 825 Culture Educational Org 3(3-0)

EDL 855 Organizational Culture and Change in Educational Institutions 3(3-0)

EDL 860 Organizational Theory in Educational Institutions 3(3-0)

EDL 865 Organizational Change in Educational Institutions 3(3-0)

EDL 870 Issues in Educational Leadership 3(3-0)

EDL 876 Higher Education Policy 3(3-0)

EDL 880 Doctoral Internship 3-6(Spec)

EDL 885 Problem Solving in Educational Leadership 3(3-0)

EDL 886 Advanced Problem Solving in Educational Leadership 3(3-0)

EDL 897 Dissertation Colloquium 3(3-0)

EDL 898 Dissertation 1-15(Spec)

EDL 899 Doctoral Seminar 3-6(Spec)
Teacher Education (EDU)

See the Department of Teacher Education and Professional Development for more information.

EDU 107 Introduction to Teaching 3(3-1)
An introductory course designed to provide prospective teacher education students with the opportunity to explore the teaching profession; includes 10 hours of field experience.

EDU 213 Pre-professional Practicum In Bilingual Bicultural Education 2(1-3)
A pre-professional field experience which requires observation in a bilingual classroom and tutoring individual or small groups of bilingual students.

EDU 280 Education of Children 3(3-0)
Growth and development of the child, prenatal to adolescent. Includes application to educational settings. Not open to freshmen. Prerequisite: EDU 107.

EDU 290 Technology in Education 3(1-4)
Students will learn to operate various technology-based equipment; select and assess instructional media materials, coursework, and software; and integrate technology and media into K-12 instruction.

EDU 310 Psychological Foundations of Education 3(3-0)
Principles of learning, adolescent development and behavior, mental health; emphasis on application to teaching. Prerequisite: admission to Teacher Education program.

EDU 320 Elementary Mathematics Methods 3(3-0)
Prepares the pre-service teacher with the abilities to teach mathematics at the elementary and middle school levels, using empirically supported content, materials, methods, and organization. Prerequisites: EDU 280, (students with a major in "teachers of students with emotional impairment" or a major in "teachers of students with cognitive impairment" are required to have SPE 126 & PSY 220); MTH 151, satisfying the University Mathematics Competency, admission to Teacher Education Program. Pre- or co-requisite: MTH 152.

EDU 325 Middle Level and High School Teaching Methods 3(3-0)
This course is designed to prepare students to design, deliver, and evaluate middle school, junior high and high school instruction. Prerequisites: admission to Teacher Education. Pre- or corequisite: EDU 310

EDU 330 Reading in the Elementary School 3(3-0)
Materials, organization, and methods of teaching reading in the elementary school to address the Michigan and national literacy standards and benchmarks. Prerequisites: EDU 280 (students with a major in "teachers of students with emotional impairment" or a major in "teachers of students with cognitive impairment" are required to have SPE 126 & PSY 220). Requires admission to Teacher Education program.

EDU 343 Social Studies Methods in Elementary Education 3(3-0)
Objectives, content, materials, organization, and methods of teaching social studies in the elementary school. Prerequisites: HEV 100 or PSY 220; EDU 290 (students with emphasis on the emotionally impaired and mentally impaired are required to have SPE 126 & PSY 220); and admission to Teacher Education.

EDU 345 Science Methods in Elementary Education 3(3-0)
Objectives, content, materials, organization, and methods of teaching science in the elementary school. Prerequisites: HEV 100 or PSY 220; EDU 290 (students with emphasis on the emotionally impaired and mentally impaired are required to have SPE 126 & PSY 220); and admission to Teacher Education.

EDU 361 Midtier Practicum 2(1-2)
Preservice teachers will gain practical experience through observing, interacting, collaborating, and teaching in a pre-K-12 classroom setting. Identical to MLE 361. Credit may not be earned in more than one of these courses. Prerequisites: admission to Teacher Education; successful completion (C+ or higher) of EDU 280 or HEV 100 or PSY 220.

EDU 431 Corrective Reading in the Classroom 3(3-0)
Classroom diagnosis of students' reading strengths and weaknesses. Analysis of corrective and remedial techniques. All candidates for the elementary certificate are required to take this course. Prerequisite: EDU 330.

EDU 432 Student Teaching Seminar 3(3-0)
This course reinforces the components of the CLEAR Conceptual Framework as it pertains to transferring theory to practice while students are in student teaching. Prerequisite: students must have completed the requirements for student teaching and be enrolled in EDU 458, Student Teaching, as a component of the Elementary or Secondary Certification requirements for the Pre-K-12 Regular Education and Special Education teacher education programs.

EDU 450 Content Area Literacy 3(3-0)
Study and development of teaching strategies to improve literacy (reading, writing, and thinking for learning) in all disciplines. Prerequisites: admission to Teacher Education; EDU 510; Pr- or Corequisite: EDU 325 or a music pedagogy course appropriate to the program for students seeking the Bachelor of Music Education degree.

EDU 458 Student Teaching 1-10(Spec)
This experiential course in which students integrate theory into practice is the field-based culminating activity of the PreK-12 regular education teacher education program. CR/NC only. Prerequisites: Admission to Teacher Education and completion of all Cycle A requirements of the mentoring program plus the following criteria based on the specific certification requirements: Elementary: - A CMU overall GPA of 2.70 or higher - Department approval of major(s) and minor(s) for teaching in content areas - C- or higher in all professional education and methods courses taken before student teaching - Courses REQUIRED to be completed before student teaching: EDU 107, EDU 290 and PSY 220 (Special Education Majors must take PSY 220), EDU 290 (EDU 290 not required for Special Education majors), EDU 330, EDU 340, EDU 345, EDU 561, EDU 431, EDU 493, EDU 495 and SPE 504 and all major and minor requirements listed in the bulletin (additional requirements for Special Education Majors: SPE 455 and SPE 456 or SPE 458)

Secondary: - A CMU overall GPA of 2.70 or higher - Department approval of major(s) and minor(s) for teaching in content areas - C- or higher in all professional education and methods courses taken before student teaching - Courses REQUIRED before student teaching: EDU 107, EDU 290, EDU 510, EDU 325 (not required for Music Majors), EDU 450, EDU 495, SPE 504 and all major and minor requirements listed in the bulletin (additional requirements for Special Education Majors: SPE 455 and SPE 456 or SPE 458)

EDU 493 Learning and Evaluation in Elementary Education 3(3-0)
Theories, purposes, materials, and problems related to learning and the measurement and evaluation of learning. Includes a unit on mental health. Prerequisites: EDU 280 (students with a major in "teachers of students with emotional impairment" or major in "teachers of students with cognitive impairment" are required to have SPE 126 & PSY 220); and at least one of the following: EDU 520, 330. Requires admission to Teacher Education Program.

EDU 495 Foundations of Education 3(3-0)
Examines historical events and philosophical bases of American education. Major emphasis on political and legislative activities, social issues, and economic developments affecting the schools. Prerequisite: admission to Teacher Education program required (except for students not on teacher certification curricula).

EDU 505 Diagnostic Literacy Assessments & Instruction: K-3 3(3-0)
Diagnostic literacy assessments will be introduced including appropriate administration, data analysis, and related instructional practices. State literacy assessment certification: MLPP K-3. Prerequisites: EDU 330 or graduate status.

EDU 506 Principles and Techniques for Individualizing Instruction 3(3-0)
Examination of individualized instruction and its classroom implications. Prerequisite: EDU 530 or EDU 340.

EDU 508 Education Workshop 1-6(Spec)
Identification and study of problems in contemporary education.

EDU 513 Foundations of Bilingual Bicultural Education 3(3-0)
Sociocultural and psychological foundations, principles and practices of bilingual bicultural education. Prerequisite: EDU 280 or EDU 310.

EDU 514 Methods and Materials for Bilingual Bicultural Education 3(3-0)
Teaching methodologies, selection, adaptation and utilization of instructional materials, and testing and measurement for the bilingual Spanish or Ojibwe classroom (K-12). Prerequisite: EDU 520 or EDU 310.

EDU 518 Creativity in the Elementary School 3(3-0)
Develops understanding of the creative process. Teaching strategies to encourage creativity in all subjects will be stressed.

EDU 520 Driver Education I 2(2-1)
Methods and materials in teaching driving and automobile safety. Prerequisite: two years of conviction-free driving.

EDU 524 Driver Education II 2(1-2)
Defensive driving, traffic safety, highway engineering, law enforcement, field problems, research, practice teaching. Prerequisite: EDU 520.

EDU 525 Early Childhood Education 3(3-0)
Content, methods, materials, and curriculum planning for teaching pre-kindergarten through primary grades.

EDU 526 Orientation and Overview of Early Childhood Programs 1(1-0)
History issues, trends, and development of early childhood program. Focus on the preschool movement, controversies, contributions, and survey of basic principles of development.

EDU 527 Introduction to Early Childhood Curriculum Materials and Methods 1(1-0)
Organization of educational programs, selection, planning, use and care and evaluation of materials in preschools. Methods appropriate to group needs and interests.

EDU 528 Emergent Literacy: Theory and Practice 3(3-0)
Analysis of literacy development in preschool through primary grades. Methods, materials, organization, assessment and evaluation techniques for fostering beginning reading and writing consistent with current research. Prerequisites: EDU 330.
## EDU Courses

**EDU 530 Driver Education III 2(2-0)**
- Analysis of traffic problems, behavioral and personality characteristics of drivers.

**EDU 532 Reading in the Content Areas 3(3-0)**
- Emphasizes teaching of reading skills in content areas focusing on the middle and upper grades. Prerequisites: EDU 530 or EDU 516.

**EDU 533 Diagnosis and Treatment of Reading Difficulties 3(2-3)**
- Diagnostic procedures and use of remedial and developmental techniques. Exploration of the role of the specialist. Prerequisites: EDU 431, 532; Pre or Co-requisite: EDU 538.

**EDU 534 Current Issues in Teaching Driver Education 2(2-0)**
- Students will develop an understanding of accident prevention issues, police policies, visual and audio resources, accident statistics, highway engineering policies and substance abuse issues. Prerequisite: EDU 520, EDU 524 or concurrent enrollment in either.

**EDU 538 Coordination of the Language Arts with Reading 3(3-0)**
- Building the elements of speaking, listening, writing, and reading into a K-8 language arts program. Techniques of instruction for the exceptional child will be examined. Prerequisite: EDU 330.

**EDU 540 Literacy Education: Theory and Practice 3(3-0)**
- Emphasizes balanced literacy philosophy, components, classroom management, and organization, literature-based reading, authentic writing contexts, skill integration, thematic teaching, at risk populations and evaluation. Prerequisites: EDU 330.

**EDU 542 Interdisciplinary Processes and Strategies in Teaching Reading, Writing, 3(3-0)**
- This course will reinforce content teaching strategies and provide a conceptual framework for integrating reading, writing, and thinking for learning throughout the curriculum. Prerequisites: EDU 450 or EDU 532 or equivalent.

**EDU 556 Meeting the Socio-Emotional Needs of Young Children 2(2-0)**
- Analysis of the social-emotional developmental and behavioral processes of young children including attitudes, aggression, achievement, dependency, fear, morality, self-concept, and implications of teaching.

**EDU 557 Cognitive and Psycho-motor Experiences for Young Children 3(3-0)**
- Survey of psycho-motor and cognitive stages of development. Assessment of cognition and psycho-motor repertoires, concepts of intelligence, motor skills and development of an appropriate sequence of activities.

**EDU 566 Independent Study in Elementary Education 1-6(Spec)**
- Research or project. Prerequisites: 15 semester hours of professional education and approval of unit coordinator.

**EDU 567 Home Environment Practicum of Early Childhood 1(1-0)**
- Field-based experience in planning, implementing, and evaluating the dynamics of home visitsations. Interpretation of program goals, objectives, and philosophies. Interview techniques, follow-up evaluation, and implications.

**EDU 568 Human Ecology for Improving Relations in School and Community 2(Spec)**
- Improvement of parent-school-community relations through parent education, involvement and interaction in the early childhood teaching-learning process. Cross-cultural and community center focus.

**EDU 590 Advanced Technology in Education 3(2-3)**
- Students will study and practice the integration of technology in classroom instruction and management, with emphasis upon software evaluation and lesson design. Identical to SPE 510. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: EDU 290 or Graduate Status. Recommended: Permission of instructor.

**EDU 595 Telecommunication in Education 3(2-2)**
- The study and laboratory exploration of telecommunication as used in schools and classrooms: e-mail, educational and general networks, collaborative lessons. Prerequisites: EDU 590 or equivalent with permission of instructor. This course is approved for offering in a distance learning format. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

**EDU 602 Strategies and Techniques for Teaching 3(3-0)**

**EDU 604 Developing and Utilizing Behavioral Objectives 3(3-0)**

**EDU 605 Elementary School Curriculum 3(3-0)**

**EDU 608 Projects in Education 1-6(Spec)**

**EDU 609 History of Education 3(3-0)**

**EDU 611 Philosophy of Education 3(3-0)**

**EDU 613 Current Educational Issues 3(3-0)**

**EDU 614 Advanced Educational Psychology 3(3-0)**

**EDU 619 Continuing Registration for Final Research Project 1(1-0)**

**EDU 620 Problems of Teaching Mathematics in the Elementary School 3(3-0)**

**EDU 622 Advanced Adolescent Psychology 3(3-0)**

**EDU 625 Child Management in Early Childhood 2(2-0)**

**EDU 628 Senior High School Programs and Practices 3(3-0)**

**EDU 630 Organization and Implementation of School Literacy Programs 3(3-0)**

**EDU 632 Practicum in the Diagnosis and Treatment of Difficulties in Literacy 6(Spec)**

**EDU 633 Clinical Practice in Reading 3(1-4)**

**EDU 635 Problems in Language Arts in the Elementary School 3(3-0)**

**EDU 636 Classroom Reading and Writing Instruction 3(3-0)**

**EDU 637 Administration of Instructional Media Services 3(Spec)**

**EDU 639 Instructional Materials and Curriculum Production 3(Spec)**

**EDU 640 Problems in Social Studies in the Elementary School 3(3-0)**

**EDU 641 Interdisciplinary Processes and Strategies for Teaching Literacy 3(3-0)**

**EDU 642 Instructional Multimedia 3(3-0)**

**EDU 643 Instructional Design 3(3-0)**

**EDU 644 Early Childhood Concept Development Through Integrated and Creative 3(3-0)**

**EDU 645 Problems in Science in the Elementary School 2(2-0)**

**EDU 651 Supervision of Student and Intern Teaching 3(3-0)**

**EDU 653 The Read/Write Web 3(3-1)**

**EDU 655 The Community College 3(3-0)**

**EDU 658 Practicum in the Community College 3-6(Spec)**

**EDU 660 Methods of Educational Research 3(3-0)**

**EDU 662 Applied Educational Measurement and Evaluation 3(3-0)**

**EDU 670 Reading in the Secondary School II 3(Spec)**

**EDU 682 Psychology of Child Development 3(3-0)**

**EDU 687 Independent Study 1-3(Spec)**

**EDU 688 Independent Study 1-3(Spec)**

**EDU 689 Independent Study 1-3(Spec)**

**EDU 695 Readings in Education 2(Spec)**

**EDU 698 Thesis 1-4(Spec)**

**EDU 705 Theory and Practice in Curriculum Development 3(3-0)**

**EDU 706 Theory and Practice of Instruction 3(3-0)**

**EDU 707 Seminar: Issues in Educational Technology 3(3-0)**

**EDU 708 Distance Education 3(3-0)**

**EDU 709 Innovative Uses of Technology 3(3-0)**

**EDU 710 Seminar: Terminal Project 3(3-0)**

**EDU 730 Seminar: Issues in Literacy 3(3-0)**

**EDU 755 Advanced Research Design and Interpretation 3(3-0)**

**EDU 765 Seminar in Curriculum Problems 3(3-0)**

**EDU 770 Practicum in Systematic Curriculum Development 3(3-0)**

**EDU 776 Seminar: Issues of Education 3(3-0)**

**EDU 777 Seminars in Child Growth and Development 2-4(Spec)**

**EDU 780 Master of Arts Capstone Seminar 3(3-0)**

### Engineering (EGR)

See the Department of Engineering & Technology for more information.

**EGR 120 Introduction to Engineering 3(3-0)**
- A general introduction to mechanical and electrical engineering with an emphasis on problem solving, engineering tools, engineering design processes, and teamwork. Recommended: MTH 106 or higher.

**EGR 190 Digital Circuits 3(3-0)**
- Boolean algebra, logic functions, truth tables and Karnaugh maps, combinational circuits, sequential circuits, programmable logic devices, and finite state machines. Prerequisites: EGR 120, MTH 132 or higher.

**EGR 251 Engineering Statics 3(3-0)**
- The course will cover free body diagrams and equilibrium of particles and rigid bodies, internal forces in machines, and beams, friction, and application to machines. Prerequisites: MTH 132; PHY 145; pre- or co-requisite: EGR 120.

**EGR 253 Engineering Dynamics 3(3-0)**
- Fundamentals of engineering dynamics covering kinematics and kinetics of particles and rigid bodies. Prerequisites: EGR 251 with grade of C- or better, MTH 133.

**EGR 255 Strength of Materials 3(3-0)**
- Introductory course in mechanics of materials that covers mechanical stress and strain, deformations, torsion, bending and shear stresses, and deflections of beams. Prerequisites: EGR 251 with grade of C- or better, MTH 133.

Descriptions of courses approved for the University Program appear in italic type.
EGR 290 Circuit Analysis I 3(3-0)
Introduction to circuit elements, variables, resistive circuits, circuit analysis techniques, network theorems, inductance and capacitance, sinusoidal steady state analysis and power calculations. Prerequisites: MTH 133; PHY 145 Co-requisite: EGR 120.

EGR 292 Circuit Analysis II 3(3-0)
First- and second-order circuits, Laplace circuit analysis, transfer function, step and impulse, and responses, filters, Fourier series, Fourier transform, and two-port circuits. Prerequisite: EGR 290 Co-requisite: MTH 232 or 334.

EGR 295 Microelectronic Circuits I 3(3-0)
Introduction to nonlinear circuit elements, operation, design and analysis of circuits at the transistor level. Prerequisite: EGR 290.

EGR 355 Engineering Materials 3(3-0)
Covers fundamentals of engineering materials including metals, alloys, ceramics, polymers, and composites. Materials processing, properties and selection, and their role in design are also introduced. Prerequisites: CHM 131 or 161, EGR 251 with grade of C- or better, MTH 132, PHY 146.

EGR 356 Thermodynamics I 3(3-0)
Fundamentals of engineering thermodynamics are covered which include: general energy concepts, first and second laws of thermodynamics, entropy, processes, power cycles and refrigeration cycles. Prerequisite: CHM 131 or 161, EGR 251 with grade of C- or better, MTH 133, PHY 146.

EGR 358 Fluid Mechanics 3(3-0)
Study of the principles of fluid statics and dynamics including Bernoulli's equation, control volume analysis, similitude, dimensional analysis, viscous flow, and flow over immersed bodies. Prerequisites: EGR 253, MTH 133.

EGR 359 Machine Design I 3(3-0)
The study of relative motion of machine parts, forces acting on them, and motions resulting from these forces. Prerequisites: EGR 253, IET 154, MTH 233.

EGR 360 Solid Mechanics Laboratory 3(1-4)
Experimental skills and measurement techniques are developed in the areas of material behavior, static and dynamic stress and strain analysis. Prerequisites: EGR 253, 255, PHY 175. Pre or co-requisite: EGR 355.

EGR 371 Robotics & Automation 3(2-2)
An introduction to the theory and application of robotics including robot fundamentals, kinematics, trajectory planning, actuators, sensors, and industrial robot programming. Prerequisites: CPS 180, EGR 251, EGR 290, MTH 232.

EGR 391 Signal and System Theory 3(3-0)
Continuous and discrete-time linear systems, time and frequency domain analysis of signals and systems, Laplace, Fourier and z-transforms. Application to problems in electrical engineering. Prerequisite: EGR 292.

EGR 392 Microelectronic Circuits II 3(3-0)
Design and analysis of electronic circuits including: single/multistage transistor amplifiers, op amp circuits, feedback amplifiers, filters, A/D and D/A converters. Prerequisite: EGR 298.

EGR 393 Circuit Lab 3(1-4)
Basic experimentation consistent with the theory in EGR 190, EGR 290 and EGR 292. Use laboratory equipment to investigate electrical and digital circuits. Prerequisite: EGR 190 Pre- or Co-requisite: EGR 292.

EGR 394 Computer Circuit Simulation 3(2-2)
This course reinforces basic circuit analysis principles using PSpice software and teaches students various computer circuit analysis and design techniques. Pre- or Co-requisite: EGR 392.

EGR 396 Microprocessor Fundamentals 3(3-0)
Introduction to architecture, operation, and application of microprocessor systems and microcontrollers. Prerequisites: CPS 180, EGR 190.

EGR 397 Special Topics in Engineering 1-6(Spec)
Intensive study of selected engineering topics not included in a regular course. Repeatable up to 6 hours when content previously studied is not duplicated. Prerequisite: Permission of instructor.

EGR 398 Microelectronics and Computer Lab 3(2-2)
Laboratory exploration of semiconductor devices, discrete and integrated amplifiers; feedback; microcomputer systems including input/output, assembly language programming and interrupt processing. Pre or Co-requirements: EGR 392, 396.

EGR 437 Directed Research in Engineering 1-6(Spec)
Project research under guidance of a faculty advisor to focus on a topic of current interest. Self-directed readings, analysis, computer simulations and/or experimental techniques. Prerequisite: Permission of instructor.

EGR 453 Vibration 3(3-0)
Introduction to concepts such as natural frequency, damping, resonance. Free and forced vibrations of undamped and damped, single-degree of freedom, multi-degree of freedom systems. Prerequisites: EGR 253, MTH 232.

EGR 456 Thermodynamics II & Heat Transfer 3(3-0)
Continuation of engineering thermodynamics and fundamentals of heat transfer. Topics covered include combustion and gas mixing, steady state and transient heat conduction, convection, and radiation. Prerequisites: EGR 356, 358, MTH 233.

EGR 458 Measurement and Instrumentation Laboratory 3(1-4)
Theory and application of mechanical measurements, instrumentation, and computer-based data acquisition. Prerequisites: EGR 290, EGR 355, EGR 360; STA 382.

EGR 459 Machine Design II 3(3-0)
Theories of static and dynamic failure, fatigue design, and design of mechanical elements such as gears, shafts, bearings, fasteners, welded joints, and other mechanical elements. Prerequisites: EGR 255, EGR 355, EGR 359.

EGR 460 Thermal Fluids Laboratory 3(1-4)
Experimental skills and measurement techniques are reinforced in the areas of fluid flow, thermodynamics, and heat transfer using modern sensors, instrumentation, and data acquisition systems. Prerequisite: EGR 358 Pre or co-requisite: EGR 456.

EGR 476 Mechanics of Composite Materials 3(3-0)
Introduction to composite materials mechanics with emphasis on selection, analysis, and use. Stiffness and strength theories for uniaxial and multidirectional materials, with a macromechanical emphasis. Prerequisites: EGR 255, 355, MTH 232.

EGR 477 Finite Element Analysis 3(3-0)

EGR 478 Advanced Mechanics of Materials 3(3-0)
Stress and strain in three dimensions, constitutive laws, failure theories. Beams on elastic foundations, curved bars, inelastic behavior, instability, plates and shells, energy methods. Prerequisites: EGR 255, 355; MTH 232.

EGR 479 Fracture and Fatigue Analysis 3(3-0)
Fracture mechanics and fatigue crack nucleation and propagation, stress intensity factors, fracture toughness and design philosophy concepts. Fracture and fatigue tests. Statistical and reliability analysis. Prerequisites: EGR 255, 355; MTH 232; STA 382.

EGR 489 Senior Design I 3(2-2)
First course in the senior capstone design sequence integrating design methods and engineering techniques in the context of a realistic engineering project. Prerequisites: Senior standing with successful completion in all required 200 and 300 level EGR courses in a declared engineering major; or department chair approval.

EGR 490 Computer Data Acquisition & Instrumentation 3(3-0)
Introduction to data acquisition using A/D converters; fundamentals of transducers; dynamic response; amplifiers; theory of A/D and D/A converters; error analysis-statistics. Prerequisites: EGR 396, STA 382.

EGR 491 CMOS Circuit Design 3(3-0)
Design of analog circuits and systems applying modern integrated circuit technology; operational amplifiers, differential amplifiers, active filters, voltage references and regulators. Prerequisites: EGR 292, 392.

EGR 492 Automatic Control Systems 3(3-0)
Theory and design of automatic control systems including control system characteristics, system stability analysis, frequency response analysis, PID controller design with introduction to state-space design. Prerequisite: EGR 391.

EGR 494 Power Electronics 3(3-0)
Operating characteristics of Bipolar Junction Transistors, IGBTs, MOSFETs and Thyristors, power converters, ac/dc rectifiers and dc/ac inverters. Prerequisite: EGR 392.

EGR 496 Communication Systems 3(3-0)
Overview of communication systems, Hilbert transform, analog AM/FM (de) modulation, probability and noise in analog communications, A/D conversion, digital pulse and carrier (de)modulation, introductory information theory. Prerequisites: STA 392; EGR 391.

EGR 497 Introduction to VLSI Systems 3(3-0)
CMOS process technologies, CMOS logic families, custom and semi custom design. Subsystem design of adders, counters and multipliers. System design methods and VLSI design tools. Prerequisite: EGR 491.

EGR 498 Introduction to Electromagnetics 3(3-0)
A study of static and time-varying electric and magnetic fields, plane waves, guided waves, transmission line theory, radiation and antennas. Prerequisites: EGR 292; MTH 232, 233; PHY 146.

EGR 499 Senior Design II 3(1-4)
Second course in the senior capstone design sequence integrating design methods and engineering techniques in the context of a realistic engineering project. Must be taken in the semester immediately following EGR 489. Prerequisite: EGR 489.

Descriptions of courses approved for the University Program appear in italic type.
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ENG 199 American Language for International Students: Speech Component 3(3-0)
Theory and process of human communication. Practice in developing oral communication skills. Alternate to COM 101. Credit may not be earned in more than one of these courses.

ENG 201 Interimence Composition 3(3-0)
An intensive writing course intended to prepare students for writing in their upper level major courses and beyond. Prerequisite: Grade of C or better in ENG 101 or its equivalent.

ENG 234 Introduction to Literary Analysis 3(3-0)
Intensive study of perspectives for interpreting and evaluating texts of various literary genres, such as narrative, fiction, drama, and poetry.

ENG 235 English Literature: Beginning to Romantic Period 3(3-0)
Beginning to Romantic Period. Primarily for sophomores; open to freshmen. (Group I-A)

ENG 236 English Literature: Romantic Period to Present 3(3-0)
Romantic period to present. Primarily for sophomores; open to freshmen. (Group I-A)

ENG 251 American Literature: Colonial Through the Romantic Period 3(3-0)
Emphasis on major writers and trends. Primarily a sophomore course but open to freshmen. (Group I-A)

ENG 252 American Literature: Realistic Period to the Present. 3(3-0)
Emphasis on major writers and trends. Primarily a sophomore course but open to freshmen. (Group I-A)

ENG 260 Introduction to General Semantics 3(3-0)
Examines the language assumptions underlying communication and surveys the evaluations which result from a failure to understand the symbolizing process.

ENG 261 Masterpieces of Ancient Literature 3(3-0)
Major world literature to the medieval period including Greek and Roman works. (Group I-A)

ENG 262 Masterpieces of European Literature 3(3-0)
Significant works of medieval and modern periods. (Group I-A)

ENG 271 Modern Grammar 3(3-0)
Linguistic description of the grammar of standard American English. Prerequisites: Grade of “C” or better in ENG 101, ENG 103/099 or ENG 198 or permission of the instructor.

ENG 294 Introduction to Creative Writing 3(3-0)
The basic methods and techniques in writing poetry and fiction. Prerequisite: ENG 101.

ENG 299 Writing Workshop II 1-3(Spec)
Writing Center individualized writing workshop; assistance in planning, drafting, and revising writing, grammar, citations, etc. May be repeated for three hours, one credit per semester. CR/NC Only. Prerequisite or Co-requisite: enrollment in at least one other CMU course.

ENG 301 Nonfiction Writing 3(3-0)
Emphasis on skillful writing through individual projects in nonfiction prose forms. Prerequisite: none.

ENG 303 Technical Writing 3(3-0)
Writing technical documents common in business, industry, government agencies, and non-profit organizations, e.g., reports, proposals, and instructions. Emphasis on readability, accessibility, suitability, and usability. Prerequisites: A grade of C or better in ENG 101, ENG 103/099 or ENG 198; grade of C or better in ENG 201.

ENG 311 Teaching Literature in the Secondary School 3(3-0)
Methods of teaching students to read extensively and critically. Prerequisites: ENG 101 or 103/099 or 198 with a grade of C or better; ENG 201 with a grade of C or better; acceptance to the Teacher Education Program; must have completed 56 credit hours.

ENG 315 Teaching Writing in the Elementary School 4(3-1)
Developing methods and constructing materials for teaching writing, developing ways to integrate writing across subject areas, practicing these methodologies through mid-ter experiences. Prerequisite: junior or senior standing; acceptance to Teacher Education program preferred.

ENG 319 Teaching Composition in the Secondary School 4(3-1)
Methods for teaching students to communicate clearly in writing. Open only to juniors and seniors preparing to teach. Prerequisite: students must be accepted into the Teacher Education program.

ENG 321 20th Century British and American Poetry 3(3-0)
Study of major twentieth-century poets such as Yeats, Frost, Williams, Pound, Eliot, and more recent poets; examination of significant trends. Prerequisites: Grade of C or better in ENG 101, ENG 103/099 or ENG 198 and ENG 201; or permission of instructor.

ENG 323 Fantasy and Science Fiction 3(3-0)
History, meaning, and influence of fantasy and science fiction. Emphasis on 19th - 21st century literature and film. This course is approved for offering in a distance learning format. Prerequisites: A grade of C or better in ENG 101. (Group I-A)

ENG 324 Popular Culture in America 3(3-0)
Historical and other relationships between popular and elitist art forms; the role of popular arts in the growth of American culture. Prerequisites: ENG 101 or ENG 103/099 or ENG 196 with a grade of C or better; ENG 201 with a grade of C or better.

ENG 325 Folklore 3(3-0)
Discussion and comparison of folktales, songs, superstitions and customs preserved in both oral and literary traditions. Prerequisites: ENG 101 or 103/099 or 198 with a grade of C or better; ENG 201 with a grade of C or better.

ENG 326 The Literary Dimensions of Film 3(2-2)
Study of film from the viewpoints of formal literary criticism and cultural history through analysis of original screenplays, genre movies, and adaptations. This course is approved for offering in a distance learning format. (Group I-B)

ENG 327 Women Writers 3(3-0)
Readings in fiction, poetry, and autobiography by women writers of the nineteenth and twentieth centuries, approached through contemporary feminist views. Identical to WST 327. Credit may not be earned in more than one of these courses.

ENG 328 Literature of the American Indian 3(3-0)
A study of Native American literature within its historical context. Prerequisites: ENG 101 or 103/099 or 198 with a grade of C or better; ENG 201 with a grade of C or better.

ENG 329 African American Literature 3(3-0)
Examines the literary and cultural contribution of African Americans from colonial times to present through written and orally communicated poetry, fiction, drama, non-fiction. (Group IV-C)

ENG 330 Mythological Backgrounds of Western Literature 3(3-0)
The origins and development of mythic patterns with major emphasis on the adaptation and interpretation of classical and Northern myths to literary usage. (Group I-A)

ENG 332 Contemporary Literature and Thought 3(3-0)
Readings in contemporary (post-World War II) literary genres relative to contemporary thought. Prerequisites: Grade of “C” or better in ENG 101, ENG 103/099, or ENG 198; Grade of “C” or better in ENG 201.

ENG 333 Literatures of Non-Western Cultures 3(3-0)
Introduction to literatures of non-Western cultures, such as African, Asian, Middle Eastern, Aboriginal, Caribbean, or Latin American. Prerequisites: Grade of “C” or better in ENG 101, ENG 103/099 or ENG 198, Grade of “C” or better in ENG 201; or permission of the instructor.

ENG 334 Literary and Cultural Theory 3(3-0)
Study of historical and contemporary theories of literature and culture with attention to theoretical issues as well as application to literary, cultural, and other theoretical texts. Prerequisites: Grade of “C” or better in ENG 101, ENG 103/099 or ENG 198 or permission of instructor. (Group I-B)

ENG 336 Early Modern English Literature 3(3-0)
Major literary works of the late fifteenth through early seventeenth centuries in England (excluding Shakespeare), with special emphasis on social, philosophical, religious, economic and political backgrounds. Prerequisite: ENG 234.

ENG 339 Victorian Literature and Thought 3(3-0)
Social, economic, industrial, philosophical, and religious ideas as expressed in the literature of the nineteenth century.

ENG 340 Modern British Literature 3(3-0)
Selected works in British literature since the 1920s, including poetry, fiction, drama, and general prose.

ENG 345 Studies in Authors 3(3-0)
Intensive reading of one, two or three authors investigating the way a body of work develops and reflects the author’s interests, concerns, and changing literary skills. Prerequisite: ENG 234.

ENG 349 Shakespeare 3(3-0)
Study of 8-12 major comedies, histories, and tragedies, with consideration of their Elizabethan and Jacobean background. Prerequisite to ENG 549.

ENG 351 American Literature: Colonial and Early National Periods 3(3-0)
The various literary genres from the formative years of America.

ENG 352 American Literature: Romantic Period 3(3-0)
Major literary movements and major authors of the first half of the nineteenth century.

ENG 353 American Literature: Realistic Period 3(3-0)
Significant trends in later nineteenth century and early twentieth century American literature; local colorists, major Realists, early Naturalists.

ENG 354 American Literature: Modern Period 3(3-0)
Major literary movements and authors from the early twentieth century to WWII. Special emphasis on modernist and postmodernist movements.

ENG 362 Literature of the Medieval World 3(3-0)
The study of epic tradition during the medieval period and the rise of the romance.

ENG 365 The Bible as Literature 3(3-0)
A study of the content and literary forms of Biblical literature.

Descriptions of courses approved for the University Program appear in italic type.
ENG 371 Pedagogic Grammar 2(2-0)
Links the study of college level grammar and its application in the classroom. Focuses on both professionally written and student generated texts. Prerequisite: junior standing or permission of instructor.

ENG 375 Introduction to Linguistics 3(3-0)
A survey of the field of linguistics, including discussion of the sounds, grammar, and semantics of language.

ENG 379 History and Development of the English Language 3(3-0)
A study of the English language from its origin to the present.

ENG 381 Children’s Literature 3(3-0)
Literary analysis of prose and poetry suitable for children grades K through nine. Prerequisite: Open only to juniors and seniors.

ENG 385 Poetry for Children and Young Adults 3(3-0)
Enhancing appreciation and knowledge of poetry for children and young adults; developing effective ways of presenting this poetry in the elementary/middle school classroom. Prerequisite: junior standing or permission of the instructor.

ENG 391 Creative Writing: Fiction 3(3-0)
Discussion and critical evaluation of student fiction. Prerequisite: Grade of "B" or better in ENG 294 or permission of instructor.

ENG 392 Creative Writing: Poetry 3(3-0)
Discussion and critical evaluation of student poetry. Prerequisite: Grade of "B" or better in ENG 294 or permission of instructor.

ENG 395 Special Topics 1-12(Spec)
Consideration of subjects not listed in the regular department offerings. May be repeated when the content is not a duplication of a previous special topics offering. English majors and minors, see general statement A. Prerequisite: permission of instructor.

ENG 397 Independent Study 1-9(Spec)
Explorations of special problems in language and literature individually agreed upon by student and instructor. Prerequisite: Approval by instructor and department chairperson required before registration.

ENG 402 Argumentation and Exposition 3(3-0)
A study of modern theories and techniques of persuasion and analysis, focusing on their uses in contemporary culture. Prerequisites: two writing courses (ENG 101, ENG 201, or ENG 301).

ENG 435 Studies in Texts 3(3-0)
Intensive reading of one, two or three major literary works in English, with historical and critical backgrounds and biographical and creative contexts. Prerequisite: ENG 234.

ENG 439 English Romantic Poetry and Prose 3(3-0)
Emphasis on Blake, Wordsworth, Coleridge, Keats, Shelley, and Byron. Recommended: 6 hours of literature.

ENG 441 Contemporary English Prose 3(3-0)
Important novelists and dramatists in contemporary United States. Prerequisites: Grade of "C" or better in ENG 101, ENG 103/099 or ENG 198; grade of "C" or better in ENG 201; ENG 134 or 234; or permission of the instructor.

ENG 454 Contemporary American Prose 3(3-0)
Important novelists and dramatists in contemporary United States. Recommended: 6 hours of literature.

ENG 455 The American Novel 3(3-0)
The development of the novel as seen in the works of representative authors. Prerequisites: Grade of "C" or better in ENG 101, ENG 103/099, or ENG 198; Grade of "C" or better in ENG 201; ENG 134 or 234; or permission of the instructor.

ENG 460 Senior Seminar: Current Issues in English 3(3-0)
Explores current scholarly and pedagogical issues culminating in a major creative and/or written academic paper presented orally. Prerequisite: open to senior English majors only.

ENG 481 International Literature for Children and Young Adults 3(3-0)
Exploration of the literary and cultural heritage of countries other than the U.S. through modern and folk literature suitable for today's youth. Prerequisites: ENG 234 or 381.

ENG 482 Fantasy for Youth 3(3-0)
Nature, purpose, and value of fantasy for youth; emphasis on contemporary types. Prerequisites: Grade of "C" or better in ENG 101, ENG 103/099, or ENG 198; Grade of "C" or better in ENG 201; ENG 234 or ENG 381; or permission of instructor.

ENG 491 Advanced Fiction Writing 3-6(3-0)
Concentration upon individual projects in fiction. May be repeated up to 6 hours. Prerequisite: ENG 391 or permission of instructor.

ENG 492 Advanced Poetry Writing 3-6(3-0)
Concentration upon individual projects in poetry writing. May be repeated up to 6 hours. Prerequisites: Grade of "C" or better in ENG 101, ENG 103/099 or ENG 198; grade of "C" or better in ENG 201; ENG 392; or permission of instructor.

ENG 493 Advanced Nonfiction Writing 3-6(3-0)
Concentration on individual projects in nonfiction. May be repeated up to 6 hours. Prerequisite: ENG 301 or ENG 294 or permission of the instructor.

ENG 510 Writing Center Practicum 3(1-4)
Examines the major problems of dealing with less-skilled writers and offers a mediated tutoring experience with such writers. Prerequisite: senior standing or permission of instructor.

ENG 513 Special Topics 1-6(Spec)*
ENG 514 Language and Media Discourse 3(3-0)
Rhetorical theory and techniques in print and non-print media.

ENG 517 Reading and the English Classroom 3(3-0)
The relationship of reading to the teaching of English through an introduction to the reading process, the needs of reluctant readers, and K-12 and ESL literacy issues.

ENG 518 Teaching of Composition 3(3-0)
Research and methodology in the teaching of composition.

ENG 535 History of Literary Criticism 3(3-0)
Review of critical attitudes and approaches of enduring significance. Prerequisite: 6 hours of literature, or permission of instructor.

ENG 539 Seminar in Major Nonfiction Writers 3-9(Spec)
Creative and critical approaches to the study of representative works by selected major writers of literary or creative nonfiction. May be repeated to a maximum of 9 hours. Prerequisites: Graduate status; or ENG 101 or ENG 103/099 or ENG 198; Grade of "C" or better in ENG 201; either ENG 134 or ENG 234; or permission of the instructor.

ENG 545 Chaucer 3(3-0)
Middle English grammar and pronunciation. The life and works of Chaucer with emphasis on the Canterbury Tales and Troilus and Criseyde.

ENG 547 Seminar in Major British Writers 3-9(Spec)
A study of one or more British writers, selected by the instructor. May be repeated for a maximum of nine credit hours. Prerequisites: Graduate status or the following: Grade of "C" or better in ENG 101, ENG 103/099 or ENG 198; Grade of "C" or better in ENG 201; either ENG 134 or ENG 234; or permission of the instructor.

ENG 549 Advanced Shakespeare: Tragedy and Problem Plays 3(3-0)
Examination of the development of Shakespearean tragedy and the final plays. Prerequisite: a previous university course in Shakespeare (ENG 349 or equivalent).

ENG 555 Seminar in Major American Writers 3-9(Spec)
A study of several American writers selected by the instructor. Recommended: 6 hours of American literature. May be repeated to a maximum of 9 hours.

ENG 561 European Romanticism: A Comparative Approach 3(3-0)
Comparative study of representative works written during the Romantic Movement in Europe. Literary themes will be evaluated from an interdisciplinary perspective. (Group IV-A)

ENG 569 Seminar in Major World Writers 3-9(Spec)
A study of major world writers selected by the instructor. Recommended: 6 hours of literature. May be repeated to a maximum of 9 hours.

ENG 570 Old English 3(3-0)
Grammar and pronunciation with readings from literature of the Old English period.

ENG 571 Teaching of English to Speakers of Other Languages 3(3-0)
Principles and techniques for teaching English to students whose first language is not English. Prerequisite: ENG 375 or equivalent.

ENG 573 Linguistics and Reading 3(3-0)
The reading process, the effects of language on reading, the relation between language and writing, and the ways people process information. Prerequisites: ENG 375 or ENG 576.

ENG 574 TESOL Materials, Assessment, Curriculum 3(3-0)
Techniques for designing curricula, teaching materials, and tests and other assessment tools for ESL classrooms. Prerequisites: ENG 571.

ENG 575 Fundamental Issues in Language 3(3-0)
A study of the basic facts of language acquisition, language history, language variation across cultures and social groups, and meaning and reality.

ENG 577 Introduction to Second Language Acquisition 3(3-0)
An introduction to the principles and theories of second language acquisition, and their implications for language teaching. Prerequisites: ENG 375 or permission of instructor.

ENG 578 Applied Sociolinguistics 3(3-0)
Topics include cross-cultural aspects of conversation, speech act theory language and gender, non-verbal behavior. Role of socio-cultural variables in language acquisition will also be discussed. Prerequisites: ENG 375 or permission of instructor.

ENG 579 Topics in English Linguistics 3-9(Spec)
Practical and theoretical problems involving language and its description. May be repeated to a maximum of 9 hours. Prerequisite: ENG 375.

ENG 580 Literature for Young Adults 3(3-0)
Reading interests and library materials of junior and senior high school students; methods of stimulating reading. Subject grouping of books related to adolescent reading interests and needs. Identical to LMT 580. Credit may not be earned in more than one of these courses.
ENG 581 The History of Children’s Literature 3(3-0)
- Major trends in the history of children’s literature as they emerged under certain philosophical, educational, and social influences in England, America, and Europe. Emphasis on literary analysis.

ENG 582 Cultural Pluralism in Young Adult and Children’s Literature 3(3-0)
- The exploration of the literary and cultural heritage of American minorities including Black, Mexican, and Native American, primarily through folk literature, fiction, and biography. Prerequisites: ENG 381 or instructor permission. (Group IV-C)

ENG 583 The Heroic Tradition in Children’s Literature 3(3-0)
- Study of the hero in epic, myth, folklore, and legend; including modern examples.
- For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

ENG 601 Graduate Composition 3(3-0)

ENG 602 Research Materials and Methods 3(3-0)

ENG 603 Advanced Professional Communications 3(3-0)

ENG 614 Practicum in Teaching College Composition 3(3-0)

ENG 615 Problems in Teaching English 3(3-0)

ENG 616 The Teaching of Creative Writing 3(Spec)

ENG 618 Teacher-Research Methods 3(3-0)

ENG 619 Continuing Registration for Final Research Project 1(1-0)

ENG 621 Seminar in Contemporary Poetry 3(3-0)

ENG 622 Seminar in Contemporary Fiction 3(3-0)

ENG 635 Seminar in English Literature 3-9(Spec)

ENG 636 Seminar in Critical Problems 3(3-0)

ENG 637 Seminar in Rhetoric and Composition 3-6(Spec)

ENG 638 Seminar in Textual Analysis and Editing 3(3-0)

ENG 656 Seminar in American Literature 3-9(Spec)

ENG 665 Seminar in World Literature 3-9(Spec)

ENG 672 Applied Linguistics in Written Communication 3(3-0)

ENG 673 English Phonology for Language Teachers 3(3-0)

ENG 674 English Grammar for Language Teachers 3(3-0)

ENG 675 Seminar in English Linguistics 3-9(3-9)

ENG 681 Seminar in Children’s Literature 3-9(Spec)

ENG 690 Practicum in TESOL 1-3(Spec)

ENG 691 Seminar Writing Fiction 3-6(Spec)

ENG 692 Seminar in Writing Poetry 3-6(Spec)

ENG 693 Seminar in Writing Nonfiction 3-6(Spec)

ENG 697 Independent Study 3-6(Spec)

ENG 718 Internship: Teaching 6(Spec)

ENG 719 Internship: Professional Communication 6(Spec)

ENG 799 Thesis 1-6(Spec)

Entrepreneurship (ENT)

See the College of Business Administration for more information.

ENT 101 Introduction to Entrepreneurship 3(3-0)
- This course presents the growing phenomenon of entrepreneurship in the domestic and international environments. Does not count for credit on the Business Administration majors or minors.

ENT 200 Introduction to Entrepreneurship Law 3(3-0)
- A course to introduce future entrepreneurs to the legal requirements for forming a business in Michigan. Identical to BLR 200. Credit may not be earned in more than one of these courses.

ENT 210 Accounting Information for Entrepreneurial Decision Making 3(3-0)
- Accounting concepts and practices for entrepreneurs/small business owners. Emphasis given to the use of accounting tools to solve small business problems. No credit if credit has been earned in ACC 201. Does not count on the School of Accounting major or minor. Identical to ACC 210. Credit may not be earned in more than one of these courses.

ENT 213 Economics for Entrepreneurs 3(3-0)
- Introduction to the economic way of thinking and its applications to decision making in the business world. Emphasis on understanding and applying economic concepts. Identical to ECO 213. Credit may not be earned in more than one of these courses. Does not count as credit for the Economics major or minor.

ENT 221 Marketing Strategies for Entrepreneurs 3(3-0)
- Marketing for small business; identification of a product and/or service potential; advertising plans, marketing strategy, store location, purchasing procedures and inventory control. Identical to MKT 221. Credit may not be earned in more than one of these courses.

ENT 300 Software Applications in Business 3(3-0)
- The application of database and spreadsheet software as integrated business problem solving tools. Identical to BIS 300. Credit may not be earned in more than one of these courses. Prerequisite: 56 semester hours completed.

ENT 320 Financial Management of the Entrepreneurial Venture 3(3-0)
- A practical application of basic financial management principles to the operation of a small business. Identical to MGT 416. Credit may not be earned in more than one of these courses. Current PC software and case-work utilized as the teaching medium. Prerequisite: ACC 210; signed major in Entrepreneurship.

ENT 416 Entrepreneurship in the Global Economy 3(3-0)
- Course focuses on how small companies recognize and seek out business opportunities worldwide; primarily a case-based course with a major field-study component. Identical to MGT 416. Credit may not be earned in more than one of these courses. Does not count on the Department of Management and Law majors or minors. Prerequisites: ENT 213, ENT 221; 56 semester hours completed; signed major in Entrepreneurship.

ENT 419 Entrepreneurship and Small Business Management 3(3-0)
- This course covers concepts, processes, and techniques for managing small business. The course focuses on aspects that are unique to small business management and small business ownership. This course is the capstone course on the entrepreneurship major. Identical to MGT 419. Credit may not be earned in more than one of these courses. Does not count on the Department of Management and Law majors or minors. Prerequisites: ENT 200, ENT 210, ENT 213, ENT 221, ENT 320; 86 semester hours completed; signed major in Entrepreneurship.

ENT 444 Internship in Entrepreneurship/Not-For-Profit 4-10(Spec)
- Course provides students with 400 or more hours of work experience. Employer evaluations required as well as a final written report. Prerequisites: ENT 200, ENT 210, ENT 213, ENT 221; 56 semester hours completed; signed major in Entrepreneurship.

ENT 492 Special Issues in Entrepreneurship 3(Spec)
- This course provides students with an opportunity to analyze the Account- ing, Finance, Marketing, Production, Information Systems, and Economic strategies of an on-going small business. Prerequisites: 56 semester hours completed; permission of instructor and signed major in Entrepreneurship

Environmental Studies (ENV)
See the Environmental Studies Major and Minor for more information.

ENV 101 Introduction to Environmental Studies 3(3-0)
- An introduction to the interdisciplinary study of human/environmental relations. Topics include the biosphere, ecosystems and how human socio-political factors interact with them. (Group IV-A)

ENV 197 Special Topics 1-6(Spec)*

ENV 310 Environmental Issues Management 3(3-0)
- Review of regulatory requirements and application of scientific studies to managing environmental risk. Case studies of risk management by the targeted community and regulatory agencies. Prerequisites: BIO 101 or BIO 105; ENV 101; CHM 120 or CHM 161 or both CHM 131 and CHM 132.

ENV 397 Special Topics 1-6(Spec)*

ENV 400 Environmental Studies Colloquium 1(1-0)
- Seminar format to integrate student internship experiences in the execution of problem-solving exercises relevant to environmental studies. Open to seniors who have completed their field internship. Prerequisites: success completion of non-credit six-week field internship and permission of the Program Director.

ENV 497 Independent Study 1-3(Spec)
- Students may explore topics of special interest with faculty members. Prerequisites: open to juniors and seniors with approval of the instructor and program director.

ENV 597 Special Topics 1-6(Spec)*

Earth Science (ESC)
See the Department of Geography and/or the Interdisciplinary Earth Sci- ence Majors and Minors for more information.

ESC 340 Micrometeorology 3(3-0)
- Radiation balance, heat and moisture exchange, and wind structure near the ground; influences of topography, soil type, cultivation techniques, and vegetation. Applications of agriculture, forestry, cities, and air pollution. Prerequisites: GEO 105, MET 201 or MET 240, or permission of instructor. Corequisite: ESC 341.

ESC 341 Micrometeorology Laboratory 1(0-2)
- Field measurements of micrometeorological variables; examination of the impact of variations in the environment on the local climate. Corequisite: ESC 340.
ESC 397 Independent Study 1-3(Spec)
Exploration of topics in geography/environment agreed upon by student and instructor. Prerequisites: 6 hours of ESC; permission of instructor and department chairperson before registration.

ESC 400 Earth Science Education 3(2-2)
Study of Earth science in the K-12 science curriculum, including relevant teaching methods and preparation of lesson plans in accordance with the State Science Content Standards. Prerequisites: junior standing; 12 hours of ESC, GEL, AST credit.

ESC 575 Special Studies in Earth Science 1-6(Spec)
Various special topics offered at an advanced undergraduate and graduate level. Topics announced in Class Schedule Book. Prerequisites: permission of instructor.

ESC 591 Internship 1-12(Spec)
Experiences in applying geographic techniques to environmental analysis, resource management and business applications. Up to 3 hours credit can be applied to geography major. A full-time internship position for one semester may qualify for 12 hours of credit. Identical to GEO 591. Credit may not be earned in more than one of these courses. Prerequisites: permission of program advisor.

ESC 597 Independent Study 1-9(Spec)
Exploration of topics in earth science agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisite: 12 hours of earth science credit; permission of both instructor and department chairperson before registration.

European Studies (EUR)

See the Interdisciplinary European Studies Major and Minor for more information.

EUR 301 Europe 3(3-0)
Geographic characteristics of the continent, its regions, and economic and political systems since World War I. National characteristics of culture, human/life relationships and international involvements. Identical to GEO 365. Credit may not be earned in more than one of these courses.

EUR 302 Europe Since 1945 3(3-0)
A study of political, social, economic and cultural change in Europe from the end of World War II to the present. Identical to HST 356. Credit may not be earned in more than one of these courses.

EUR 303 Comparative Politics: Eastern Europe 3(3-0)
Comparative analysis of selected Eastern European states, including Poland, Czech Republic, Hungary, former Yugoslavia, Romania, Bulgaria. Identical to PSC 341. Credit may not be earned in more than one of these courses. (Group IV-B)

EUR 304 The European Economy 3(3-0)
Survey of the economies of Europe in the post-cold-war era, focusing on economic systems, business agreements and social contracts. (Group IV-B)

EUR 496 European Studies Capstone Seminar 3(3-0)
A capstone experience in European Studies with a variable course content, centered around a current theme, which will be analyzed using a multi-disciplinary approach. Prerequisites: completion of 24 hours of coursework on the European Studies Major.

Finance (FIN)

See the Department of Finance and Law for more information.

FIN 201 Personal Finance 3(3-0)
A survival course designed to help you cope with the financial aspects of your life such as taxes, budgeting, inflation, insurance of all kinds, savings, and investing.

FIN 257 Risk Management 3(3-0)
A survey course of insurance and risk management, with emphasis on the corporate handling of risks. Prerequisites: 26 semester hours completed.

FIN 297 Special Topics 1-3(Spec)
Selected topics of interest to students which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisites: permission of department chairperson.

FIN 302 Integrated Financial Analysis 3(3-0)
Applied methods, with relevant theories, for a corporation to make decisions on investments, financing, and to evaluate performance in an integrative framework. Credit may not be earned in both FIN 302 and FIN 332. Prerequisites: Tier 2 Admission to Professional Business Studies. ACC 255, BIS 255, MGT 258; Co-requisites: BUS 301, MGT/MKT 303, MKT 304.

FIN 303 Financial Administration 3(3-0)
Financial administration of both profit and not-for-profit organizations including methods of asset procurement and raising capital. Credit may not be earned in both FIN 303 and FIN 332. Prerequisite: ACC 204 This course is approved for offering in a distance learning format.

FIN 307 Fundamentals of Personal Financial Planning 3(3-0)
A professional course with emphasis on the personal financial planning process and the roles of health, property and liability insurance in financial planning. Prerequisites: ACC 201 or ACC 250.

FIN 315 Principles of Investments 3(3-0)
Provides students with basic knowledge about different investments and sources of information to enable them to make wiser investments and prepare to build portfolios. Prerequisites: 56 hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 317 Insurance Planning 3(3-0)
A practical application of basic financial management principles to the operations of a small business. Current PC software and casework utilized as the teaching medium. Identical to ENT 320. Credit may not be earned in more than one of these courses. Prerequisites: ACC 210 or ENT 210; signed major in Entrepreneurship.

FIN 332 Managerial Finance 3(3-0)
Basic principles and techniques of the acquisition, management, and distribution of financial resources. Credit may not be earned in both FIN 302 and FIN 332. Prerequisites: ACC 201 or ACC 250, ACC 202 or ACC 255; 56 semester hours completed. This course is approved for offering in a distance learning format.

FIN 335 Real Estate Principles 3(3-0)
An introduction to real estate practice, institutions and participants with a focus on investment decision making, valuation, and debt financing. Prerequisite: ECO 202 or 203.

FIN 336 Real Estate Finance & Investments 3(3-0)
Survey of markets for futures and options on financial securities and selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcript. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 337 Real Estate Valuation & Appraisal 3(3-0)
The application of valuation techniques to the appraisal of properties purchased by investors for their income potential. Prerequisites: Admission to Professional Business Studies.

FIN 347 Retirement Planning 3(3-0)
This course covers issues that individuals face in retirement (money needs, life-styles, medical) and develops an understanding of both public and private retirement plans. Prerequisites: ACC 311, FIN 315, FIN 307; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 397 Special Topics 3-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcript. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 416 Institutional Operations 3(3-0)
Study of the management policies and procedures for profitable operation of institutions such as commercial banks, thrift institutions insurance companies, finance companies and pension funds. Prerequisites: FIN 302 or FIN 332, FIN 472; 56 semester hours completed; admission to Professional Business Studies or listed on a signed minor or major.

FIN 425 Options and Futures 3(3-0)
Survey of markets for futures and options on financial securities and commodities. Valuation of futures/options and application for hedging risk. Prerequisites: FIN 302 or FIN 332, FIN 315, 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 438 Real Estate Development 3(3-0)
A case studies approach to real estate development integrating urban dynamics, architecture, construction, law, public approvals, finance, marketing and management. Prerequisites: FIN 335, 336, and admission to Professional Business Studies.

FIN 442 Intermediate Financial Management 3(3-0)
In-depth examination of financial management. Current theory and practices are discussed with applications including computer simulations, comprehensive cases, and a term project. Prerequisites: FIN 302 or FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 445 Personal Estate Planning 3(3-0)
Fundamentals of estate planning for personal use and professional training. Professional topics target applications in trust administration, accounting, and personal financial planning. Identical to BLR 445. Credit may not be earned in more than one of these courses. Prerequisites: FIN 347; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or permission of the department chairperson.
FIN 446 Problems in Financial Institutions 3(3-0)
A case course to enable students to deal with problems affecting various fi-
nancial intermediaries, with an emphasis on banking. Prerequisites: FIN 472; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 447 Cases in Personal Financial Planning 3(3-0)
Capstone personal financial planning course in client-centered personal financial planning. This course applies principles of personal financial plan-
ing in case studies. Prerequisites: FIN 317, FIN 347, completion or current enrollment in FIN 445; 56 semester hours completed; admission to Profes-

FIN 448 Fundamental Financial Analysis 3(3-0)
Methods of fundamental financial analysis necessary for evaluating and forecast-
ing financial and operating performance. Prerequisites: FIN 302 or FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 455 Portfolio Management 3(3-0)
Learn advanced methods of analyzing and valuing both debt and equity securities, as well as theories and techniques for combining assets into ef-
ficient portfolios. Prerequisites: FIN 302 or FIN 332; FIN 315; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 472 Money and Capital Markets 3(3-0)
Survey of money and capital markets, strategies for growth, and timing of financial policy. Prerequisites: FIN 302 or FIN 332; ECO 201 or ECO 204, ECO 202 or ECO 203; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 482 Working Capital Management 3(3-0)
Both examination of working capital with the firm, emphasizing the short term aspects of financial management. Computer simulations, compre-

FIN 490 Internship in Finance 1-3(Spec)
Enrollment confined to a limited number of students working in business situations for educational experience. Prerequisites: permission of the depart-
ment chairperson; admission to Professional Business Studies or listed on signed major or minor.

FIN 491 Independent Studies 1-6(Spec)
Directed reading or research on an approved topic. Open to seniors in good academic standing. Prerequisites: prior permission of instructor and department chairperson; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 492 Practicum in Small Business 3(Spec)
Provides the student an opportunity to analyze the accounting, finance, marketing, management, and production systems of an ongoing small busi-
ness. Identical to ACC/MGT/MTK/BIS 492. Credit may not be earned in more than one of these courses. Prerequisites: Permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 497 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the students transcripts. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 498 Seminar in Financial Theory 3(3-0)
Financial theories, such as utility and arbitrage pricing will be studied. The efficacy of the theory to the application of finance in the world will be dis-
cussed. Prerequisites: FIN 442; permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 499 Advanced Financial Management 3(3-0)
The capstone course in finance. Broad integrative topics within financial management are examined through cases, exams, and a written project. Required of finance majors. Prerequisites: FIN 332, FIN 442; 86 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor. Recommended: FIN 448, FIN 472.

FIN 573 International Finance 3(3-0)
Role of financial manager in international corporations. Environmental problems of foreign exchange. Techniques for making investment decisions, financing marketing operations, long-term capital structure and flow of funds. Prerequisites: FIN 302 or FIN 332; 56 semester hours completed and admis-
sion to Professional Business Studies or listed on signed major or minor.

FIN 597 Special Topics 1-3(Spec)
Selected topics of interest to students which are not formally included in
existing courses. Specific topic will be listed on student’s transcript. Pre-
rerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor, or permission of MBA director.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

FIN 671 Financial Derivatives 3(3-0)
FIN 674 Short Term Financial Management 3(3-0)
FIN 676 Investment Strategy 3(3-0)
FIN 678 Long Term Financial Policies 3(3-0)
FIN 791 Independent Studies 1-6(Spec)
FIN 797 Special Topics 3-6(Spec)
FIN 798 Thesis 1-6(Spec)

Foreign Language (FLN)
See the Department of Foreign Languages, Literatures and Cultures for more information.

FLN 197 Special Topics 1-8(Spec)
For students beginning the study of a language or topic not offered in the regular program of this department.

FLN 297 Special Topics 1-8(Spec)
For students continuing the study of a language or topic not offered in the regular program of this department. Prerequisites: permis-
sion of instructor and department chairperson.

FLN 597 Special Topics 1-8(Spec)
The in-depth study of a topic under the direction of a faculty member who together with a student designs the format of the study. Prerequisites: permis-
sion of instructor and department chairperson; at least 6 hours on the 400 level.

French (FRN)
See the Department of Foreign Languages, Literatures and Cultures for more information. Courses on the 100 and 200 level are supplemented by laboratory work.

FRN 101 Elementary French I 4(4-0)
Designed for students who have had no French. Basic language skills. Introduction to the culture of the French-speaking countries. Students who have had previous preparation in French are required to take a placement exam. Students who have had more than two years of high school French may not enroll without permission of instructor. (Group IV-B)

FRN 102 Elementary French II 4(4-0)
Basic language skills. Continuation of FRN 101. Recommended: FRN 101 or equivalent. (Group IV-B)

FRN 110 Study Abroad 1-18(Spec)
Intended for beginning students studying abroad. Prerequisite: permission of instructor.

FRN 201 Intermediate French I 4(4-0)
Review of grammar and further development of all language skills. Recom-

FRN 202 Intermediate French II 4(4-0)
Continuation of FRN 201 with increased emphasis on reading and discuss-

FRN 210 Study Abroad 1-18(Spec)
Intended for intermediate students studying abroad. Prerequisites: FRN 102 or equivalent; permission of instructor.

FRN 310 Study Abroad 1-18(Spec)
Intended for advanced students studying abroad. Prerequisites: FRN 202; permission of instructor.

FRN 315 Advanced French I 3(3-0)
Review and refinement of French grammar. Special emphasis on understand-
ing contemporary spoken and written French. Not open to students with credit in FRN 311. Recommended: FRN 202 or equivalent.

FRN 316 Advanced French II 3(3-0)
Review and refinement of French grammar. Special emphasis on reading and writing about literary works in French. Not open to students with credit in FRN 332. Recommended: FRN 202 or equivalent.

FRN 320 French Civilization 3(3-0)
A study of various aspects of French culture from its beginnings through the

FRN 321 France Today 3(3-0)
Various aspects of the political, social, economic, intellectual, artistic, and literary life of contemporary France. Recommended: FRN 202 or equivalent.

FRN 330 Survey of French Literature (Beginning to 1800) 3(3-0)
Develops acquaintance with the literature of France from the Middle Ages to 1800 through selections from representative authors. Recommended: FRN 202 or equivalent.

Descriptions of courses approved for the University Program appear in italic type.
First Year Experience (FYE)

See First Year Experience under the Special Studies section for more information.

FYE 101 First Year Experience 1(1-0)
Provides an understanding of the university environment, value of learning, career guidance and student responsibilities. Prerequisite: only open to students in their first year at CMU.

FYE 301 Mentor First-Year Experience 3(2-2)
This course provides a theoretical foundation, practical knowledge and skill development for the role of First-Year Experience (FYE 101) Mentor

Geology (GEL)

See the Department of Geology for more information.

GEL 100 Introduction to Earth Systems 3(2-2)
A discovery-based introductory examination of the processes that shape our planet. Topics include the rock cycle, earthquakes, volcanoes, the Ice Age, and plate tectonics. Satisfies Group II laboratory requirement. Credit may not be earned in both GEL 100 and GEL 101, GEL 102, GEL 105 or GEL 130. (Group II-A)

GEL 101 Physical Geology 3(3-0)
An introduction to the surficial and internal earth processes that shape our world. Topics include plate tectonics, minerals, rocks, volcanoes, earthquake hazards. Credit cannot be earned in both GEL 101 and GEL 100, GEL 105, or GEL 130. (Group II-A)

GEL 102 Physical Geology Laboratory 1(0-2)
Laboratory study of minerals, rocks, maps, and geologic processes. Prerequisites: Two 300-level French courses. Credit may not be earned in both GEL 102 AND GEL 100 OR GEL 130. (Group II-A)

GEL 105 Dangerous Planet 3(3-0)
A survey of the socially important geological topics that affect people and their environment with a focus on natural and anthropogenic geologic hazards. Credit may not be earned in both GEL 105 and 100, 101, or 130. (Group II-A)

GEL 130 Earth Processes 3(2-2)
An introduction to geologic processes from a quantitative perspective. Students will investigate rates and scales of processes including earthquakes, erosion, mountain building, and resource formation. Satisfies Group II laboratory requirement. Credit may not be earned in both GEL 130 and GEL 100, GEL 101, GEL 102, or GEL 105. (Group II-B)

GEL 201 Earth History 3(2-2)
The earth’s history as revealed in the rock record. Geologic processes and concepts are applied to the evolution of North America and life through geologic time. Prerequisite: GEL 101 or 105, and 102; or GEL 100 or 130.

GEL 203 Geology of the National Parks 3(3-0)
Study of the geologic processes responsible for creating the areas set aside as National Parks and National Monuments. Recommended for the travel, naturalist, or park administrator.

GEL 250 Oceanography 3(3-0)
Introduction to the properties and movements of ocean waters; to marine life, the ocean floors, and the effects of the oceans on man. Identical to GEO 205; credit may not be earned in both of these courses. (Group II-A)

GEL 230 Prehistoric Life 3(3-0)
An introduction to the three-billion-year history of life on earth. Topics include the origin of life, mass extinctions, history of dinosaurs, and evolution of mammals. (Group II-A)

GEL 275 Special Problems in Geology 1(Spec)
A study of special topics presented on demand when sufficient students and interested faculty are available.

GEL 290 Introduction to Geologic Investigation 3(2-2)
An introduction to methods of geologic research and investigation. Topics include information gathering (library, Internet), field methods (observations, measurements, sampling, mapping, and report writing. Prerequisites: GEL 101 or GEL 105, and GEL 102; or GEL 100 or GEL 130.

GEL 297 Independent Study 1-3(Spec)
Qualified self-directed students may explore topics of special interest with faculty guidance. More than 3 credits permitted only rarely. Prerequisite: GEL 101 or GEL 105 and 102; or GEL 100 or 130; and permission of instructor.

GEL 301 Geology and Michigan 3(3-0)
An introduction to geologic processes as they apply to the past and present geologic history of Michigan. Particularly recommended for students in education. Not recommended for students who have completed GEL 101. Recommended: GEL 102 co-registration. (Group II-A)
Geography (GEO)

See the Department of Geography for more information.

GEO 105 Physical Geography 3(2-2)
An introduction to the physical processes of the atmosphere, hydrosphere, lithosphere, and biosphere and the global distribution of climate, soils, and vegetation. Satisfies University Program laboratory requirement. (Group II-A)

GEO 120 Environmental Geography 3(3-0)
An introduction to the human use of the earth's surface and inquiry into selected environmental problems resulting from use of the physical landscape. This course is approved for offering in a distance learning format. (Group IV-A)

GEO 121 Cultures of the World 3(3-0)
Population, political, economic, and other cultural phenomena and their world distributions and principles of sensing are presented upon a nontechnical background of physical geography. This course is approved for offering in a distance learning format. (Group III-B)

GEO 200 Contemporary World Problems 3(3-0)
An introduction to a global perspective, the examination of geographic factors affecting selected world problems, and the evaluation of the geographic quality of media coverage.

GEO 203 Introduction to Geographic Information Science 3(2-2)
Fundamentals of geographic information science - including map interpretation and spatial data gathering, measurement, classification, analysis and display. Current computer mapping technologies are used in laboratory.

GEO 205 Oceanography 3(3-0)
Introduction to the properties and movements of ocean waters; to marine life, the ocean floors, and the effects of the oceans on man. Identical to GEL 205; credit may not be earned in both of these courses. (Group II-A)

GEO 210 Landforms 3(2-2)
Study of geomorphic processes including mass wastage, streams, and glaciation affecting the evolution and distribution of landforms in the physical landscape. Prerequisites: GEO 105 or GEL 101, or permission of instructor.

GEO 303 Geographic Information Systems I 3(2-2)
Concepts and applications of geographic information systems (GIS). Capturing, storing, querying, and displaying geographically referenced data. Primary emphasis is on vector-based GIS. Prerequisite: GEO 203

GEO 305 Remote Sensing of the Environment 3(2-2)
Characteristics of remote sensing systems. Interpretation of photographic and electronic imagery of earth environment from airborne and space platforms. Recommended: 6 hours of geography or other environmental science, or permission of instructor.

GEO 310 Surface Hydrology 3(2-2)
The course deals with stream waters and their alteration of the landscape. Stresses the interaction of water, land and human activity. Prerequisite: GEO 210 or permission of instructor.

GEO 315 Food and Agriculture 3(3-0)
Study of world production, exchange, and consumption of agricultural commodities with emphasis upon the problems associated with food shortages and the areas most severely affected. Recommended: One of the following: GEO 120, GEO 121, GEO 105.

GEO 317 Economic Geography 3(3-0)
Principles and theories of economic geography, the global interrelationships of regional and local economic activities, and the effects of technology on spatial economic structures. Recommended: GEO 121, Junior standing, or background in basic economics. (Group III-B)

GEO 320 Population Geography 3(3-0)
Spatial patterns of fertility, mortality, and migration, and the processes underlying those patterns. Population growth, distribution, problems and policies. Recommended: One of the following: Junior standing, GEO 120, GEO 121, or permission of the instructor.

GEO 325 Geography of Growth and Change 3(3-0)
Interrelated nature of the growth of human activity and the resulting spatial expression. Impact of growth on environment. Prerequisite: GEO 120.

GEO 330 Resource Perception and Utilization 3(3-0)
Influence of physical, economic, political, and social factors on the total resource system.

GEO 334 Soil Science 3(2-2)
An introduction to the physical, chemical, and biotic properties of soils; soil classification and mapping; and soil resource issues. Identical to BIO 334. Credit may not be earned in more than one of these courses. Prerequisites: CHM 120 or CHM 131. Recommended: 6 hours of environmental science.

GEO 335 Biogeography 3(3-0)
Atmospheric, terrestrial, and aquatic influences on the world distribution of plant and animal life. Prerequisite: GEO 105 or permission of instructor.

GEO 340 Urban Geography 3(3-0)
The rise of cities and urbanization. Human use of urban space. The city as environment.

GEO 345 Political Geography 3(3-0)
Areal characteristics and territorial problems of states, including internal regional relations, border disputes, and colonial areas. Selected world problems. Recommended: Background in history desirable.

GEO 346 Geography of the Developing World 3(3-0)
A geographic analysis of the developing world focusing on processes of environmental, demographic, and socioeconomic change, particularly since World War II. Prerequisites: junior standing or permission of the instructor.

GEO 350 United States and Canada 3(3-0)
Physical environment, resources, economic activities, population pattern, and interregional relationships of United States and Canada. Recommended: One of: GEO 105, 120, 121, junior standing.

GEO 355 Environmental Catastrophes 3(3-0)
Causes and effects of hurricanes, tornados, blizzards, earthquakes, volcanic eruptions, dam failures, tidal waves, freak seas, plagues, epidemics, and similar phenomena. Recommended: One or more environmental courses.

GEO 365 Europe 3(3-0)
Geographic characteristics of the continent, its regions, and economic and political systems since WWII. National characteristics of culture, human/land relationships and international involvements. Identical to EUR 301. Credit may not be earned in more than one of these courses.

GEO 373 Latin America 3(3-0)
Geographic characteristics of Latin America from colonization to present. Regions are interpreted by analysis of geographical elements and their interrelationships. This course is approved for offering in a distance learning format. (Group IV-B)

GEO 375 Special Topics in Geography 1-9(Spec)
Various geography topics offered at an advanced undergraduate level. Prerequisite: permission of the instructor.

GEO 395 Michigan 3(3-0)
Physical environment, resources, settlement, population, and economic activities studied sequentially and regionally. Prerequisite: junior standing or permission of instructor.

GEO 397 Independent Study 1-3(Spec)
Exploration of topics in geography agreed upon by student and instructor. Prerequisite: May be taken only upon arrangement prior to registration.

GEO 400 Geographic Education 3(2-2)
Study of geography in the K-12 curriculum including relevant teaching methods, national and state content standards and multicultural education. Prerequisites: junior standing; 12 hours of geography or social sciences.

GEO 404 Global Positioning System 1(1-0)
Introduction to the Global Positioning System, system operation, data capture, mission planning and data import to Geographic Information Systems (GIS). Prerequisites: GEO 303 or permission of instructor.

GEO 405 CAD Mapping for GIS 3(2-2)
Concepts and practice of 2-dimensional Computer-Aided Drafting systems (CAD) from a GIS/Mapping perspective. Approach will include photogrammetric techniques and land surveying data. Prerequisites: GEO 203, GEO 303.

GEO 500 Advanced Cartography 3(2-2)
Advanced techniques for cartographic exploration and communication. Cartographic representation of multivariate data, interactive and animated cartography, and Web-based cartographic communication. Prerequisite: GEO 303 or permission of instructor.

GEO 503 Geographic Information Systems 3(2-2)
The techniques of computer-assisted analysis and display of spatially ordered geographic data. Students will use vector and raster GIS. Prerequisites: GEO 303, GEO 305.

GEO 506 Applications in Remote Sensing of the Environment 3(2-2)
The study of imagery to reveal characteristics of natural and cultural environment. Photographic, thermal infrared, and radar imagery to be considered, emphasis on aerial photography. Prerequisite: GEO 305 or permission of instructor.

GEO 508 Digital Remote Sensing 3(2-2)
Computer processing and analysis of digital remote sensing data. Emphasis on multispectral image processing and analysis using standard microcomputer image processing programs. Prerequisites: GEO 303, GEO 305.

GEO 511 International Geographic Experience 3(3-0)
Experience in field research techniques and knowledge of regions outside the United States. International travel is required. May be repeated one time only. Prerequisites: 6 semester hours of 300 level or higher Geography course or permission of instructor.

GEO 512 Quantitative Methods for Spatial Analysis 3(2-2)
Statistical techniques for solving spatial problems. Descriptive and inferential spatial statistics. Point pattern analysis. Prerequisites: GEO 303; STA 382 or equivalent; or permission of instructor.

GEO 515 Geography of the Great Lakes Region 3(3-0)
A look at the Great Lakes region complex and the diversity of the Great Lakes Region. Study and application of regional concepts to the Great Lakes area. Prerequisites: 6 hours of GEO, or permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
GEO 516 Advanced Remote Sensing Systems 3(2-2)
Characteristics, processing, and applications based on advanced remote sensing systems including imaging radar, thermal and hyperspectral systems. Prerequisites: GEO 508 and STA 362.

GEO 530 Land Use Planning 3(3-0)
The study of land use planning history, concepts and techniques. Analysis of federal, state, and local government roles in planning. Examination of specific land use programs. Prerequisites: GEO 303; 6 additional semester hours in either or both GEO or PSC, or permission of instructor.

GEO 531 Integrated Land Use Planning 3(3-0)
The integration of land use planning history, concepts and techniques with broader regional economic and environmental planning approaches in the US and abroad. Prerequisites: GEO 530 or permission of instructor.

GEO 550 Geography for Teachers 3(3-0)
For teachers who want to upgrade their knowledge of geography, experiment with new teaching techniques, and learn how to make professional in-service presentations to teachers. Graduate credit only. Prerequisites: teacher certification or permission of instructor.

GEO 553 GIS Operations and Practices 3(3-0)
Practices and procedures utilized by professionals in the implementation and maintenance of large-scale GIS operations. Prerequisites: GEO 503 or Graduate Status in the GISci Program.

GEO 575 Special Studies in Geography 1-6(Spec)
Various special topics offered at an advanced undergraduate and graduate level. Prerequisites: permission of instructor.

GEO 591 Internship 1-12(Spec)
Experiences in applying geographic techniques to environmental analysis, resource management, and business applications. Up to 3 hours of internship credit can be applied to the geography/earth science major. Identical to ESC 591. Credit may not be earned in more than one of these courses. A full-time internship position for one semester may qualify for 12 hours of credit. Prerequisite: permission of program advisor.

GEO 597 Independent Study 1-9(Spec)
Exploration of topics in geography agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisites: permission of the instructor and department chairperson; at least 6 hours on the 400 level. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

GEO 600 Dynamic Mapping and Visualization 3(2-2)
GEO 603 GIS Design and Programming 3(2-2)
GEO 608 Advanced Digital Remote Sensing 3(2-2)
GEO 619 Continuing Registration for Final Research Project 1(1-0)
GEO 701 Contemporary Spatial Data Management 3(2-2)
GEO 797 Directed Research in Geographic Information Sciences 1-6(Spec)
GEO 798 Thesis 1-6(Spec)

German (GER)
See the Department of Foreign Languages, Literatures and Cultures for more information. Courses on the 100 and 200 level are supplemented by laboratory work.

GER 101 Elementary German I: Language and Culture 4(4-0)
Designed for students who have had no German. Basic language skills. Introduction to the culture of the German-speaking countries. Students who have had previous preparation in German are required to take a placement exam. (Group IV-B)

GER 102 Elementary German II: Language and Culture 4(4-0)
Continuation of GER 101. Basic language skills and introduction to the culture of the German-speaking countries. Recommended: GER 101 or equivalent. (Group IV-B)

GER 107 - Conversational German 1(1-0)
Designed for students who have had no German and wish to acquire some basic conversational skills. Emphasis on speaking and understanding, responding and vocabulary acquisition.

GER 110 German Language Study Abroad 1-8(Spec)
Intended for beginning students studying abroad. Prerequisite: permission of instructor.

GER 201 Intermediate German I 4(4-0)
Further development of all language skills, a review of grammar, and exploration of the culture of present day Germany. Recommended: GER 102 or equivalent. (Group IV-B)

GER 202 Intermediate German II 4(4-0)
Continuation of GER 201. Recommended: GER 201 or equivalent. (Group IV-B)

GER 210 German Language Study Abroad 1-8(Spec)
Intended for intermediate students studying abroad. Prerequisites: GER 102 or permission of instructor.

GER 311 Advanced German I 3(3-0)
Study of standard High German using current conversational and literary sources. Recommended: GER 202 or equivalent.

GER 312 Advanced German II 3(3-0)
Continuation of GER 311. Recommended: GER 311 or equivalent.

GER 325 Modern German Literature in Translation 3(3-0)
Interpretation and discussion of representative works by 20th century writers with a focus on their views of contemporary society. Does not count on German major or minor.

GER 335 The Culture of the German Economy 3(3-0)
Development of proficiency through readings, discussions, and assignments dealing with the culture of the German economic system and Germany in world trade. Taught in German. Recommended: GER 202 or equivalent.

GER 336 The Culture of German Business 3(3-0)
Readings, discussions, and assignments based on materials dealing with key areas of the German business culture such as management and corporate hierarchies. Taught in German. Recommended: GER 202 or equivalent.

GER 341 German Cultural History I 3(3-0)
The civilization of Germany and German-speaking areas with emphasis on the social, political, artistic, philosophical, and literary aspects. Recommended: GER 202.

GER 342 German Cultural History II 3(3-0)

GER 343 Survey of German Literature I 3(3-0)
Survey of the chief literary periods through the early 19th century, reading representative authors and works within their social contexts. Recommended: GER 202.

GER 344 Survey of German Literature II 3(3-0)
Survey of the chief literary periods from the mid-19th century through the present, reading representative authors and works within their social contexts. Recommended: GER 202.

GER 370 Advanced Studies in German 1-12(Spec)
Special topics may include language, literature and/or culture. May be repeated when the content is not a duplication of a previous special topics offering. Recommended: GER 202; permission of instructor.

GER 397 Directed Readings 1-3(Spec)
Offers insight into certain aspects of German literature and civilization, not normally included in regular courses. Prerequisites: 6 hours of 300-level courses; permission of instructor.

GER 398 Directed Writing 1-3(Spec)
Students will learn to write different text types (e.g., news articles, short stories, book reviews, etc.). They will improve their grammatical, linguistic, and stylistic skills in written German. Prerequisites: GER 311; permission of instructor.

GER 403 German Literature to 1776 3(3-0)
The Middle Ages, Renaissance, Baroque, and the Enlightenment. Modern German translations from Old High German and Middle High German periods. Prerequisite: 6 hours of 300-level courses.

GER 405 German Classicism 3(3-0)
The classical age culminating in the works of Goethe and Schiller. The authors’ lives, thoughts, and impact on their contemporaries. Prerequisite: 6 hours of 300-level courses.

GER 407 German Literature of the Nineteenth Century 3(3-0)
Romanticism, Poetic Realism, and Naturalism through representative authors. Prerequisite: at least 6 hours of 300-level courses.

GER 408 German Literature of the Twentieth Century 3(3-0)
Impressionism, Expressionism, Neo-realism, and other current trends. Prerequisite: At least 6 hours of 300-level courses.

GER 410 Study Abroad 1-24(Spec)
Intended for students on the exchange program with the Federation of German-American Clubs. Prerequisites: 6 hours at the 300 level or equivalent; permission of the instructor.

Descriptions of courses approved for the University Program appear in italic type.
GER 411 Practicum in Teaching German 3(2-1)
Techniques for teaching and testing foreign language skills, planning lessons and units, and selecting texts, cultural materials, and teaching aids. Practical experience through mini-teaching situations. Prerequisites: Two 300-level courses; passing the competency test; departmental permission.

GRN 412 Practicum: Secondary Field Experience 1(Spec)
Midterm experience in secondary teaching situations. CR/NC only. Co-requisite: GER 411

GRN 421 Foreign Language in Elementary Schools 1(1-0)
Techniques for teaching and testing foreign language skills, planning lessons and units, and selecting texts, cultural materials and teaching aids. Practical experience through mini-teaching situations. Prerequisite: must be taken concurrently with GER 411.

GRN 422 Practicum: Elementary Field Experience 1(Spec)
Midterm experience in elementary teaching situations. CR/NC only. Prerequisite: To be taken concurrently with GER 421.

GRN 470 Advanced Studies in German 1-12(Spec)
To develop advanced proficiency in German. Special topics may include language, literature, and/or culture. May be repeated when the content is not a duplication of a previous special topics offering. Recommended: 6 hours at the 300 level; permission of instructor.

GER 490 Advanced German for Business 3(3-0)
Expands on GER 335 and features new topics such as management, finance, marketing, etc. Focused on current issues facing German business. Prerequisites: GER 335 or GER 336 with a grade of B or better; permission of instructor; level of language competence sufficient to permit effective functioning in a practicum setting; space available in the program. Corequisites: one of the following: ACC 490, FIN 490, MGT 490, MKT 490 or BUS 490.

GER 570 Advanced Grammar and Composition 3(3-0)
Analysis of grammatical structures and extensive practice in oral and written expression. Recommended for majors. Prerequisite: GER 312 or equivalent.

GRN 597 Independent Study 1-6(Spec)
The in-depth study of a topic under the direction of a faculty member who together with a student designs the format of the study. Prerequisites: permission of instructor and department chairperson; at least 6 hours on the 400 level.

Greek (GRK)
See the Department of Foreign Languages, Literatures and cultures for more information.

GRK 101 Classical Greek 4(4-0)
Grammar of written Greek prose of the Attic period, reading Greek text aloud, translation and composition.

GRK 102 Classical Greek 4(4-0)
Continuation of GRK 101. Prerequisite: GRK 101; or permission of instructor.

GRK 201 Classical Greek 4(4-0)
Reading and translation of Greek prose, including Xenophon and the Greek Bible. Prerequisite: GRK 102.

GRK 202 Classical Greek 4(4-0)
Continued guidance of the student in reading Greek prose and in the analysis of connected texts. Prerequisite: GRK 201.

Gerontology (GRN)
See the Interdisciplinary Gerontology Minor for more information.

GRN 247 Introduction to Gerontology 3(3-0)
An interdisciplinary approach to the study of aging with a focus on the normal changes that occur as one ages physically, mentally, and socially. (Group IV-A)

GRN 248 Service Learning in Gerontology 3(Spec)
A structured and supervised service learning experience in professional service settings specifically addressing the needs of older adults. Prerequisites: concurrent registration in or completion of GRN 247 or PSY 325.

GRN 430 Women and Aging 3(3-0)
Multiple theoretical perspectives examine the status of older women, individual psychological, social and physical development, roles in family and society, and policy implications. Identical to WST 430. Credit may not be earned in more than one of these courses. Prerequisite: GRN 247 or PSY 325 or HSC 390.

GRN 535 Dementia Care: Diagnosis, Treatment and Prevention 3(3-0)
This course provides a foundation in normal aging and then addresses the individual, family and institutional challenges of diagnosis, treatment and prevention of dementing illnesses. Prerequisites: GRN 247 or PSY 325 or HPR 390 or permission of instructor.

GRN 575 Geriatric Nutrition 3(3-0)
A detailed description of nutrition for the elderly, including special nutritional considerations, food selection patterns, nutritional status and strategies for disease prevention. Identical to HCN 575. Credit may not be earned in more than one of these courses. Prerequisites: HCN 370.

GRN 590 Independent Study 1-4(Spec)
Student-initiated study (reading, research, and/or project development) on a topic not normally covered in existing courses. Prerequisite: permission of instructor.

GRN 597 Special Topics 1-4(Spec)
Selected topics/problems of interest that are not normally included in existing courses. May include conferences, workshops, and seminars sponsored by the Interdisciplinary Gerontology Program. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

GRN 631 Gerontology: Theory and Practice 4(4-0)

GRN 632 Public Policy and Aging 3(3-0)

Human Environmental Studies (HEV)
See the Department of Human Environmental Studies for more information.

HEV 100 Human Growth and Development: Lifespan 3(3-0)
Study of the basic principles of human development and their relation to family interactions throughout the lifespan. Students who have taken EDU 280 or PSY 220 should seek departmental advice prior to enrollment. Prerequisites: None. (Group III-A)

HEV 110 Oppression: Roots and Impact on Human Development in the United States 3(3-0)
Examines the roots and impact of different forms of oppression on the development of individuals within the family context. This course is approved for offering in a distance learning format. (Group IV-C)

HEV 131 Interior Design Studio I: Introduction 3(1-4)
Application of basic design elements and principles and the use of design concepts, materials, and model building techniques applicable to commercial and residential interiors. Prerequisite or corequisite: HEV 138.

HEV 138 Visual Communication for Interior Design 3(1-4)
Visual communication of design concepts through rendering and presentation techniques; used to express development and the final stages of design process.

HEV 139 Interior Design Drafting 3(2-2)
Provides drafting and print reading experience designed to meet the professional needs of students concentrating in interior design by covering presentation, architectural and pictorial drawings.

HEV 140 Introduction to Apparel Construction 3(2-2)
Basic construction, alteration, and fitting techniques of apparel.

HEV 141 Apparel Design: Analysis 3(3-0)
The apparel design process. Emphasis on the aesthetic component, including application of art elements/principles to visual design. Fashion as a process and product.

HEV 155 Introduction to Textiles 3(2-2)
Introductory course in textiles. Study of fiber, yarn, and fabric properties.

HEV 160 Introduction to Foods 3(2-2)

HEV 197 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses.

HEV 211 Marriage and Family Perspectives 3(3-0)
Cultural-historical perspective of marriage and family. Social and psychological dynamics of individual and family interaction.

HEV 212 The Family in Cultural Perspective 3(3-0)
The varieties of family forms and resulting patterns of interpersonal relations to be found throughout Western history and in selected Western and non-Western cultures. (Group III-B)

HEV 213 Introduction to Human Sexuality 3(3-0)
Human sexual development throughout the life cycle. Emphasis on understanding and acceptance of self as a sexually functioning person. Identical to WST 213. Credit may not be earned in more than one of these courses.

HEV 214 Consumer Economics 3(3-0)
Consideration of issues and problems related to the informed and responsible consumer.

HEV 219 HDFS Field Work 3(1-6)
This course examines service learning and potential career paths for professionals in Human Development and Family Studies. Field placements required. Prerequisites: a signed major in Child Development or Family Studies; completion of HEV 100 or HEV 211; or permission of instructor.
HEV 238 Design History and Precedent 3(3-0)
Cross-cultural survey of environmental design including primal, vernacular, and high style forms with correlating historical context.

HEV 240 Advanced Apparel Construction 3(2-2)
Advanced construction, alteration, and fitting techniques with attention to special fabric manipulation and use of appropriate apparel production equipment. Prerequisite: HEV 140 or passage of placement test.

HEV 241 Apparel Design: Illustration 3(1-3)
Introduction to graphic skills involved in drawing the fashion figure, garment sketching, and rendering of textures. Emphasis on portfolio development for the apparel designer. Prerequisites: HEV 140, HEV 141, or permission of instructor.

HEV 246 Computer-Aided Design for Apparel 3(2-2)
Development and production of textile and apparel designs and patterns via selected computer-software packages. Implications for use in the apparel industry. Prerequisites: HEV 140 or HEV 250; HEV 141.

HEV 250 - Apparel Evaluation 3(2-2)
Evaluative techniques for analyzing apparel quality leading to improved product knowledge. Factors that determine the cost, price, quality, performance and value of garments. Prerequisite: HEV 155.

HEV 252 Dress and Culture 3(3-0)
Appearance and dress as a reflection of social, psychological and cultural environments of humans; examination of dress as an aspect of culture and individual expression. (Group IV-A)

HEV 256 Fashion Merchandising 3(3-0)
Introduction to the merchandising function emphasizing fashion as a process and product: fashion cycle, fashion adoption, production and distribution of fashion goods and services. Prerequisite or Corequisite: HEV 141.

HEV 283 Beverages In Foodservice 3(3-0)
A study of the sources, production, storage and service of coffee, tea, carbonated beverages, beer, wine, and spirits.

HEV 271 Food and Culture in the United States 3(3-0)
Characteristics and effects of food choices among culturally diverse groups within the United States.

HEV 291 Human Environmental Studies: Family Ecology 3(3-0)
Holistic approach to studying families: emphasis on the dynamic interaction of families with surrounding environments and career options associated with interaction of families and environments.

HEV 297 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses.

HEV 302 Human Growth and Development: Infancy 3(3-0)
Pregnancy, prenatal development, childbirth, and the development of infants and toddlers (to 3 years) within the family and the larger social systems. Prerequisite: HEV 100 or EDU 280 or PSY 220.

HEV 303 Human Growth and Development: Early Childhood 4(3-2)
Principles for growth and development of preschool and early elementary children (ages 3-8) from diverse backgrounds and observation of children in early education settings. Prerequisite: HEV 100 or EDU 280 or PSY 220, or permission of instructor.

HEV 306 Human Growth and Development: Adolescence 3(3-0)
Study of adolescence and issues relating to the family of a teenager. Prerequisite: HEV 100 or permission of instructor.

HEV 307 Human Growth and Development: Parent-Child Relations 3(3-0)
The study of the parent-child relationship, and the impact of that relationship on the development of both children and parents. Prerequisite: one of HEV 100, EDU 280, or PSY 220.

HEV 308 Human Growth and Development: Theory 3(3-0)
Survey of human development theory. Prerequisites: HEV 100, a signed major or minor in Child Development, Human Development, or Family Studies; or permission of instructor.

HEV 315 Family Management Theory 3(3-0)
Integrated nature of family management; values, goals as reflected in decision making regarding family resources.

HEV 318 Indigenous Families and Survival: A Global Perspective 3(3-0)
Integrated nature of family management; values, goals as reflected in decision making regarding family resources.

HEV 319 HDFS Skills and Methods 3(3-0)
An introduction to the skills and methods essential for work with individuals and families in service fields. Prerequisites: HEV 219 with a grade of C+ or better; a signed major in Child Development or Family Studies.

HEV 320 HDFS International Service Learning 3(6-Spec)
An international cultural immersion experience working on a service learning project under the supervision of a faculty member. Depending on the service project approved, prerequisites may include language, credit or ability, completion of specialized courses or demonstration of appropriate skills for the project. Prerequisites: Permission of Instructor

HEV 328 Design History and Criticism 3(3-0)
Study of Western design forms (17th century through present) with cor- relating historical, cultural, and theoretical developments. Criticism of current design using diverse criteria. Prerequisites: HEV 131, HEV 238.

HEV 330 Professional Seminar in Apparel Merchandising and Design 2(2-0)
Seminar prior to a supervised internship in an apparel merchandising/design firm or related business. Prerequisites: C or better in HEV 140 or HEV 250; HEV 145, HEV 256. Recommended: One art studio course or HEV 456; 3 hours in BLR 202, BLR 325, MGT 320, MGT 357, or MGT 365.

HEV 332 Human Shelter and Environment 3(3-0)
Perspectives on the relationship between the built, cultural and natural environments, including: social, political and psychological effects; cross-cultural and interdisciplinary views; and ecological aspects. (Group IV-A)

HEV 334 Computer-Aided Design for Interiors 3(2-2)
Fundamental concepts and applications of graphic software programs. Current and potential applications of digital computers and CAD software in design. Prerequisites: HEV 131, HEV 139, HEV 139; Prerequisite/Corequisite: HEV 337.

HEV 335 Internship in Apparel Merchandising and Design 4(Spec)
A structured internship experience that fosters transfer of knowledge and skill into competent and successful performance in an apparel merchandising or design career. Prerequisites: HEV 330, permission of instructor.

HEV 336 Materials and Components of Interior Design 3(3-0)
Consideration of the materials, equipment and systems utilized in the design and construction of interior environments.

HEV 337 Interior Design Studio II: Residential 3(1-4)
Application of basic design process to residential interiors: space planning, furnishings, finishes, color, and lighting; according to the socioeconomic, physical, and psychological needs of users. Prerequisites: HEV 139, 332.

HEV 338 Internship Preparation for Interior Design 1(Spec)
Development of skills to prepare students for obtaining an internship in an interior design firm or related field. Should be taken semester prior to HEV 438. Prerequisite: HEV 337.

HEV 339 Interior Design Studio III: Special User Groups 3(1-4)
Assessment of the special environmental needs of the disabled, elderly and children; application to studio design problems. Prerequisites: HEV 131, HEV 138, HEV 139, HEV 238, HEV 322, HEV 322, HEV 330, HEV 337. Prerequisite or Corequisites: HEV 334, 436.

HEV 345 Apparel Design Methods 3(2-2)
Introduction to flat pattern as a method of apparel design. Effects of design method, fabric, construction, and creativity on design product. Prerequisite: HEV 240. Corequisite: HEV 241, or permission of instructor.

HEV 346 Advanced CAD for Apparel 3(2-2)
Apparel design and production techniques using advanced computer systems and CAD software. Portfolio development and CAD related career exploration. Prerequisites: HEV 140 or HEV 250; HEV 141, HEV 246.

HEV 350 Professional Study Tour 2-3(Spec)
Tours to relevant sites within merchandising and design industries which may include producers, trademarts, museums, etc. Credit based on tour content and depth of study. CR/NCR only.

HEV 355 Textile Analysis 3(2-2)
Use of standardized testing in quality control of textiles for end-use and serviceability. Prerequisite: HEV 155.

HEV 356 Visual Merchandising 3(3-0)
Principles and practices of effective merchandise presentation and display including techniques, resources and evaluation. Prerequisite: HEV 256.

HEV 357 Fashion Production and Promotion 3(2-2)
Experiential course involving all aspects of fashion production. Event design, organization, coordination and promotion, culminating in the production of one or more multimedia fashion events.

HEV 358 Multichannel Fashion Merchandising 3(3-0)
In-depth examination of multichannel fashion merchandising including topics such as store locations, catalog and web merchandising, mobile commerce, TV home shopping, and virtual fashion. Prerequisites: HEV 246, 256.

HEV 361 Experimental Foods 3(2-2)
Scientific examination and statistical analysis of the behavior of foods. Prerequisites: HEV 160; CHM 131, 132; STA 202 or HSC 544.

HEV 363 Food Safety and Sanitation 1(1-0)
Safe handling of foods as related to purchase, storage, preparation, and service. Certification in sanitation by the National Education Foundation is earned by passing exam. Prerequisites: HEV 160 or permission of instructor.

HEV 365 Quantity Food Production 2(2-0)
The principles of production: standardized recipes; schedules; forecasting; quality and hazard analysis; yields; principles of cookery in quantity; kitchen departmentalization; production, distribution and service systems. Successful completion of the Michigan Occupational Competency Assessment Center's exam in food management results in credit for this course. Prerequisite: HEV 160.
HEV 336 Quantity Food Production Laboratory 2(0-4)
Techniques of food preparation in quantity using a wide variety of equipment.
Application of the principles of procurement, food production, safety, sanitation, distribution and service. Successful completion of the Michigan Occupational Competency Assessment Center's exam in food management results in credit for this course. Prerequisites: HEV 160, HEV 363, HEV 365.

HEV 367 Institutional Food Production Laboratory 1(0-2)
Techniques of institutional food preparation and service using a wide variety of equipment. Service to the institution's target population will be emphasized. Prerequisites: HEV 363 with ServSafe Certification, HEV 365, HEV 370

HEV 370 Nutrition 3(3-0)
Principles of normal nutrition as related to the health of all age groups. This course is approved for offering in a distance learning format. (Group II-A)

HEV 375 Nutrition and Performance 3(3-0)
Focus is upon sports nutrition for athletes and individuals in recreation. Analysis of the interaction among energy expenditure, fuel needs and utilization, and all nutrients. Prerequisites: HEV 370

HEV 381 Education for Family Life and Human Sexuality 3(3-0)
Course designed to familiarize human development and family studies students with the methods and materials necessary to teach and work as a family-helping professional. Prerequisites: HEV 100 or EDU 280 or PSY 220; HEV/SOC 213 or HSO 222; HEV 211; 3 other credits in the Family Studies major or Family Life and Human Sexuality minor.

HEV 397 Special Topics 1-4(Spec)
Selected problems of interest to students which are not normally included in existing courses.

HEV 402 Human Growth and Development: Guidance for Young Children 4(Spec)
Methods and theories of guidance for working with children in early childhood settings. Supervised laboratory experience. Prerequisite: HEV 303 with a grade of C+ or better.

HEV 403 Human Growth and Development: Curriculum and Planning in Pre-Primary 3(3-0)
Addresses the theoretical and practical aspects of a variety of developmental-appropriate approaches to teaching young children. Opportunities to plan experiences in all curricular areas. Prerequisite: HEV 303 with a grade of C+ or better.

HEV 409 Human Growth and Development: Lead Teaching Experience 8(Spec)
Development of professional skills for working with young children and families. Supervised lead teaching experience in the Human Growth and Development Laboratory. Prerequisites: HEV 219, grade of C+ or better in both HEV 402 and HEV 403.

HEV 411 Family Relations 3(3-0)
Psychosocial factors affecting interpersonal relations throughout the family life cycle. Prerequisite: HEV 211 or equivalent.

HEV 413 Facilitating Discussion in Human Sexuality Groups 3(3-0)
The purpose, rationale, professional issues, planning, techniques and methods, learning objectives, evaluation, and guided experience in facilitating discussion in human sexuality groups. Prerequisites: permission of instructor: HEV 213 or SOC 213 or WST 213.

HEV 414 Human Development and Family Studies Research Methods 3(3-0)
This course is an introduction to research methods within human development and family studies. Prerequisites: HEV 100 or PSY 220 or EDU 280; HEV 211, HEV 291; PSY 211; 3 other HEV credits in human development and family studies.

HEV 418 Family Development in Late Life 3(3-0)
This course examines individual development and aging within the context of the family: marriage, singlehood and widowhood; intergenerational relations and grandparenthood; sibling relations and friendships.

HEV 419 HDFS Internship 1-2(Spec)
A structured internship that provides students with an opportunity to work in a professional setting serving the needs of individuals and families. No more than 6 credits may be taken each semester. Prerequisites: HEV 319 or HEV 506 with a grade of C+ or better; a signed major in Child Development or Family Studies.

HEV 422 Seminar in Interior Design 3(3-0)
Prerequisites: HEV 339, 436. Must be taken during the final Spring semester before graduation.

HEV 433 Professional Practices in Interior Design 3(3-0)
Application of internships and business procedures to the establishment and general management of a design practice. To be taken immediately following HEV 432. Prerequisite: HEV 432.

HEV 434 Advanced CAD for Interiors 3(2-2)
Advanced application of CAD software. Emphasis on application of the computer as a design tool. Topical applications and computer graphic methods. Prerequisites: HEV 334, HEV 337; Prerequisites or Corequisites: HEV 339, 436.

HEV 436 Lighting and Other Mechanical Systems 3(2-2)
Considers the role of mechanical systems in the design of interior spaces with emphasis on lighting, and including heating, ventilation, air conditioning, and acoustical systems. Prerequisites: HEV 139, HEV 138, HEV 131, HEV 337; MTH 055.

HEV 437 Interior Design Studio IV: Contract 3(1-4)
Application of visual, conceptual and functional design processes in the design and space planning of commercial and public spaces. Prerequisites: HEV 334, 339, 436; pre- or co-requisite HEV 434

HEV 438 Interior Design Internship 2(Spec)
Supervised internship of 250 hours in an interior design firm or related field designed to complement classroom learning. Taken semester prior to HEV 433. Prerequisite: HEV 338.

HEV 439 Interior Design Studio V: Senior Thesis 3(1-4)
A capstone studio course that focuses on projects with increasing scope and complexity and topics that vary depending on current trends in interior design. Prerequisite: HEV 437.

HEV 456 Fashion Buying 3(2-2)
Fundamentals of the fashion buying function: practices, procedures, and techniques including merchandising calculations and computer applications. Prerequisites: HEV 335; BIS/CPS 106; Successful completion of math competency.

HEV 457 Portfolio Techniques 3(3-0)
A capstone course to develop a professional portfolio and an e-portfolio integrating knowledge across the curriculum, experiential learning, technical presentation and communication skills. Prerequisites: HEV 335; senior standing; or permission of instructor

HEV 463 Menu Planning: Design and Service 3(3-0)
Concepts of menu design: copy, layout, types, design, nutrition, construction, pricing techniques and consistency of concept. Service styles and front-of-the-house management presented. Prerequisite: HEV 370.

HEV 465 Foodservice Facilities Design 3(2-2)
Equipment, energy, space allocation and work analysis studied to produce a foodservice facility which best serves the target market. Computer Assisted Design utilized. Prerequisite: HEV 365.

HEV 467 Quantity Food Purchasing 3(3-0)
Interaction with intermediaries, buying methods, identification and specifications for food and non-food items presented. Prerequisites: HEV 160.

HEV 468 Foodservice Internship 3(Spec)
An internship of 240 hours in food production. HEV 566 may be a substitute for this course on the Foodservice major for students demonstrating one or more years of qualifying experience. Approval of instructor required. Prerequisites: HEV 365; HEV 366, HEV 465, HEV 467.

HEV 469 Foodservice Systems Administration 3(3-0)
Study of subsystems in institutional foodservices: purchasing, storage controls, cost containment, personnel selection and development, organizing, leadership, decision making, facilities control. Prerequisites: HEV 365. Recommended: HEV 463.

HEV 470 Applied Nutrition 3(3-0)
A detailed examination of human nutritional needs and how nutritional science can be applied to meet those needs in health and disease. Prerequisites: HEV 370.

HEV 471 Medical Nutrition Therapy I 3(3-0)
This course addresses the application of medical nutrition therapy in the treatment and management of injury, illness and other disease conditions. Prerequisites: HEV 370, HEV 473; BIO 392; CHM 342. Corequisites: BIO 392 and HEV 473.

HEV 472 Medical Nutrition Therapy II 3(3-0)
The application of medical nutrition therapy in the treatment and management of injury, illness and other disease conditions. Continuation of HEV 471. Prerequisite: HEV 471.

HEV 473 Advanced Nutrition 4(4-0)
Biological needs in human nutrition based on current research and its applications. Prerequisites: HEV 370; BIO 392; CHM 421 or CHM 521.

HEV 474 Nutrition in the Life Cycle 3(3-0)
Analysis of the factors which affect food and nutrient needs for growth, development, and maintenance throughout the entire life span. Prerequisite: HEV 370.

HEV 475 Nutritional and Herbal Supplements 3(3-0)
The potential impact of non-nutrient components in food, nutritional supplements, and herbs in the prevention and treatment of disease via integrative and alternative medical approaches. Prerequisite: HEV 370.

HEV 477 Assessing Nutritional Status 2(1-2)
Introduces dietary, anthropometric, biochemical, and clinical approaches to assessing nutritional status. Prerequisite: HEV 370.

HEV 479 Professional Issues in Dietetics 1(1-0)
An analysis of the profession of dietetics: Careers, issues and trends. Preparation for acquisition of an American Dietetics Association approved internship. Prerequisites: Senior standing, signed Dietetics major.

Descriptions of courses approved for the University Program appear in italic type.
HEV 481 FCS/LME Teaching Methods 3(3-0)
- Covers material designed to prepare students for an endorsement in Family and Consumer Sciences/Life Management Education. Prerequisites: completion of all courses in Family Studies/Life Management Education Major.

HEV 490 Independent Study 1-6(Spec)
- Student-initiated learning activity focusing on a faculty-approved topic. Prerequisite: Permission of instructor.

HEV 497 Special Topics 1-15(Spec)
- Consideration of subject matter not included in courses currently listed in Bulletin. Prerequisites: See class schedule.

HEV 506 Human Growth and Development: Practicum in Parent Involvement 3(2-2)
- Analysis of goals, trends, methods and models of parent involvement with opportunities to plan programs for parents, and to work with parents in professional settings. Prerequisites: HEV 307; one of: HEV 302, HEV 303, HEV 306.

HEV 508 Human Growth & Development: Preschool Administration 3(3-0)
- The functional role of the preschool program director, legal and administrative controls. Prerequisite: HEV 303.

HEV 510 Human Growth and Development: Seminar 3(3-0)
- Course examines the perspectives of human development; life span research; the domains of learning/development and the philosophy and history of human development. Prerequisites: any two 300 level Human Growth and Development courses; or Human Development and Family Studies graduate status; or permission of instructor.

HEV 511 Seminar in Human Sexuality 3(3-0)
- Survey of professional literature pertaining to human sexuality. Prerequisites: HEV 213 or HSC 222.

HEV 512 Seminar: Family Relations 3(3-0)
- Study of interpersonal relationships in several selected cultures. Prerequisites: HEV 211 or HEV 411 or SOC 411, or permission of instructor.

HEV 513 Readings in the Family 3(3-0)
- Survey of professional literature related to the family. Prerequisites: HEV 211 or HEV 411 or SOC 411, or permission of instructor.

HEV 515 Current Issues in Marriage and the Family 3(3-0)
- The course will examine pro and contra viewpoints regarding current marriage and family issues. Critical thinking and analytical skills will be introduced. Prerequisites: HEV 100 or PSY 220 or EDU 280; HEV 211 or SOC 411; HEV 411; or permission of instructor.

HEV 516 Family Development: Early Adulthood/Middle Age 3(3-0)
- A study of the tasks and transitions of the periods of the family life cycle from early adulthood through middle age. Prerequisites: HEV 100 or PSY 220; HEV 211 or HEV 411 or SOC 411; or permission of instructor.

HEV 517 Readings in Marital Counseling and Divorce 3(3-0)
- Analysis of changing philosophical conceptualizations of marriage and family, as reflected by emerging issues in marriage counseling and divorce. Prerequisites: HEV 211.

HEV 546 Experimental CAD for Apparel 3(2-2)
- Creative use of industry-specific CAD system as applied to standards prevalent in the manufacture of apparel. Emphasis on advanced portfolio development and presentation boards. Prerequisites: HEV 346 with grade of C or better.

HEV 547 Functional Apparel Design 3(2-2)
- A systematic approach to apparel design integrating knowledge of the needs and functions of the wearer, the structural properties of textiles and apparel design. Prerequisites: HEV 241, HEV 345, HEV 355.

HEV 550 Textiles and Apparel in a Global Economy 3(3-0)
- Examination of issues related to the globalization of the textile/apparel industry, theories of international development and expansion, and the distribution of fashion goods. Prerequisites: 56 semester hours with at least 12 hours in apparel merchandising and design courses including HEV 335.

HEV 570 Nutritional Education 4(4-0)
- Teaching strategies, advising techniques, resources, and motivational techniques as specifically applied to patients/clients in nutrition programs and patient/clients receiving nutrition services. Prerequisite/Corequisite: HEV 471; or permission of instructor.

HEV 573 Field Work: Community Nutrition 3(Spec)
- Consulting, teaching and supportive research and sciences in the field with a nutritionally vulnerable group. Prerequisites: HEV 370 and HEV 570, or permission of instructor.

HEV 575 Geriatric Nutrition 3(3-0)
- A detailed description of nutrition for the elderly, including special nutritional considerations, food selection patterns, nutritional status and strategies for disease prevention. Identical to GRN 575. Credit may not be earned in more than one of these courses. Recommended: HEV 370.

HEV 577 Advanced Topics in Nutrition: Eating Disorders 3(3-0)
- Analysis of factors involved in etiology, assessment, medical consequences, treatment and prevention of eating disorders. Recommended: HEV 370. This course is approved for offering in a distance learning format.
HOA 439 Seminars in Casino Management 3(3-0)
Special topics in casino problems. Course open to experienced casino personnel. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

HOA 442 Sociology of Gambling 3(3-0)
Analysis of patterns of participation in various forms of gambling, the political/economic background of gambling, and the effects of gambling on communities, lifestyles and value systems. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

Honors (HON)

See the Honors Program under the Special Studies section (see index for page number).

HON 100 Introduction to Honors 1(1-0)
This course introduces Honors students to the Honors Program through speakers, readings, service projects, academic planning and skills sessions, to achieve an optimal educational experience. CR/NC only. Prerequisites: Admission to the Honors Program

HON 102 Honors Colloquium 1-3(Spec)
Colloquia are experimental or novel courses which are open to all Honors students. Colloquium intend to introduce new subjects or questions or to probe deeply into more narrowly defined areas. Repeatable up to 3 credits when content previously studied is not duplicated. Prerequisite: Honors students only.

HON 110 Speaking and Writing with Critical Awareness 6(6-0)
Oral competency and freshman level written competency primarily for Centralis Scholars, other students admitted with permission of instructor. Prerequisites: receipt of a Centralis Scholar Award or permission of instructor.

HON 120 The Individual and Community in Modern Society 6(6-0)
A comprehensive overview of behavioral and social science analyses of individual, social structural, and institutional relationships. Emphasizes past and present social dimensions of human life. Prerequisite: receipt of a Centralis Scholarship Award or permission of instructor. Prerequisite or corequisite: HON 110 or permission of instructor. (Groups I-A and B)

HON 130 Western Cultural and Intellectual Traditions 3-6(Spec)
A comprehensive overview of the origins, development, and expression of the cultural and intellectual traditions that characterize “Western” Civilization. Prerequisites: Honors standing. SPECIAL NOTE: This course is to be offered for 3 hours of credit in successive Fall and Spring terms and may be taken for a maximum of 6 hours. A student must complete both semesters in order to fulfill Groups I-A and I-B in the University Program. If one does not complete both, then the student may count the course solely as credit toward commencement and must complete other courses to fulfill the General Education requirement of Groups I-A and I-B.

HON 140 Symmetry in Science: From Microscopic to Macroscopic Systems 6(6-3)
An introduction to the principles, methods, nature and theories associated with the natural sciences and mathematics. Uses a theme of symmetry. Prerequisites: receipt of a Centralis Scholarship Award or permission of course instructor. (Groups I-A and B)

HON 150 Racism in the American Experience: Origins, Development, and Impact 6(6-0)
This course will explore the development of racism in America and its profound and diverse impact upon us as a nation and a people. Prerequisites: receipt of a Centralis Scholarship Award or permission of course instructors.

HON 197 Centralis Freshman Seminar 3-6(Spec)
Seminars focused on special topics and skills for freshman Centralis students. Repeatable up to 6 credits when content previously studied is not duplicated. Prerequisite: Centralis freshmen only.

HON 321 Seminar 3-12(Spec)
Honors seminars are more cognitively advanced courses addressing various topics, themes, and problems, and assuming experience and skill in analysis, synthesis, critical evaluation, and research. They are open primarily to sophomores, juniors, and transfer students.

HON 399 Independent Study 1-6(Spec)
Provides an opportunity for the student to investigate an approved topic which relates to her/his special needs and interests.

HON 401 Confrontation Colloquium 3(3-0)
These team-taught courses provide an opportunity for advanced multidisciplinary scholarship in which an integrating activity, project, or exhibit will be required.

HON 499 Senior Project 3-6(Spec)
An opportunity for senior honors students individually to design and execute multidisciplinary scholarship. Upper-division honors students are expected to complete either HON 401 or 499.

Health Professions (HPS)

See the Herbert H. and Grace A. Dow College of Health Professions for more information.

HPS 101 Introduction to the Health Professions 2(1-2)
Provides students with a broader understanding of the various health professions while exploring personal characteristics necessary for self identification of career direction. Prerequisites: Health professions residential college student and permission of instructor.

HPS 582 Special Topics 1-3(Spec)
Exploration of special topics in the field of Athletic Training/Sports Medicine and other health related areas. May be repeated to a maximum of 3 hours. Identical to ATR 582. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: ATR 430 and permission of instructor.

Hospitality Services Administration (HSA)

See the Department of Marketing and Hospitality Services Administration for more information.

HSA 120 Introduction to the Gaming Industry 3(3-0)
Overview of gaming industry, including scope, staffing, security, control, taxation, government regulations, and social, economic, and cultural impacts of gaming on host community. Prerequisites: None

HSA 210 Effective Supervision: Principles and Practices 3(3-0)
Prepares students to be effective first-line supervisors in a variety of organizational settings by using cases and practices applied to basic managerial processes. Identical to MGT 210. Credit may not be earned in more than one of these courses.

HSA 240 Introduction to Hospitality Services Administration 3(3-0)
Lectures and travel giving a broad introduction to the services industry in the United States and the world. Additional fee required.

HSA 245 Wines of the World 1(1-0)
This is an introduction to the subject of wine, its history, variety, production, commercial and social role. Course participants gain experience in identifying wines, appraising value, serving, and discussing wines intelligently and constructively in today's era of social responsibility.

HSA 297 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topics will be listed on students' transcripts.

HSA 331 Hospitality Industry Information Systems 3(3-0)
Concepts and design of information systems and the role of the computer in hotels, restaurants and travel-related industries. Prerequisites: ACC 202; BIS 221; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 341 Services Marketing 3(3-0)
Planning and implementation of marketing strategy and application of the marketing mix to services including hospitality, banking and health services. Identical to MKT 341. Credit may not be earned in more than one of these courses. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 342 Hospitality Facilities 3(3-0)
An examination of where and why the hospitality services industry client travels at home and abroad and the economic impact of tourism expenditures. Identical to RPL 343. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 343 Tourism 3(3-0)
An examination of where and why the hospitality services industry client travels at home and abroad and the economic impact of tourism expenditures. Identical to RPL 343. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 346 Franchising 3(3-0)
This course explores the major functional areas of franchising, franchising agreements, characteristics of the franchisor and franchisee, franchising opportunities, legal concerns, and franchise strategies. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 350 Lodging Operations 3(3-0)
A detailed look at the multi-dimensional lodging operations from a manager's perspective. Prerequisites: 56 semester hours completed; admission to Professional Business Studies.

Descriptions of courses approved for the University Program appear in italic type.
HSA 390 Field Studies in Hospitality Services Administration 3(3-0)
Activities which may include industrial visitations and work study in confer-
ence with supervision of cooperating organization, professor and student.
Prerequisites: permission of instructor; 56 semester hours completed; admis-
sion to Professional Business Studies or listed on signed major or minor.
HSA 397 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in
existing courses. Specific topic will be listed on the students transcript.
Prerequisites: 56 semester hours completed; admission to Professional Business
Studies or listed on signed major or minor.
HSA 445 Advanced Food and Beverage Systems Management 3(3-0)
Studies in advanced management requirements in food and beverage sys-
tems. Prerequisites: Completion of HEV 365/366 encouraged; 56 semester
hours completed; admission to Professional Business Studies or listed on
signed major or minor.
HSA 447 Financial Management in the Hospitality Service Sector 3(3-0)
Acquaints the student with current and anticipated financial environment
for lodging and food services organizations and develops skills in manag-
ing financial resources in the industry. Prerequisites: MGT 312; ACC 201,
ACC 202; 56 semester hours completed; admission to Professional Business
Studies or listed on signed major or minor.
HSA 490 Hospitality Internship 3(Spec)
Full-time summer designed work experience in hospitality operations
agreed to by student and faculty coordinator. Detailed written report required.
Prerequisites: 56 semester hours completed; HSA major or concentration;
admission to Professional Business Studies or listed on signed major or
minor.
HSA 491 Independent Studies 1-6(Spec)
Directed reading or research on an approved topic. Open to seniors in
good academic standing. Prerequisites: prior permission of instructor and
department chairperson; 56 semester hours completed; admission to Profes-
sional Business Studies or listed on signed major or minor.
HSA 492 Practicum in Small Business 3(Spec)
Provides the student an opportunity to analyze the accounting, finance,
marketing, management, and production system of an ongoing small busi-
ness. Identical with ACC/FIN/MGT/MKT/BIS 492. Prerequisites: 56 sem-
ster hours completed; permission of instructor; admission to Professional
Business Studies or listed on signed major or minor.
HSA 542 International Tourism 3(3-0)
This course focuses on the strategic management of international tourism
in hospitality organizations, associations, and government agencies. Prereq-
usities: 86 semester hours completed; admission to Professional Business
Studies or listed on signed major or minor.
HSA 543 Hospitality Industry Organizations and Operations 3(3-0)
This course examines the organizational structure and operational aspects
of lodging and restaurant organizations. Prerequisites: 86 semester hours
completed; admission to Professional Business Studies or listed on signed
major or minor.
HSA 544 Current Research Issues in Hospitality and Tourism 3(3-0)
Examination and application of major research methodologies and discus-
sion of research issues pertaining to the Hospitality/Tourism Industry. Prer-
quisites: 86 semester hours completed; admission to Professional Business
Studies or listed on signed major or minor.
HSA 546 Management in the Hospitality Service Sector 3(3-0)
Management and personnel functions as they relate to the hospitality in-
dustry; skills necessary to manage hotels, clubs, resorts; role of food service
in these operations. Prerequisites: 86 semester hours completed; admission
to Professional Business Studies or listed on signed major or minor.
HSA 597 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in
existing courses. Specific topic will be listed on the students transcript.
Prerequisites: admission to Professional Business Studies and senior stand-
ing; 86 hours completed.

For 600 and 700 level course descriptions, consult the current College of
Graduate Studies Bulletin.
HSA 791 Independent Studies 1-6(Spec)
HSA 797 Special Topics 3-6(Spec)
HSA 798 Thesis 1-6(Spec)

Health Sciences (HSC)
See the School of Health Sciences for more information.

HSC 106 Healthy Lifestyles 3(3-0)
Focus on individual health and wellness concepts from interdisciplinary
perspectives. Designed to assist the individual in striving for lifelong learning
about healthier lifestyles. (Group IV-A)

HSC 107 Drugs and the Athlete 1(1-0)
An orientation for the student athlete in the basic chemical substances and
nutrition as an ergogenic aid as they affect performance. Recommended:
Permission of department chairperson. This course is approved for offering
in a distance learning format.

HSC 190 Introduction to Exercise Science 1(1-0)
Introduction to the profession of exercise science, including elements from
the basic and clinical sciences, and other allied health professions that inte-
egrate with exercise science.
HSC 201 Medical Terminology 2(2-0)
A self-study module course for learning the meaning and use of prefixes,
suffixes, root words and terms commonly used in health care fields. CR/NCR
option.

HSC 202 Women’s Health 3(3-0)
Study of women’s health, including reproductive health issues and female
health problems. Emphasis on knowledge for active participation in health
care, healthy lifestyles, and preventive measures. Identical to WST 202.
Credit may not be earned in more than one of these courses.

HSC 203 Leadership for the Health Professions 3(3-0)
This course provides students entering health professions with concepts,
processes and techniques to equip them to assume more responsibility, to
serve in leadership roles, and to maintain professional/personal balance.

HSC 205 Responding to Emergencies 2(1-2)
Includes CPR and first aid care. American Red Cross certification for first
aid and CPR can be earned.

HSC 211 Human Anatomy and Physiology 3(3-0)
Introductory course in structure and function of the human body. (Group
I-A)

HSC 212 Applied Physiology and Kinesiology 3(3-2)
Emphasizes functional aspects of human performance and their applica-
tion. Identical to PES 212. Credit may not be earned in more than one of
these courses. Prerequisite: HSC 211 or equivalent, or permission of
instructor.

HSC 213 Anatomy & Physiology Laboratory 1(0-2)
A learning experience using laboratory techniques and procedures to de-
velop an understanding of the human body structure and function. Prerequi-
site: HSC 211 or concurrent enrollment.

HSC 214 Human Anatomy 4(3-3)
A comprehensive course in the structure of the human body organized by
systems. Laboratory work includes identification of fundamental anatomical
structures on models and cadavers. Prerequisites: HSC 211 or college level
natural science course; or permission of instructor.

HSC 215 Human Physiology 4(3-2)
A comprehensive course that studies the function of the organ systems of
the human body. Laboratory work in fundamental physiological principles is
included. Prerequisite or co-requisite: HSC 214.

HSC 216 Biomechanics and Kinesiology 3(2-2)
The study of functional aspects of human movement, including basic bio-
mechanics and structural kinesiology. Prerequisites: HSC 214, HSC 215.

HSC 219 Exercise Conditioning for Health Fitness Professionals 2(0-3)
Students will learn to perform and teach various exercises utilized in fitness
centers and achieve a moderate standard of fitness themselves. Prerequi-
sites: HSC 214 and HSC 215 and signed Exercise Science minor.

HSC 220 Basics In Health Fitness 3(2-2)
Theory and practices related to exercise testing and administration. Prac-
tical experience in body composition techniques, electrocardiography, and
fitness evaluation. Prerequisites: HSC 214, HSC 215 or equivalent.

HSC 222 Sexuality In Health Education 3(3-0)
Emphasis on understanding and human values as related to programming
sex education in health education classes. Not open to students with credit
in HSC 527.

HSC 235 Psychoactive Drugs 3(3-0)
The study of psychoactive drugs: what they are; how they work; and why
people use and/or abuse them. Not open to students with credit in HSC 528,
HSC 529, or HSC 530. This course is approved for offering in a distance
learning format.

HSC 236 Substance Abuse Intervention Programming 3(3-0)
The impact of drug abuse on society and efforts to prevent substance
abuse, including prevention, interdiction, treatment and follow-up. Prerequi-
site: HSC 235 or equivalent.

Descriptions of courses approved for the University Program appear in italic type.
HSC 297 Special Topics 1-12(Spec)
Contains subject matter not included in courses currently listed in the Bulletin. Prerequisite: Permission of Instructor.

HSC 308 Work Physiology 3(3-0)
Lectures on basic principles of physiology of exercise. The basics of exercise, performance conditioning, and the human organism response to these conditions. Identical to PES 308. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211 or equivalent or permission of instructor.

HSC 310 ECG Assessment 2(2-1)
Emphasis is placed on the recognition and interpretation of normal and abnormal resting and exercise ECG’s. Includes lab experience in resting and exercise ECG monitoring. Prerequisites: HSC 214, HSC 215; or permission of instructor.

HSC 313 - Field Experience in School Health Education 1(Spec)
A 30-hour field experience of on-site observation and participation under the supervision of the department and a secondary school health education teacher. CR/NC only. Prerequisites: EDU 107; HSC 205, HSC 211, HSC 222, HSC 225; HSC 503 or HEV 370.

HSC 317 Community Health 3(3-0)
Introduction to public health, and services provided to citizens and educators by official and voluntary health agencies. This course is approved for offering in a distance learning format.

HSC 319 Methods and Materials in Community Health Education 3(3-0)
Skills and techniques in writing, developing printed materials, public speaking, and group dynamics as they relate to community health education programs.

HSC 322 Supervised Field Training 8(Spec)
A minimum of 400 clock hour work experience in a health agency, supervised by a qualified health educator. CR/NC only. Prerequisite: Students are encouraged to have all courses completed in the major prior to field training; applications in field training must be approved in advance by the area coordinator.

HSC 323 Community Organization Methods 3(3-0)
The course examines the principles of community organization practice for health education. Community organization models, concepts, skills, strategies, and theories will be addressed.

HSC 333 Managing the Health of Populations 3(3-0)
This course provides the foundation for exploring health of populations and communities within the context of applied epidemiology and sound healthcare delivery administration.

HSC 340 Curriculum in Health Education 3(3-0)
Study of modern curriculum philosophy, structure, and content within elementary, junior, and senior high schools.

HSC 343 Health Education in the Elementary School 3(2-2)
A study of elementary health education programs. Upon successful completion (C+ or better) the students will be qualified to teach Michigan Model Comprehensive Health, Reproductive Health and HIV/AIDS education. Prerequisites: admission to teacher education or teacher certificate.

HSC 346 Methods and Resources in Teaching Health 3(3-1)
Methods and resources in teaching health education. A lab will be devoted to micro-teaching. Prerequisite or Corequisite: HSC 340.

HSC 350 Community Service in the Health Educators 2(2-0)
A service-learning experience where the student is engaged in a hands-on service project. Academic coverage includes the philosophy, objectives, and methods of community service. Prerequisite: HSC 317 or permission of instructor.

HSC 352 Environmental Health 3(3-0)
Emphasis on today’s environmental problems related to health, air, water, radiation, housing, urbanization, disease, and man’s responsibilities and remedial actions to these problems.

HSC 390 Health and Aging 3(3-0)
A study of age-related changes of the body, health concerns, healthy lifestyles and health care for older adults.

HSC 411 Pathophysiology 3(3-0)
Study of body’s physiological responses to disease states. Emphasis is placed on the interactions among body systems and the alterations in homeostatic mechanisms. Prerequisite: HSC 211 or HSC 215 or equivalent.

HSC 414 Decision Technologies in Health Care 3(3-0)
This course surveys two computer-based tools, simulation and geographical information systems, commonly used to market and manage the delivery of health services. Prerequisite: An introductory probability or statistics course.

HSC 418 Professional Aspects of Health Education 2(2-0)
This course will address professional issues relating to the history, philosophy, ethics, practice, settings, and competencies of health education. Prerequisites: HSC 317 or concurrent enrollment.

HSC 419 Community Health Education, Assessment, Planning and Program Evaluation 3(3-0)
Models, theories, methodologies, interventions, and evaluation of community health assessments and programs will be discussed, along with other health education responsibilities and initiatives. Prerequisites: HSC 418 or concurrent enrollment; HSC 544 or concurrent enrollment.

HSC 420 Health Fitness Assessment 3(2-3)
Practical course in exercise testing as used in health fitness settings including tests of cardiovascular function, muscular strength and endurance, flexibility, body composition and lung function. Prerequisites: HSC 211 or HSC 214 and HSC 215; HSC 308.

HSC 421 Personal Training 3(2-3)
Practical course to instruct students in leading safe and effective exercise programs one-on-one with their clients in a variety of environments. Prerequisites: HSC 308; HSC 420 (or concurrent enrollment).

HSC 422 Internship - Community Health 6(Spec)
Application of health education and health promotion principles in a community health agency. Experience supervised by a qualified health educator. CR/NC only. Prerequisites: HSC 319, HSC 323, HSC 514, at least 45 hours in the major completed. Applications must be approved in advance by the internship coordinator.

HSC 423 Practicum in Personal Training 2(1-3)
This course is designed for students to obtain experience leading safe and effective exercise programs with clients one-on-one. CR/NC Only. Prerequisites: HSC 205, 308, 420, 421.

HSC 424 Practicum in Health Fitness 2(0-6)
Practical experience with fitness appraisals/exercise prescriptions for adults and staff functions in various campus facilities. CR/NC only. Prerequisites: HSC 205, 308, and permission of instructor.

HSC 425 Health Fitness Program Administration/Management 3(3-0)
This course will prepare students to work in health fitness settings organizing, administering and supervising programs for apparently healthy individuals or those with controlled risks. Prerequisites: HSC 420, HSC 421.

HSC 500 Health Informatics 3(3-0)
Overview of the broad spectrum of healthcare informatics issues, challenges and opportunities faced by healthcare managers. Emphasis is on managing healthcare information as a corporate asset and on the relationship of health informatics to the quality, accessibility and cost of healthcare. Prerequisites: HSC 317 or permission of the instructor.

HSC 503 Health Implications of Obesity 3(3-0)
Obesity and overweight will be studied with special emphasis on diet, nutrition, and exercise. Modes of prevention and treatment will also be discussed.

HSC 505 Work Injury Prevention 3(3-0)
The study of etiology, epidemiology, treatment, management and prevention of neuromuscular and musculoskeletal injuries in workplace settings. Prerequisites: HSC 211 or HSC 214.

HSC 506 Health and Physical Development in Late Life 3(3-0)
This course examines in depth the processes of normal aging as well as important issues affecting the health of older adults. Prerequisites: BIO 101 or permission of instructor.

HSC 507 Introduction to Health Service Organizations and Systems 3(3-0)
Macro level study of healthcare systems including delivery, integration, reimbursement mechanisms, multi-organizational and interorganizational arrangements, health policies, and future solutions.

HSC 508 Education on Sexual Aggression for School/Community 3(Spec)
This course addresses the realities of sexual aggression, and how schools, corporations, and communities can educate their respective populations on these topics. Identical to PES 508. Credit may not be earned in more than one of these courses. Prerequisites: PES 143 or permission of the instructor.

HSC 510 Independent Reading Experience 1-4(Spec)
Individual reading an experience designed for professional enrichment. 4-hour maximum. CR/NC only. Prerequisite: Permission of Instructor.

HSC 512 Special Topics in Health Education 1-12(Spec)
In-depth consideration of relevant, pertinent health issues.

HSC 514 Biostatistics and Epidemiology 3(3-0)
This course presents biostatistical and epidemiological concepts, principles and methods as they apply to problems within community and public health environments. Prerequisites: MTH 105; HSC 317; or permission of instructor.

HSC 515 Health Promotion in the Workplace 2(2-0)
Content includes needs assessments, organization and management of health promotion programs in the workplace. Guidelines for implementation and evaluation will be studied. Prerequisites: 6 hours of Health Fitness-related credit or permission of instructor.
HSC 516 Travel Course in Health Education 1-6(Spec)
Topics scheduled to study health education, private and voluntary health care programs, museums, hospitals, health clinics, city and school health programs. Prerequisite: Permission of instructor.

HSC 517 Drugs and the Elderly 2(2-0)
An introduction to medication practices and problems among the elderly, and study of selected drugs and their effects on the aging individual. Prerequisites: HSC 390 or permission of instructor.

HSC 519 Death Education and Suicide Prevention 3(3-0)
A holistic study of the cultural, spiritual, legal, ethical, psychological and controversial aspects of death. Emphasis will also be placed on suicide prevention. Prerequisites: must have completed a minimum of 60 semester hours of coursework.

HSC 520 Health Services Administration 3(3-0)
Analysis of organizational patterns, planning procedures, fiscal management, personnel management, and other administrative concerns. This course is approved for offering in a distance learning format.

HSC 522 Consumer Health Education 2(2-0)
Issues of consumer health related to the individual, the community, and society.

HSC 523 AIDS Education 1(1-0)
A concentrated study of Acquired Immune Deficiency Syndrome, including the origin, prevalence, spread, disease process, psychosocial aspects and implications for society. Prerequisites: HSC 106, or teaching certificate, or permission of instructor. This course is approved for offering in a distance learning format.

HSC 524 Workshop on Health Fitness 2(Spec)
Guidelines for fitness appraisals and exercise prescription for healthy and high risk adults.

HSC 525 Sexually Transmitted Disease Workshop 1(Spec)
Concentrated study of sexually transmitted diseases, modes of transmission, and role of public health agencies and schools in coping with the problem.

HSC 526 Mental Health 3(3-0)
Concentrated study of mental health and illness as related to home, school, and community. This course is approved for offering in a distance learning format.

HSC 527 Sex Education Workshop 1(Spec)
Concentrated study of sex education and series of home, school, and community. Not open to students with credit in HSC 222.

HSC 528 Smoking and Health Education Workshop 1(Spec)
Concentrated study of physiological, psychological, sociological, and educational aspects of smoking. Not open to students with credit in HSC 235.

HSC 529 Alcohol Education Workshop 1(1-0)
Concentrated study of physiological, psychological, and sociological aspects of alcohol education. Not open to students with credit in HSC 235. This course is approved for offering in a distance learning format.

HSC 530 Drug Abuse Workshop 1(Spec)
Concentrated study of the effects of drugs and narcotics. Roles of home, school, and community in drug education. Not open to students with credit in HSC 235. This course is approved for offering in a distance learning format.

HSC 532 Diversity Issues in the Health Professions 3(3-0)
Developing an understanding of diversity issues in order to become a more effective multicultural health practitioner. Prerequisites: HSC 106 or HSC 317 or graduate standing or permission of instructor.

HSC 534 Workshop in Principles of Cardiovascular Health and Disease 1(Spec)
Concentrated study of the physiological aspects of the cardiovascular system and its adaptation to stress.

HSC 535 Family Planning Programming 1(Spec)
Analysis of the methods of family planning and family planning programming, and their effects on population control.

HSC 537 Stress Reduction Workshop 1(Spec)
Systematic evaluation of stress and methods used to effectively reduce stress so that a healthier life style is possible.

HSC 538 Development of Proposals and Reports in Health Administration 3(3-0)
Emphasis format, content, and writing skills necessary for administration of health programs to prepare proposals, reports, and publications.

HSC 544 Biostatistics 3(2-1)
Computation of vital statistics’ rates and other statistical methods applicable to problems in public health.

HSC 545 Health Planning 3(3-0)
Study of strategic and operational planning methodologies employed by administrators, educators and planners in health care facilities, community health agencies and health programs. Recommended: Junior standing or permission of instructor.

HSC 546 Microcomputer Applications to the Health Sciences 3(3-0)
Microcomputer applications in school and community health, health services administration, health promotion and exercise science, application of current software utilized by the health fields. Prerequisite: CPS 100 or BIS 104, or permission of instructor.

HSC 547 Health Risk Identification and Management 3(3-0)
Health risk factors associated with cardiovascular and other chronic diseases will be identified and studied. Management, and risk to morbidity and mortality will be emphasized. This course is approved for offering in a distance learning format.

HSC 550 Stress Test Administration 3(2-2)
Course in theory and methods of administering exercise stress tests using different modes of exercise and consideration of different populations. Includes classroom and practical experiences. Prerequisite: HSC 214, HSC 215, HSC 220, HSC 310; or permission of instructor.

HSC 551 Stress Testing Interpretation 3(3-0)
Course in analysis of information gained from exercise testing, studying deviations from normal, and applications of exercise test information in adult fitness and cardiac rehabilitation programs. Prerequisite: HSC 214, HSC 215, HSC 220, HSC 310, HSC 550; or permission of instructor.

HSC 552 International Health Systems, Organizations and Policy 3(3-0)
This course presents an overview of health systems structure, service delivery, administrative processes and policy dimensions from an international perspective. Health systems, programs and initiatives from various countries and cultural settings are studied as are global health agencies involved in the coordination of health improvement efforts. Prerequisites: HSC 317 or permission of the instructor.

HSC 553 Cardiac Medications 2(2-0)
An examination of classifications, mechanisms of action, indications and names of medications used in treatment of cardiovascular diseases and associated disorders (pulmonary and metabolic diseases). Prerequisites: HSC 214, 215; or permission of instructor.

HSC 555 Health Education in the Elementary School 3(3-0)
Various components of the elementary school program: instruction, curriculum, services, and administration.

HSC 570 Financial Aspects of Health Services Organizations 3(3-0)
This course addresses the main issues surrounding financial administration of health services organizations, particularly hospitals. Prerequisite: ACC 201.

HSC 571 Legal Aspects of Health Services Organizations 3(3-0)
The issues studied are hospital liability, informed consent, medical staff appointments, tort and health services, ethical issues related to health care.

HSC 572 Quality Improvement in Health Services 3(3-0)
Basics, implementation and application of quality management and improvements specific to health care. Statistical principles and illustrative cases are presented. Recommended: HSC 520 or permission of instructor.

HSC 580 Teaching Sexuality and Reproductive Health in Schools 2(2-0)
A workshop designed to meet PA 226 guidelines for teacher qualifications in sex education and reproductive health by providing insight into the content of quality K-12 sex education programs. Prerequisites: A teaching certificate or approval of the instructor.

HSC 581 Managed Care: Origins, Organizations, and Operations 3(3-0)
Covers managed care programs, structures, practice models, roles of physicians and other clinicians, capitation cost-accounting, and forms of reimbursement. Prerequisites: HSC 507, HSC 520 or permission of instructor.

HSC 586 Cardiovascular Disease Risk Factors in Children 3(1-4)
Course reviews cardiovascular disease risk factors of children (CVDRF). Students will be involved in 45 hours of service learning, screening CVDRF of area children. Prerequisites: HSC 214, 215, and 220.

HSC 591 Legal & Regulatory Aspects of Long-Term Care 3(3-0)
This course covers the legal and regulatory issues inherent to the long-term care industry in the United States. In addition, this course serves as preparation for individuals wishing to sit for the National Association of Board of Examiners Exam ("National Exam"). Prerequisites: undergraduate students must have completed 56 credit hours; HSC 571 recommended.

HSC 592 Administration Issues in Long-Term Care 3(3-0)
This course covers the facility management issues of long-term care administration, including aspects of business, regulation and human resources. Prerequisites: undergraduate students must have completed 56 credit hours; HSC 570 recommended.

HSC 593 Resident Care Issues in Long-Term Care Administration 3(3-0)
This course covers the residential and clinical aspects of long-term care administration. Prerequisites: undergraduate students must have completed 56 credit hours.

HSC 595 Health Administration Internship 6(6-0)
This course provides the capstone professional experience at a health organization and the opportunity to apply professional skills, knowledge and behaviors learned in the classroom. CR/NC only. Prerequisites: HSC 317, HSC 407, HSC 520, HSC 570, HSC 571 and permission of advisor for undergraduates; HSC 307, HSC 520, HSC 570, HSC 571, and permission of advisor for graduate students.

Descriptions of courses approved for the University Program appear in italic type.
HST 598 Nature and Dynamics of Destructive Health Habits 3(3-0)
Etiologies and recovery strategies of substance abuse, eating and sexual disorders and the detrimental health habits which undermine healthy lifestyles. Prerequisites: HSC 235 or permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

HSC 604 Epidemiology 3(3-0)
HSC 605 International Health Education 3(3-0)
HSC 612 Individualized Learning Experiences 1-10(Spec)
HSC 617 Community and Public Health 3(3-0)
HSC 619 Continuing Registration for Final Research Project 1(1-0)
HSC 620 Adult Health Education Theory and Practice 3(3-0)
HSC 630 Regional Human Anatomy 3(3-4)
HSC 631 Physiology of Exercise 4(3-2)
HSC 640 Curriculum Design in Health Education 3(3-0)
HSC 646 Methods of Instruction and Allied Health Profession 3(3-0)
HSC 650 Research Methods for Health, Physical Education and Sport, Health and 3(3-0)
HSC 700 Program Evaluation in the Health Fields 3(3-0)
HSC 727 Professional Seminar 3(3-0)
HSC 791 Independent Study 2-3(Spec)
HSC 798 Thesis 1-6(Spec)

History (HST)
See the Department of History for more information.

HST 100 Dynamics of the Past: An Introduction to the Study of History 3(3-0)
Investigates how the past lives in the present and influences the future. Library is used as laboratory to answer historical questions; memorizing answers is deemphasized.

HST 101 The Development of Western Civilization 3(3-0)
Selected political, economic, social, religious, intellectual, and aesthetic elements in the background of present-day western civilization from the beginning of historic times to today. HST 101: from ancient times to 1700 A.D.; HST 102: from 1700 to the present. (Group I-A)

HST 102 The Development of Western Civilization 3(3-0)
Selected political, economic, social, religious, intellectual, and aesthetic elements in the background of present-day western civilization from the beginning of historic times to today. HST 101: from ancient times to 1700 A.D.; HST 102: from 1700 to the present. (Group I-A)

HST 106 Twentieth Century: Western World Issues 3(3-0)
Issues of contemporary importance, such as the threat of nuclear war, the rise of dictatorship, world wars, dissent. (Group III-B)

HST 110 The American Experience 3(3-0)
Surveys of the main themes of American history. Collectively the themes should help us understand who we are-and in turn who we should be. (Group I-A)

HST 111 United States to 1865 3(3-0)
A broad and interpretative study of the United States before the Civil War. (Group III-B)

HST 112 United States 1865 to the Present 3(3-0)
A broad and interpretative study of the United States since the Civil War. (Group III-B)

HST 163 The Latin American Experience 3(3-0)
Introduction to Latin American history and cultures; emphasis given the Precolombian civilizations, European conquest and colonization, and modern Latin America's prospects and problems. (Group IV-B)

HST 168 The Far East 3(3-0)
Japan, China, and related areas from historical beginnings to the present with emphasis on the last two centuries. (Group IV-B)

HST 176 The African Experience 3(3-0)
Introduction to African history and cultures; emphasizes indigenous societies and their development, European influence and control, and the problems and prospects of independent Africa. (Group IV-B)

HST 200 The Medieval Civilization 3(3-0)
Development of a new cultural synthesis as medieval civilization struggles to survive while becoming the predecessor of the modern Western world. (Group I-A)

HST 221 Growing Up in America 3(3-0)
Child rearing, education, social experiences, search for identity, and finding a career from colonial times to the present. Emphasis on late nineteenth and twentieth centuries. Identical to WST 221. Credit may not be earned in more than one of these courses. (Group IV-A)

HST 228 American Business: A History 3(3-0)
A history of American business with primary emphasis on the role of individuals and the evolution of institutions-partnerships, corporations, and conglomerates. (Group III-A)

HST 236 The Near East to Alexander 3(3-0)
The cultural and political development of the Middle East and Egypt from the earliest times to the age of Alexander the Great. (Group IV-B)

HST 237 The Middle East since Muhammad 3(3-0)
An examination of the history and cultures of the Middle East from the origins and expansion of Islam until modern times. (Group IV-B)

HST 238 Ancient Greece and Rome 3(3-0)
The development of Greek and Roman civilization to A.D. 565. (Group I-A)

HST 280 Nazi Germany and the Holocaust 3(3-0)
An examination of the events and ideas in Germany and elsewhere that produced the Nazi state and the Holocaust.

HST 292 Global Perspectives on Non-Western History 3(3-0)
Variable content, examining one non-Western area in the context of world historical patterns and current Michigan social studies requirements. Prerequisites: None

HST 297 Special Studies 1-6(Spec)
Each offering studies a selected historical topic using readings, discussion, lecture, and research as appropriate. Prerequisite: permission of instructor.

HST 300 A Mid-Tier Experience for History Majors: Teaching History in Secondary 2(1-2)
The Mid-tier Experience provides observations and small-group instructional opportunities for students seeking secondary certification in history. Course includes both campus instruction and field work. CR/NC only. Prerequisites: completion of a minimum of 15 hours of history on a signed major; admission to teacher education; junior standing.

HST 301 The Craft of History 3(3-0)
Study of history as a scholarly discipline with emphasis given to historical theory, concepts, methodology, fields, and the history of historical thinking and writing. Specific topics and materials will vary from semester to semester. Prerequisite: 9 hours of history; Recommended: A signed history major or minor.

HST 312 American Military Experience 3(3-0)
The role of American armed forces in peace and war. As social institutions the armed forces reflect political, social, and economic developments of the time.

HST 315 The Vietnam War 3(3-0)
Examines the modern conflicts in Vietnam, the American experience in Indochina from 1945 to 1975, and the war's implications for the United States.

HST 319 The United States since World War II 3(3-0)
An analysis of post World-War II political, economic, and social developments in America.

HST 320 United States Social History to 1865 3(3-0)
Founding and social structure of regional societies; religious and family life; social problems and reform; emphasis on slavery and nineteenth century origins of modern institutions.

HST 321 United States Social History since 1865 3(3-0)
Experience of different classes, age, sex and ethnic groups, and development of new social institutions; stresses the historical roots of current social problems. (Group III-B)

HST 322 Westward Movement in America 3(3-0)
The impact of territorial expansion in the United States upon economics, culture, and politics.

HST 323 History of Native Americans 3(3-0)
The study of native peoples of North America before Columbus, and the interrelationships between the native peoples and European immigrants after Columbus. (Group IV-C)

HST 324 African-American History to 1915 3(3-0)
Examines African-American leadership, social and political life in the New World from slavery to the pre-World War I period. (Group IV-C)

HST 325 African-Americans in Twentieth Century America 3(3-0)
Analyzes change and continuity in African-American leadership, tactics, social and political life in efforts to gain full equality. (Group IV-C)

HST 326 Women in America 3(3-0)
Study of the traditional position of women in American society as documented in historical, literary, and biographical sources. Identical to WST 328. Credit may not be earned in more than one of these courses. (Group I-A)

HST 328 Technology in American History 3(3-0)
Examines the role of technology in the economic, social and cultural history of the United States from the colonial era to the early 21st century. Recommended: At least 12 hours of humanities or social science courses.

HST 330 U.S. Constitutional History 3(3-0)
Historical overview of the critical events and ideologies that shaped the U.S. Constitution and how the courts have interpreted the U.S. Constitution since 1787.
HST 333 History of Michigan 3(3-O)
A study of the development of Michigan, from earliest settlement by Native Americans to the present, focusing on economic, social, and political history.

HST 335 History of the Rock and Roll Era 3(3-O)
The historical origins and evolution of rock music within the context of cultural, social, political, and economic history. Prerequisites: at least sophomore standing, or permission of instructor.

HST 336 Iran and Iraq in History 3(3-O)
An examination of the interrelated histories of Iran and Iraq from the emergence of the first cities and states around 4000 BCE to the present.

HST 340 The High Middle Ages 3(3-O)
An interdisciplinary thematic study of the key facets of the medieval West at its high point: its environment, people, religion and cultural achievements. (Group IV-A)

HST 341 Renaissance and Reformation 3(3-O)
Social, cultural, intellectual, and political history of these two movements in Europe to 1600. (Group I-A)

HST 342 The Culture of Renaissance Italy (Study Abroad) 3(Spec)
Renaissance Italy (4 weeks on site) as it survives in texts, churches and museums of the five major Renaissance cultural centers: Milan, Venice, Florence, Rome and Naples. (Group I-A)

HST 343 History of Paris 3(3-O)
This course addresses key moments in the history of France's capital from an interdisciplinary perspective. Recommended: Any European history and/or French literature/culture courses.

HST 344 Modern Europe, 1815-1918 3(3-O)
The economic, political, social, cultural, and diplomatic developments in Europe from the close of the Napoleonic era to the end of World War I.

HST 347 The French Revolution and Napoleonic Period 3(3-O)
Origin and development of the French Revolution and the role of Napoleon in European history, 1787-1815. (Group III-B)

HST 348 Russia through the Reign of Catherine the Great 3(3-O)
A social, cultural, and political study of Russia from the ninth to the eighteenth century.

HST 349 Russia in the Nineteenth and Twentieth Centuries 3(3-O)
A social, cultural, and political study of Russia in the nineteenth and twentieth centuries.

HST 350 England to 1688 3(3-O)
From Anglo-Saxon times through the reign of the Stuarts.

HST 351 Britain since 1689 3(3-O)
Political, economic, social, and religious history of early modern and modern Britain (England, Scotland, Ireland, and Wales) from the later Stuarts to the present.

HST 353 Germany since 1870 3(3-O)
The German experience since the formation of the Empire, including the processes, problems, and aftereffects of wars, revolutions, constitutions, totalitarianism, and peace.

HST 354 Women in European History 3(3-O)
Surveys and analyzes the traditional and nontraditional roles of women in European history, using new historical research. Identical to WST 354. Credit may not be earned in more than one of these courses.

HST 356 Europe Since 1945 3(3-O)
A study of political, social, economic and cultural change in Europe from the end of the Second World War to the present. Identical to EUR 302. Credit may not be earned in more than one of these courses.

HST 362 Latin American Revolutions: Mexico, Cuba and Central America 3(3-O)
The Circum-Caribbean in the Twentieth Century with primary emphasis on the origin and development of the Mexican, Cuban, and Central American Revolutions.

HST 369 Traditional China 3(3-O)
A study of the political, social, and cultural history of China from earliest times to the nineteenth century.

HST 370 Modern China 3(3-O)
The political and social history of China from the Opium War to the present.

HST 376 East/Central Africa: Issues 3(3-O)
Explores a varying selection of issues concerning historic and contemporary patterns of political and economic organizations, international relations in Ethiopia, Somalia, Somalia, Rwanda, Zaire, Uganda, Kenya.

HST 377 West Africa 3(3-O)
An overview of West African history emphasizing the post-1800 period and especially developments since independence.

HST 378 South Africa 3(3-O)
The conflict between European immigrants and indigenous Africans; the effects of white minority rule, including apartheid; successful African efforts to achieve majority rule.

HST 379 Race, Class and Power: South Africa in the 20th Century 3(3-O)
The course explores the challenges to Afrikaner nationalism and its apartheid policies by traditional liberalism, Black African nationalism, revolutionary Marxism and ethnic mobilization. Identical to HUM 340. Credit may not be earned in more than one of these courses. Recommended: HST 176 or PSC 340 or permission of instructor. (Group IV-A)

HST 382 History of Israel 3(3-O)
Israel and Palestine from ancient times to the present, including background to contemporary Zionism and the conflict with Arab nationalism, identical to REL 382. Credit may not be earned in more than one of these courses.

HST 397 Special Studies 1-6(Spec)
Each offering studies a selected historical topic using readings, discussion, lecture, and research as appropriate.

HST 400 History for Secondary Schools 3(3-O)
Translates the study and methodology of history into teaching practices appropriate for secondary schools, and evaluates recent proposals for improving history instruction. Prerequisites: Admission to teacher education program; 18 hours of history, or current enrollment in 18th hour; Recommended: 2.70 GPA in history major or minor; or permission of instructor.

HST 491 Independent Research 3(Spec)
Research and writing on a topic selected in consultation with an instructor. HST 491 may not be used as a substitute for HST 496. Prerequisites: junior or senior standing with B average in 12 hours of history; permission of instructor and the department chairperson.

HST 496 Research Seminar 3(3-O)
Historical research and writing. This course or an arranged substitute required on all majors.

HST 497 Special Studies 1-6(Spec)
Each offering studies a selected historical topic using readings, discussion, lecture, and research as appropriate. Prerequisite: permission of instructor.

HST 498 Honors Thesis 3(Spec)
The student, with guidance from a thesis advisor, researches and writes an undergraduate thesis. Prior written approval by thesis advisor and chairperson required. Prerequisites: completion of 90 credit hours, including 24 credit hours in History, or permission of instructor.

HST 505 Tudor England 3(3-O)
A study of the political, religious, social and cultural life of England under the Tudors, with special consideration given the reign of Henry VIII. Recommended: One of HST 101, HST 350 or HST 351; or permission of instructor.

HST 511 Colonial British America 3(3-O)
Explores the social, cultural and political development of British America in the seventeenth and eighteenth centuries. Recommended: One of the following: HST 111, HST 323, HST 324, HST 326, HST 351; or permission of the instructor.

HST 512 Era of the American Revolution 3(3-O)
The causes of the War of Independence, the course of the war, the political, social, and cultural change of the Revolutionary period; and the formation of the Federal Constitution. Recommended: HST 110 or HST 111; HST 301; or permission of instructor.

HST 513 Era of the Early Republic, 1789-1825 3(3-O)
An investigation of nation-building, the formation of new institutions, ideologies, decision-making, and personalities during the precarious decades following the American Revolution. Recommended: HST 110 or HST 111; HST 301; or permission of instructor.

HST 514 The Jacksonian Era 3(3-O)
Examines “The Age of the Common Man” for changes in the political and economic structure of America, especially Jacksonians as molders or reflectors of society.

HST 515 Civil War and Reconstruction 3(3-O)
Causes and process of secession, the conduct of the war, and the reconstruction of the South to 1877. Recommended: HST 111 or HST 320; or permission of instructor.

HST 516 Emergence of Modern America, 1877-1920 3(3-O)
Social, political, cultural, and economic developments from the end of Reconstruction through the Progressive era. Recommended: HST 112 or HST 321, or permission of the instructor.

HST 517 U.S. Rise in World Leadership, 1917-1945 3(3-O)
The United States as a world power after World War I, the decade of the 1920s, the depression era, the impact of modern global war.

HST 518 African-Americans and the Legal Process 3(3-O)
Course examines the unique inter-relationship between African-Americans and the American legal system from Colonial times to the present. Recommended: 6 hours from: HST 111 or HST 320 or HST 324(3) and HST 112 or HST 321 or HST 325 (3); or permission of instructor.

HST 523 American Diplomatic History, 1775-1898 3(3-O)
The major issues in American diplomacy, beginning with the birth of the Republic and continuing to the Spanish-American War. Prerequisites: HST 110, HST 111; or permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
HST 524 American Diplomatic History since 1898 3(3-0)
The major issues of United States diplomacy, beginning with the Spanish-American War and continuing to the present.

HST 525 The Industrialization of America 3(3-0)
This course analyzes how industrialization transformed America and how it altered living standards, culture, labor, business, and politics. Recommended: 12 hours of humanities and social science.

HST 532 Michigan History Studies 1-3(Spec)
Individual and group studies in regional and local Michigan history.

HST 535 The Middle East in the Modern Era 3(3-0)
An examination of the history of the Middle East and its relations with Europe and the United States from the 17th century to the present. Prerequisites: HST 237 or admission to the graduate program in history.

HST 537 The Age of Cicero 3(3-0)
Social, political, and intellectual life of the fifth century B.C., primarily on the reading of contemporary documents in translation. Recommended: HST 238 or permission of instructor.

HST 542 The Enlightenment in Europe 3(3-0)
The social, cultural, political and intellectual history of Europe in the eighteenth and nineteenth centuries. Recommended: 6 hours of European history before 1815, or permission of instructor.

HST 548 Russian Thought 3(3-0)
Currents of Russian thought. Emphasis on the nineteenth century.

HST 558 Europe, 1914-1945 3(3-0)
From the origins of the First World War to the end of the Second World War, emphasizing political, cultural, and social and economic change—with stress on the rise of fascism and the failure of democracy. Recommended: One of: HST 102, HST 106, HST 344, or permission of instructor.

HST 562 The Atlantic World in the Age of Empire 3(3-0)
Study of the political, social, cultural, and economic interactions of Europe, Africa, and the Americas from the fifteenth to the nineteenth century. Recommended: One of: HST 111, HST 163, HST 176, HST 324, HST 341, HST 377, HST 511, or permission of instructor.

HST 580 Readings in History 1-6(Spec)
Selected topics studied in special arrangement with an instructor. Prerequisites: junior or senior standing with a B average in 12 hours of history, or graduate status; and permission of the instructor and the department chairperson.

HST 595 Internship in Public History 1-6(Spec)
Students learn to apply historical knowledge through supervised work in a public history agency or institution. Prerequisites: permission of academic advisor and work supervisor.

HST 597 Special Studies 1-6(Spec)
Study of a selected historical topic at a level suitable for advanced undergraduates or graduate students. Recommended: 12 hours of HST, or permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

HST 600 Historiography 3(3-0)

HST 602 Colloquium in U.S. History to 1865 3-6(3-0)

HST 603 Colloquium in U.S. History Since 1865 3-6(3-0)

HST 619 Continuing Registration for Final Research Project 1-1(0)

HST 636 Colloquium in Ancient History 3-6(3-0)

HST 650 Colloquium in European History to 1450 3(3-0)

HST 651 Colloquium in Early Modern European History 3-6(3-0)

HST 652 Colloquium in Modern European History 3-6(3-0)

HST 690 Advanced Readings 1-9(Spec)

HST 695 Special Studies Abroad 3-15(Spec)

HST 697 Special Studies Colloquium 3-6(3-0)

HST 700 Practicum in College Teaching 1-6(Spec)

HST 710 Seminar in Intellectual and Cultural History 3-6(3-0)

HST 711 Seminar in Colonial and Revolutionary America 3-6(3-0)

HST 713 Seminar in the History of Nineteenth Century America 3-6(3-0)

HST 715 Seminar in the Civil War and Reconstruction 3(3-0)

HST 717 Seminar in the History of Twentieth Century America 3-6(3-0)

HST 723 Seminar in American Diplomatic History 3(3-0)

HST 738 Seminar in Ancient History 3-6(3-0)

HST 740 Seminar in Medieval West 3(3-0)

HST 741 Seminar in Early Modern Europe 3(3-0)

HST 742 Seminar in Eighteenth-Century European History 3(3-0)

HST 744 Seminar in Nineteenth-Century European History 3-6(3-0)

HST 758 Seminar in Twentieth-Century European History 3-6(3-0)

HST 763 Seminar in Latin American History 3(3-0)

HST 766 Seminar in Asian History 3(3-0)

HST 791 Graduate Research 3-6(Spec)

HST 795 Seminar Abroad 3-15(Spec)

HST 798 Thesis 1-6(Spec)

HST 890 Doctoral Readings 1-9(Spec)

HST 898 Dissertation 1-36(Spec)

Humanities (HUM)

See the College of Humanities and Social & Behavioral Sciences for more information.

HUM 101 Introduction to the Humanities 3(3-0)
Introduction to the study of selected topics in the humanities from various perspectives (historical, literary, religious, philosophical) in small group discussion (seminar) format. (Group I-A)

HUM 197 Special Studies in Humanities 1-12(Spec)

HUM 197 is primarily for freshmen and sophomores; 397 is primarily for seniors. Credit may not be earned in more than one of these courses. Prerequisites: ART 185; HST 200; or permission of instructor.

HUM 202 Age of Charlemagne 3(3-0)
Artistic, cultural, economic, and political study of the Carolingian period of the Middle Ages. Special emphasis placed on the reign of Charlemagne and the Carolingian Renaissance. Prerequisites: ART 185; HST 200; or HST 340. (Group IV-A)

HUM 303 Law and Society: Great Trials 3(3-0)
Interdisciplinary study of law, from the classical world to modern times, focusing on ethical, jurisprudential, political and legal components of trials of major historical figures. (Group IV-A)

HUM 340 Race, Class and Power: South Africa in the Twentieth Century 3(3-0)
The course explores the challenges of Afrikaner nationalism and its apartheid policies by traditional liberalism, Black African nationalism, revolutionary Marxism and ethnic mobilization. Identical to HST 379. Credit may not be earned in more than one of these courses. Prerequisites: HST 176; PSC 340; or permission of instructor. (Group IV-A)

HUM 370 The Age of Augustus 3(3-0)
Literature, history, art, and culture of the Roman world under its first emperor. (Group IV-A)

HUM 397 Special Studies in Humanities 1-12(Spec)

HUM 197 is primarily for freshmen and sophomores; 397 is primarily for juniors and seniors; 597 is primarily for graduate students. Prerequisite: Permission of instructor.

HUM 430 Self and Identity in American Life 3(3-0)
This interdisciplinary honors seminar explores identity formation in American life. Students explore major theories of identity formation and apply them to different dimensions of identity. Prerequisites: Junior standing or above; any 300-level course in music, English, foreign language, or theater and interpretation; or permission of instructor.

HUM 510 Words and Music: A Theatrical Partnership 4(4-0)
The course considers musical theater as a unique art form, combining music, literature, and stagecraft into a whole greater than the sum of its parts. Prerequisites: Junior standing or above; any 300-level course in music, English, foreign language, or theater and interpretation; or permission of instructor.

HUM 597 Special Studies in Humanities 1-12(Spec)
Prerequisite: permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

HUM 610 Seminar in American Individualism 3(3-0)

HUM 619 Continuing Registration for Final Research Project 1-1(0)

HUM 797 Special Topics in Humanities 1-12(Spec)

HUM 799 Thesis 1-6(Spec)
Industrial and Engineering Technology (IET)

See the Department of Engineering and Technology for more information.

IET 116 General Drafting 3(2-2)
An introduction to the language of industry; includes lettering, sketching, pictorials, multiview projection, dimensioning, auxiliaries, sections, developments, and computer-assisted drafting. Requires no previous experience.

IET 120 Introduction to Engineering Technology 3(3-0)
A survey of the engineering world with a technologist's perspective to provide the skills and knowledge required to pursue an engineering technology career. Recommended: MTH 105 or equivalent.

IET 143 Introduction to Graphic Arts 3(2-2)
Letterpress, gravure, screen printing, bookbinding, and basic principles and procedures of graphic reproduction.

IET 154 Engineering Design Graphics 3(2-2)
Focus on engineering design fundamentals, design processes, and the utilization of graphics within design. Computer-Aided design and product data management techniques are covered.

IET 160 Wood Technology 3(1-4)
Design, development, and construction of wood prototypes, utilizing appropriate wood materials and supplies, involving efficient and safe use of tools, machines, and industrial processes.

IET 170 Metal Technology 3(1-4)
Introduction to the processing of metal materials through casting, fabricating, machining, and basic welding.

IET 180 Power and Energy Technology 3(2-2)
An introductory study of operational and scientific principles related to energy sources used as prime movers. To include gasoline, diesel, rotary, turbine, and jet engines.

IET 182 Automobile Ownership and Maintenance 2(1-2)
Consumer protection course designed to provide fundamental mechanical understanding of the automobile. Lab activities include light repair and essential maintenance procedures.

IET 197 Special Studies 1-6(Spec)
Individual investigation and research to increase one's technical competency.

IET 225 Manufacturing Process Planning 3(3-0)
Study of the responsibilities and activities normally associated with process planning and its relationship to other manufacturing functions. Prerequisites: IET 170 or departmental permission.

IET 227 Principles of Accident Prevention 3(3-0)
A survey of accident prevention including the home, consumer, fire, water, motor vehicle, work, school, and sports.

IET 232 Technology for Children 2(1-2)
Apply creative thinking and problem solving skills to develop learning activities co-related with core curriculum concepts, utilizing materials, tools, and processes in cooperative learning environments.

IET 284 Fluid Power Technology 3(2-2)
A study of hydraulic and pneumatic technologies related to the generation, transmission, and control of fluid power in fluid power systems. Prerequisites: MTH 130 or IET 180; or permission of instructor. Recommended: IET 120 or MTH 105.

IET 291 Applied Electronics 3(2-2)
An introduction to the applications of basic electricity-circuit analysis, linear circuits, and digital circuits. (Not open to IET majors). Prerequisite: math competency.

IET 292 DC Circuit Analysis 3(2-2)
Introductory dc circuit analysis including Ohm's law, Kirchoff's current and voltage laws, mesh and nodal analysis, Thévenin, Norton and maximum power transfer theorems. Prerequisites: MTH 105 or equivalent.

IET 293 AC Circuit Analysis 3(2-2)
Introductory ac circuit analysis including sinusoidal signals, phasors, series and parallel ac networks, mesh and nodal analysis, network theorems, power triangle, power factor, and resonance. Prerequisites: IET 292; MTH 130 or equivalent.

IET 294 Residential Electrical Wiring 3(2-2)
Development of knowledge and skills related to the installation of electric wiring systems in residential and light commercial applications.

IET 297 Special Studies 1-6(Spec)*
Study of methods, materials, tools and equipment for optimizing production output. A survey.

IET 327 Industrial Safety 3(3-0)
A study of the principles and practices of safety management with emphasis on occupational safety standards and loss control.

IET 338 Practicum in Industrial Education: Affiliation 2(0-4)
Expand technical competency and instructional methodology in industrial education by observing and participating with a university faculty member in classroom and laboratory teaching activities.

IET 343 Line Photography and Beginning Offset 3(2-2)
An introduction to photomechanical line processes and fundamental offset procedures. Includes lithographic film applications and offset duplicator operations. Prerequisite: IET 143.

IET 346 Screen Printing 3(2-2)
An overview of principles, methods, and materials used in screen printing. Frames, fabrics, stencil materials, ink, substrates, and printing equipment will be examined. Prerequisites: IET 143.

IET 350 Mechanism Design 3(2-2)
Study of mechanisms with graphical and analytical analysis of displacement, velocity, acceleration, motion, gearing, gear trains, linkages, and cams. Recommended: MTH 106, MTH 108, or MTH 130.

IET 351 Dynamics 3(3-0)
Study and engineering application of relationship between the forces acting on a body, the mass of the body, and the motion of the body. Prerequisites: PHV 145; PHV 175 or PHY 130; PHV 170.

IET 352 Fluid Mechanics 3(3-0)
Study of the basic principles and their application to practical applied problems in the fluid statics, fluid dynamics, flow in pipes, and open channel flow. Prerequisites: PHV 145, PHV 175; or PHY 130, PHY 170.

IET 354 Descriptive Geometry 3(2-1)
Instruction and exercises emphasizing the space relationships of points, lines, planes, and solids. Prerequisite: IET 154 or departmental permission.

IET 356 Thermodynamics 3(3-0)
Study of thermodynamics and basic tools necessary to obtain quantitative relations to common engineering applications involving energy and its conversion, conservation and transfer. Prerequisites: PHV 145, PHV 175; or PHY 130, PHY 170.

IET 357 Residential Architectural Graphics 3(1-4)
Modern house planning resulting in a complete set of plans and specifications. This course is approved for offering in a distance learning format.

IET 358 Light Commercial Architectural Graphics 3(2-2)
Development of the architectural drawing techniques, basic construction methods and materials, details, and planning for light commercial building. Recommended: IET 357.

IET 359 Parametric Design and Modeling 3(2-2)
Development and production of engineering and technical models with computer systems and specialized computer aided software applications; introduction to parametric modeling and design. Prerequisites: IET 154.

IET 360 Advanced Wood Technology 3(2-2)
Design, development and construction of wood prototypes in an advanced area of specialization including: bending, veneering, furniture construction, and use of jigs and fixtures. Prerequisites: IET 116, 160.

IET 361 Construction Technology 3(1-4)
Laboratory and classroom experience designed to develop skills and knowledge relating to noncommercial construction. Field experiences are used when applicable.

IET 362 Residential Finish Technology 3(2-2)
Laboratory and classroom experience designed to develop skills and knowledge relating to residential finish technology and project close-out. Field experiences are used where applicable. Prerequisite: IET 361.

IET 363 Building Code Enforcement 3(3-0)
A comprehensive study of construction building code enforcement. Topics will include the permit process, inspection process, and the legal aspects of building code enforcement. Recommended: IET 361 or permission of instructor. This course is approved for offering in a distance learning format.

IET 365 Plastics Technology 3(2-2)
Introduces basic polymer formulation, properties of plastics materials, methods of molding plastics, and the fabrication and decoration of plastic articles.

IET 367 International Building Codes 3(3-0)
Comprehensive study of the International Building Codes. Topics include International Building, Electrical, Plumbing, Mechanical, and Fire Codes. Recommended: IET 361 or permission of instructor. This course is approved for offering in a distance learning format.

IET 368 International Residential Code 3(3-0)
Comprehensive study of International Residential Code for One and Two-Family Dwellings. Topics include all residence code requirements for building a home according to IRC 2000. Recommended: IET 361 or permission of instructor. This course is approved for offering in a distance learning format.

IET 375 Robotics 3(2-2)
A basic study of robotics including components, programming, and industrial applications. Prerequisite: IET 291 or permission of instructor. Recommended: IET 292.

Descriptions of courses approved for the University Program appear in italic type.
IET 376 Metal Processing 1 3(1-4)
A study of fundamental machine tool and foundry processes. Prerequisite: IET 170 or departmental permission.

IET 377 Numerical Control Programming 3(3-0)
Processes and techniques to produce and use programs for numerically controlled machines including manual and microprocessor methods.

IET 379 Mechanics of Materials 3(3-0)
Introduction to methods of determining the internal stresses and deflections of basic load-carrying members of construction and machine applications. Prerequisites: PHY 145, PHY 175, or PHY 190, PHY 170.

IET 382 Vehicle Control Systems 3(3-2)
A study of principles of operation, diagnosis, and service procedures related to automotive steering, braking, and suspension systems.

IET 385 Automotive Engines 3(1-4)
Design, construction, operation, and service procedures involved in both reciprocating and rotary engines.

IET 388 Automotive Power Transmission 3(2-2)
A study of the various automotive power transmission components including clutches, transmission, drive shafts, and rear axle/differential assemblies.

IET 390 Discrete Device Theory 3(2-2)
A comprehensive study of discrete devices and circuits, including diodes, transistors, single and multistage amplifiers, frequency response, and integrated operational amplifiers. Prerequisite: IET 292.

IET 392 Linear Electronics 3(2-2)
A comprehensive study of operational amplifiers and their applications in the design and analysis of various amplifiers, comparators, oscillators, active filters, and power rectifiers. Prerequisites: IET 293, IET 390.

IET 394 Digital Electronics 3(2-2)
A comprehensive study of digital integrated circuits including pulses, logic, counting, adding, subtracting, multiplying, shifting, decoding, encoding, multiplexing and memory storing. Prerequisite: IET 292.

IET 397 Special Studies 1-6(Spec)
Individual investigation and research to increase one technical competency

IET 400 Senior Seminar 1(1-0)
This seminar format will be used to prepare students to take the Certified Industrial Technologist (CIT) Exam and for graduation. Open to graduating seniors only. CR/NC Only. Prerequisites: Final Semester of Program of Study of ITM Majors

IET 420 International Engineering Technology 1-6(Spec)
Engineering and technology applications, issues, and perspectives in international settings. Travel abroad required. May be repeated once. Any interested students should contact the IET Department. Prerequisites: 12 hours of IET credit, or permission of instructor.

IET 425 Industrial Internship 2-6(Spec)
Supervised work experiences in industry. CR/NC only. Prerequisite: departmental permission.

IET 426 Plant Layout and Materials Handling 3(3-0)
Study of plant layout through the development of overall layout, area detailing, scale models, and drawing of flow diagrams.

IET 427 Product Reliability and Safety 3(3-0)
A study of product reliability and safety factors affecting the design, production, distribution, sales, and use. Prerequisite: 12 hours of IET coursework, or permission of instructor.

IET 428 Manufacturing Quality 3(3-0)
Study of specific quality techniques used by production departments to monitor processes, products, and reliability so quality can be improved. Prerequisites: junior standing; permission of instructor.

IET 429 Occupational Competency 1-3(0-Spec)
Credit by examination for work experience of background in a given technical area for which no transferable credit has been earned. Prerequisites: certified record of work experience; approval of the department chairperson.

IET 433 Problems and Methods of Teaching Industrial Education 3(3-0)
Preparation for teaching students of various ages, abilities, and interests in industrial education programs, encompassing relevant local, state, and national trends and philosophies.

IET 435 Curriculum Development and Facility Planning 3(3-0)
Principles of curriculum development and facility planning. Prerequisite: Open only to seniors.

IET 437 Independent Study 2-5(Spec)
Individual investigation and research to increase one technical competency. Prerequisite: departmental pre-registration.

IET 443 Process Color Procedures 3(2-2)
A review of contacting and halftone procedures relating to the preparation of materials for four color process printing. Prerequisite: IET 143.

IET 446 Advanced Camera Techniques 3(2-2)
An in-depth study of photo mechanical techniques and processes including continuous-tone production; halftone procedure and problem solving for special copy. Prerequisites: IET 143, IET 343.

IET 450 Machine Design Graphics 3(2-2)
Design layouts, calculations, and detail and assembly drawings of machines are made. Prerequisites: IET 359 or department permission.

IET 451 Geometric Dimensioning and Tolerancing 3(3-0)
Complete fundamentals of Geometric Dimensioning and Tolerancing (D&T) concepts as interpreted in the American National Standards Institute document ANSI Y14.5M, Dimensioning and Tolerancing. Prerequisites: one of: IET 116, IET 154, IET 359, or departmental approval.

IET 452 Mechanical Laboratory 3(1-4)
Experiments utilizing a variety of mechanical devices and systems to demonstrate fundamental concepts in mechanics, fluid mechanics, thermodynamics and heat transfer. Prerequisites: IET 351, IET 352, IET 356, IET 379; or permission of instructor.

IET 454 Mechanical Design Problems 3(2-2)
Study of problem solving, applied mechanics, manufacturing methods, and the generation, transformation, or consumption of mechanical energy in the design of a mechanical system. Prerequisite: IET 379.

IET 455 Tool Design 3(2-2)
Covers the process of planning and developing tools, fixtures, and devices for efficient and economical manufacture of a product. Prerequisites: IET 170, IET 359.

IET 457 Computer-Aided Design 3(2-2)
Development and production of computer generated graphical images for solid-based models and basic system assemblies utilizing mass properties and boolean operations. Recommended: IET 359.

IET 458 Surface Modeling 3(2-2)
Development and production of industrial and engineering designs with conceptual and parametric surface modeling tools. Utilization of generative shape design functions to model engineering designs. Prerequisites: IET 359 or permission of instructor.

IET 459 Computer-Aided Design Engineering Analysis 3(2-2)
Development and production of computer-generated graphical images for advanced finite element models, setting of load and thermal constraints, introduction to mechanism analysis. Recommended: IET 458.

IET 461 Construction Estimating and Scheduling 3(3-0)
The techniques of quantity survey for material, labor, and equipment to enable the students to organize data essential for estimating cost and time duration of projects. Prerequisite: IET 381.

IET 465 Plastics Production Processes 3(1-4)
A study of the production of plastic materials and products involving experiences in injection, extrusion, compression, transfer and rotational molding, thermoforming, welding, and fiber-reinforced plastics. Prerequisite: IET 385 or equivalent.

IET 475 Metallurgy and Materials Testing 3(2-2)
The study of physical metallurgy and material testing as they relate to metallic materials.

IET 477 Computer-Assisted Numerical Control Programming 3(3-0)
Processes and techniques to produce and use programs for NC machines with main frame computer assistance in programming. Prerequisite: IET 377.

IET 483 Automotive Electrical Systems 3(2-2)
Fundamentals and principles of servicing and repairing automotive electrical systems including the ignition, starting, charging, lighting, and electrical accessories systems.

IET 485 Fuels and Lubricants 3(2-2)
A study of automotive fuels and fuel systems, engine emissions, and lubricants using and engine dynamometer and various ASTM fuel and lubricant testing procedures. Prerequisites: IET 385.

IET 486 Automotive Testing 3(1-4)
A course designed to promote automotive-related testing and diagnostic procedures. Includes mechanical systems, electronic/electrical, fuel and lubricant ASIM tests. Prerequisites: IET 382, IET 483, IET 485.

IET 487 Vehicle Design and Manufacture 3(2-2)
This course provides an opportunity for students to apply skills of engineering and design to development and design in a nationally competitive setting. Prerequisites: IET 170, 180, 359.

IET 492 Interfacing with Programmable Devices 3(2-2)
Theory and use of 4-through 32-bit microprocessing systems including system design, hardware configuration, 1/0 interfacing, firmware development and programming. Prerequisite: IET 394.

IET 494 Data Acquisition and Control 3(2-2)
A comprehensive study of transducers, signal conditioning, multiplexers, A/D and D/A converters, control devices and speech synthesis/recognition. Prerequisite: IET 392.

IET 497 Special Studies 1-6(Spec)
Individual investigation and research to increase one technical competency

Descriptions of courses approved for the University Program appear in italic type.
IET 499 Industrial Projects Capstone 3(1-4)

The integration of appropriate methods, procedures, and techniques for the analysis of industrial projects and implementation of solutions via a team approach. Prerequisites: senior standing with a declared B.S.E.T. major; or instructor approval.

IET 500 Production Concepts 3(3-0)

Comprehensive review of current factors which influence productivity. Emphasis is placed on the integration of people, methods, machines, materials, and management. Prerequisite: 12 IET credit hours.

IET 501 Application of Industrial Management Principles 3(3-0)

A study of industrial management as a process of coordination that exhibits different patterns depending on the manager’s level in the organization and functional responsibilities. Prerequisite: 12 IET credit hours.

IET 502 Computer Applications in Industry 3(3-0)

General/special purpose, digital/analog computer applications in industry and automation with emphasis on input/output devices and process control. Prerequisite: 12 IET credit hours.

IET 524 Technology and Environment 3(3-0)

A study of the relationship between technology and environment. A systems approach is utilized to examine the optimization of technology within environmental constraints. Prerequisite: 12 IET credit hours.

IET 525 Hazardous Materials Technology 3(3-0)

The course covers hazardous materials and related health, safety, and regulatory issues for persons conducting, supervising, and managing field activities. Prerequisites: IET 327; CHM 120 or CHM 131; junior or senior standing; or permission of instructor.

IET 526 Industrial Ergonomics 3(2-2)

The study of human characteristics, capacities and limitations for the design of productive, safe, and comfortable work spaces, tools, equipment, tasks, and facilities. Prerequisites: ET 327; or senior/graduate standing and permission of instructor.

IET 527 Industrial Safety Management 3(3-0)

A comprehensive study of safety management systems and their implication related to accident cost analysis and to programs which comply with state and federal standards. Prerequisite: IET 327 or permission of instructor.

IET 532 Careers and Technology for Children 3(2-2)

Developing interdisciplinary instructional units, manipulatives, and pedagogy to provide K-12 students with meaningful career awareness, exploration, and preparation experiences utilizing industrial materials, tools, and processes. Prerequisite: junior, senior or graduate status in teacher education; or permission of instructor.

IET 534 Design and Construction of Teaching Aids 2(1-2)

Workshop for planning and constructing three-dimensional teaching aids and devices in various curriculum areas of the elementary and secondary grades. Prerequisite: senior status or permission of instructor.

IET 543 Production Printing Methods 3(2-2)

An overview of electronic prepress methods relating to the Macintosh computer environment. Prerequisites: IET 143, IET 349 or permission of instructor.

IET 551 Coordination in Vocational Education 3(3-0)

Duties, problems, and techniques used in organizing and supervising cooperative education programs, primarily designed to meet state certification requirements. Identical to BIG 451. Credit may not be earned in more than one of these courses. Prerequisite: a signed authorization.

IET 561 Light Frame Construction Workshop 3(0-6)


IET 567 Construction Safety 3(3-0)

A comprehensive study of construction safety standards, practices, and procedures. Recommended: IET 361 or permission of instructor.

IET 576 Industrial Automation 3(2-2)

A study of electro mechanical devices, industrial robotics, programmable logic controllers (PLCs), and automated work cell designs. Prerequisites: IET 375; MTH 132 or MTH 136; CPS 150 or CPS 180; or permission of the instructor.

IET 591 Construction Management 3(3-0)

A comprehensive study of construction management standards, practices, and procedures with emphasis on the legal aspects of the private, federal, and state construction industries. Prerequisites: IET 361, IET 561; or permission of instructor.

IET 594 Research and Development Electronics 3(1-4)

An instructor approved project for individuals who wish to pursue a specialized interest integrating concepts from previous courses. Prerequisite: 12 credit hours in electronics.

IET 597 Special Studies 1-6(Spec)*

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

IET 602 Current Concepts of Industrial Education 2(2-0)

IET 619 Continuing Registration for Final Research Project 1(1-0)

IET 625 Industrial Internship 2-6(Spec)

IET 633 Seminar: Industrial Education 3(3-0)

IET 635 Curriculum Development: Industrial Education 3(3-0)

IET 636 Leadership Internship 2-6(Spec)

IET 694 Problems in Management and Technology 1-6(Spec)

IET 695 Independent Study 2-6(Spec)

IET 697 Special Studies 1-6(Spec)

IET 733 Practicum: Industrial Education/Special Education 3(Spec)

IET 791 Independent Research 2-6(Spec)

IET 798 Thesis 1-6(Spec)

Integrative Public Relations (IPR)

See the Interdisciplinary Integrative Public Relations Major for more information.

IPR 101 Foundations of Integrative Public Relations 1(1-0)

Introduction to the concepts, activities, responsibilities and career directions of public relations from an interdisciplinary perspective.

IPR 490 Independent Study in Integrative Public Relations 1-6(Spec)

Student-initiated study guided by faculty member or faculty committee. Prerequisite: Students enrolling in IPR 490 must be a signed IPR major.

IPR 555 Public Relations Internship 3-6(Spec)

Directed full-time work experience in a professional public relations environment. Prerequisites: IPR 101; BCA 210, BCA 311; COM 264, COM 357; JRN 220, JRN 302, JRN 350, JRN 450; completion of 56 credit hours or permission of instructor; prior written approval of the designated internship director; open only to signed Integrative Public Relations majors.

International Program Studies (IPS)

IPS 197 International Program Studies 1-15(Spec)

Courses taken abroad under auspices of Central Michigan University. Primarily for freshmen and sophomores. Prerequisite: permission of the Director of International Education.

IPS 297 International Program Studies 1-15(Spec)

Courses taken abroad under auspices of Central Michigan University. Primarily for students enrolled for courses abroad designated as pass/fail or credit/no credit only. Prerequisite: permission of the Director of International Education.

IPS 397 International Program Studies 1-36(Spec)

Courses taken abroad under auspices of Central Michigan University. Primarily for juniors and seniors. Prerequisite: permission of the Director of International Education.

IPS 597 International Program Studies 1-36(Spec)

Courses taken abroad under auspices of Central Michigan University. Primarily for seniors and graduate students. Prerequisite: permission of the Director of International Education.

Information Technology (ITC)

See the Department of Computer Science for more information.

ITC 111 Information Technology Programming II 3(3-0)

Programming for Information Technology. User interfaces, databases, component software. Language used is Visual Basic. Prerequisite: CPS 110.

ITC 290 Computer Hardware Concepts, Installation, Configuration, and Support 3(3-0)

Basic computer organization, overview of machine and assembly language, properties of peripheral devices, processes management, physical and virtual memory management techniques, resource allocation and protection. Recommended: ITC 111 or CPS 181.

ITC 291 Computer Software Concepts, Installation, Configuration, and Support 3(3-0)

User view of system resources, file systems and operations, start-up, configuration files, software installation, dependencies, deinstallation, simple scripts, batch files, and account management basics. Recommended: ITC 290.

ITC 320 Web-Based Applications 3(3-0)

An introduction to web-based applications using an object-oriented programming language. This course will cover the creation of applet and application programs. Programming projects will be required. Prerequisite: ITC 290.

ITC 341 Introduction to Databases and Applications 3(3-0)

Database concepts, data models, relational databases, query language SQL, simple database programming. Using commercial database management systems to design and develop databases for various applications. Prerequisites: ITC 111 or CPS 181. Recommended: ITC 291.
ITC 365 Introduction to Data Communications and Computer Networks 3(3-0)
Introduction to data communications and computer networks concepts with hands-on projects and implementations. PC and workstation-based computer networks are designed and implemented. Recommended: ITC 290.

ITC 393 Computer Game Design 3(3-0)
Introduction to design and development of computer video games. Hands-on creation and testing of games. Prerequisites: CPS 110 or 180; CPS 282.

ITC 441 - Database Administration 3(3-0)
Logical and physical schema; database objects; server installation, database creation; user accounts, authorization; backup, recovery; performance measurements and tuning; networking; and client installation and configuration. Prerequisites: ITC 341, ITC 385. Recommended: STA 282 or STA 382.

ITC 465 Network Administration and Security 3(3-0)
Local area network and internet; Unix networks; Windows NT networks; administration and security issues of computer networks; integration of Unix and Windows NT networks. Prerequisites: ITC 385. Recommended: STA 282 or STA 382.

ITC 466 System Administration and Automation 3(3-0)
Study the tools and procedures for administering medium to large networks. Topics will include setting user policies, task automation, and document methodology. Prerequisites: ITC 465 or permission of instructor.

ITC 495 Senior Internship 1-3(Spec)
Supervised work experience in information technology. Up to 3 hours taken may count toward the IT major requirement. CR/NC only. Prerequisite: senior standing in information technology; written permission of department chairperson.

ITC 496 Sp Topic In Info Tech 1-6(Spec)
This course covers topics drawn from areas of latest development in information technology. Repeatable up to 6 credits when content previously studied is not duplicated. Prerequisite: Prerequisites vary depending on the particular offering, or permission of instructor.

ITC 552 Multimedia Systems 3(3-0)
Characteristics and design approaches for multimedia systems. Studies of current and emerging technologies that influence system design. Performance evaluation. Prerequisites: CPS 482 or permission of instructor.

Japanese (JPN)
See the Department of Foreign Languages, Literatures and Cultures for more information.
JPN 101 Elementary Japanese I 4(4-0)
Designed for students who have had no Japanese. Basic language skills. Introduction to the culture of Japan. Students who have completed more than one year of Japanese in secondary school will not receive credit. (Group IV-B)

JPN 102 Elementary Japanese II 4(4-0)
Basic language skills. Continuation of JPN 101. Prerequisite: JPN 101 or equivalent. (Group IV-B)

JPN 110 Study Abroad 1-8(Spec)
Intended for beginning students studying abroad. Prerequisite: permission of department chairperson.

JPN 201 Intermediate Japanese I 4(4-0)
Further development of all language and reading skills; a review of grammar, and exploration of Japanese culture. Prerequisite: JPN 102 or equivalent. (Group IV-B)

JPN 202 Intermediate Japanese II 4(4-0)
Designed to develop fluency in reading Japanese; cultural emphasis. Prerequisite: JPN 201 or equivalent. (Group IV-B)

JPN 210 Study Abroad 1-12(Spec)
Intended for intermediate students studying abroad. Prerequisites: JPN 102; permission of department chairperson.

JPN 310 Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisites: JPN 202 or equivalent; permission of department chairperson.

JPN 410 Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisites: 12 or more hours on 300 level; permission of department chairperson.

Journalism (JRN)
See the Department of Journalism for more information.

JRN 101 Mass Communications in Contemporary Society 3(3-0)
The influence and understanding of mass communications with emphasis on the print media. (Group III-B)

JRN 102 Introduction to Journalism 3(3-0)
An introduction to journalism as a social, cultural, political, technological, and economic force; a professional field; an academic discipline, unit and program.

JRN 197 Special Studies 1-3(Spec)
Appropriate title to be listed when offered.

JRN 202 Writing for the Mass Media 3(3-0)
Gathering, processing and writing information and opinion on current matters using professional standards and formats in news, public relations and advertising. Typing skills important. Prerequisites: ENG 101 (C or better).

JRN 203 Information Gathering for the Mass Media 3(3-0)
Acquiring, comprehending, analyzing, synthesizing, and evaluating information by solving journalistic problems in a variety of cases and from multiple perspectives. Prerequisite or corequisite: JRN 202.

JRN 220 Basic Media Photography 3(3-0)
Camera operation, producing and processing of photographs for media use.

JRN 297 Special Studies 1-6(Spec)
Appropriate title to be listed when offered.

JRN 302 Introduction to Graphics and Visual Communication 3(3-0)
Principles and techniques of publication/advertising graphics and visual communication, including typography and the printing process.

JRN 312 Reporting 3(3-0)
Skills in gathering, evaluating and writing news. Prerequisites: JRN 202; ENG 201.

JRN 315 Editing 3(3-0)
Copy editing, headline writing and design and layout. Prerequisites: JRN 202, JRN 302.

JRN 320 Photo Editing 3(3-0)
Use and preparation of photographs for the print media. Prerequisite: JRN 220.

JRN 340 Introduction to Online Journalism 3(3-0)
Survey of current theories and issues of new media environment, and introduction of online story reporting and production using current web development software. Prerequisites: JRN 102.

JRN 350 Public Relations Principles and Practices 3(3-0)
Concepts and theories of public relations as a management function as practiced by corporations, non-profits and other organizations. Role of the practitioner stressed. This course is approved for offering in a distance learning format.

JRN 360 Advertising Principles 3(3-0)
Organization of today's advertising industry; role of advertising in promotion; examination of types of advertising and media vehicles.

JRN 365 Advertising Media 3(3-0)
Evaluation of media in relationship to marketing objectives. Selection of media space/time and decision-making in development of media schedules. Prerequisite: JRN 560.

JRN 372 International and Cross-cultural Mass Communication 3(3-0)
Analysis of indigenous and international media systems and their relationship to social, economic and political institutions. (Group IV-A)

JRN 380 Racial Diversity: Mass Media’s Role 3(3-0)
Critical, historical examination of African-American, Hispanic, Asian, Native American and gender stereotypes in mass media. Self-portrayals by these groups using mass media. (Group IV-C)

JRN 397 Special Studies 1-6(Spec)
Appropriate title to be listed when offered.

JRN 404 Law of Mass Communication 3(3-0)
Principles and case studies. Prerequisites: JRN 101; junior standing.

JRN 409 Independent Study 1-3(Spec)
Individual study under faculty direction. Prerequisite: senior standing or permission of instructor.

JRN 417 Sports Reporting 3(3-0)
Critical examination and reporting of sports events. Prerequisites: JRN 315 or permission of instructor.

JRN 420 Photography Studio Techniques 3(3-0)
Use of camera in a controlled environment, studio lighting and basic studio operation. Prerequisite: JRN 220.

JRN 421 Color News Photography 3(3-0)
Use and production of color transparencies, prints; basic considerations of media use. Prerequisites: JRN 220, JRN 320; or permission of instructor.

JRN 422 The Photographic Process 3(3-0)
Advanced camera operation; light, lighting, optics, and the chemistry of the silver halide process. Prerequisites: JRN 220 or permission of instructor.

JRN 423 Online Visual Storytelling 3(3-0)
Online storytelling for the photojournalist. Multimedia production combining still photography, audio, and video with the intended purpose of publishing on the Web. Prerequisites: JRN 220; 56 credits completed.

JRN 430 Magazine and Feature Writing 3(3-0)
Experience in writing and marketing newspaper features and magazine articles. Submission of manuscripts for publication is required of each student in the course. Prerequisite: JRN 202.
LMT 349

JRN 440 Advanced Online Journalism 3(3-0)
Advanced techniques of producing online news stories using advanced web development software. Prerequisites: JRN 340.

JRN 441 Computer Assisted Reporting 3(3-0)
Computer-assisted reporting, which combines secondary data gathering, online/surveying, basic statistics, and SPSS data analyses. Prerequisites: JRN 202, 203

JRN 450 Public Relations Writing 3(3-0)
Creating and editing written materials for a variety of public relations purposes and a variety of media. Prerequisites: JRN 202, JRN 350; or permission of instructor.

JRN 465 Advertising Copy and Design 3(3-0)
Techniques of developing creative strategies, writing advertising copy and preparing layouts for the print media, planning and executing written and oral presentations. Prerequisites: JRN 302, JRN 360.

JRN 466 Advertising Campaigns 3(3-0)

JRN 497 Special Studies 1-6(Spec)
Appropriate title to be listed when offered.

JRN 500 Current Issues in Mass Communication 3(3-0)
Examination of the role of mass communication in society through the exploration of issues, ethics, trends and decision-making processes. Prerequisite: senior standing or permission of instructor.

JRN 516 Public Affairs Reporting 3(3-0)
Coverage of government and other public issues. Prerequisite: JRN 312.

JRN 519 News Editorial Internship 1-4(Spec)
Experience at news organizations under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

JRN 520 Independent Study in Photography 3(3-0)
Advanced experience and individual instruction in photography. Prerequisites: JRN 220, JRN 320; or permission of instructor.

JRN 521 Seminar in News Photography 3(3-0)
Field experience of the photograph as a means of communicating information. Ideas and opinions.

JRN 529 - Photojournalism Internship 1-4(Spec)
Photojournalism experience under professional and faculty supervision. May be applied to journalism major or minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

JRN 551 Case Studies in Public Relations 3(3-0)
Examination of historic and contemporary public relations problems and programs with emphasis on research, planning and problem-solving skills in public relations practices. Prerequisites: JRN 350 or permission of instructor.

JRN 556 Public Relations Seminar 3(3-0)
Emphasis on interaction of public relations with society, with individual case studies. Prerequisites: JRN 350 or permission of instructor.

JRN 559 - Public Relations Internship 1-4(Spec)
Experience in public relations under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

JRN 560 - Advertising Internship 1-4(Spec)
Experience in advertising under professional and faculty supervision. May be applied toward journalism major or minor only with permission of faculty advisor. Prerequisites: junior standing and permission of instructor.

JRN 597 Special Studies 1-6(Spec)
Appropriate title to be listed when offered.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

JRN 670 Public Relations Management 3(3-0)

Liberal Arts (LAR)

See the College of Humanities and Social & Behavioral Sciences for more information.

LAR 080 Basic ESL for International Students 1-12(SPEC)
For non-native speakers of English, this course includes all basic skill areas of English as a Second Language: grammar, writing, reading, and conversation, but focuses primarily on speaking/listening. CR/NC only.

LAR 145 - Racism and Diversity in America 3(3-0)
Interdisciplinary course examines historical and economic causes of racism and ways of achieving a just society. (Group IV-C)

LAR 197 Special Studies in Liberal Arts 1-12(Spec)
Primarily for freshmen or sophomores. Prerequisite: permission of instructor.

LAR 397 Special Studies in Liberal Arts 1-12(Spec)
Primarily for juniors and seniors. Prerequisite: permission of instructor.

LAR 597 Special Studies in Liberal Arts 1-12(Spec)
Primarily for graduate students. Prerequisite: permission of instructor.

Latin (LAT)

See the Department of Foreign Languages, Literatures and Cultures for more information.

LAT 101 Elementary Latin I 4(4-0)
Introduction to Latin through the study of grammar, vocabulary, and readings about Roman history and everyday life or from Latin literature. (Group IV-B)

LAT 102 Elementary Latin II 4(4-0)
Continuation of LAT 101. Prerequisite: LAT 101 or permission of instructor.

LAT 201 Intermediate Latin I 4(4-0)
Translating typical classical Latin prose. Prerequisite: LAT 102 or permission of instructor.

LAT 202 Intermediate Latin II 4(4-0)
Continuation of LAT 201. Prerequisite: LAT 201 or permission of instructor.

Leadership Studies (LDR)

See the Interdisciplinary Leadership Minor or the Leadership Institute section (see Index for page number) for more information.

LDR 100 Introduction to Leadership Education and Development 1(1-0)
Designed to provide students with the foundation to develop and enhance their leadership potential and expose them to opportunities in the university environment in order for them to fulfill their scholarship protocol. Prerequisite: only open to Leader Advancement Scholarship (LAS) recipients.

LDR 200 Introduction to Leadership 3(2-2)
Introduction to theoretical, philosophical, and conceptual foundations of leadership. Emphasis on styles and approaches of leadership related to the humanities, natural sciences, and social sciences.

LDR 402 Applications of Leadership 3(Spec)
Designed to apply a variety of leadership theories and practices within a supervised organizational setting through an internship involving work, volunteer/community service, or project management. Prerequisites: LDR 200; COM 461; PHL 118 OR PHL 218 OR PHL 318; Junior or Senior standing; a signed Leadership minor; prior written approval by the Leadership Minor advisor.

Library (LIB)

See the College of Education and Human Services for more information.

LIB 197 Introduction to Library and Information Research 1(1-0)
Practical skills needed to conduct library and information research. Includes locating information in electronic and print sources, defining researchable topics, as well as evaluating, citing, and using information. Not open to students with LMT 530.

LIB 397 Special Topics in Library and Information Research 1-3(Spec)
Students will learn in-depth library and information research skills within specialized or discipline-related subject areas. Topics vary by semester. Prerequisites: at least Junior standing or permission of instructor.

Library, Media, and Technology (LMT)

See the Department of Teacher Education and Professional Development for more information.

LMT 502 Cataloging and Classification 3(3-0)

LMT 530 Reference Materials 3(3-0)
Selection, evaluation, and use of basic reference sources and fundamental concepts and techniques of reference services. The school library media center reference collection is emphasized.

LMT 550 Workshop in Librarianship 1-6(Spec)
Group study and analysis of specific problems in librarianship. Lectures, discussions, research, consultants, and other procedures also are utilized. May be taken more than once. Prerequisite: permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
LMT 580 Literature for Young Adults 3(3-0)
Literature and library materials of secondary school students. Explorations of
genres related to reading interests and needs of adolescents and young
adults. Identical to ENG 580. Credit may not be earned in more than one of
these courses. Junior, senior, or graduate status.

LMT 590 Media for Children 3(3-0)
Surveys curricular and recreational print and non-print materials for el-
ementary school children. Identifies developmental needs, interests and
abilities as well as methods of promoting the use of a wide variety of media
materials for children and teachers.
For 600 and 700 level course descriptions, consult the current College of
Graduate Studies Bulletin.

LMT 602 Special Problems in Library Media 2(2-0)
LMT 603 Evaluation and Acquisition of Instructional Materials 3(3-0)
LMT 612 Instructional Material Centers and Systems 3(3-0)
LMT 625 Library Media Skill Instruction 3(3-0)
LMT 630 Educational Applications of Microcomputers 3(3-0)
LMT 635 Seminar in Current Trends in School Media Services 2(2-0)
LMT 650 Information Technology in School Media Centers 3(3-0)
LMT 699 Internship in Library Media 1-6(SPEC)

Marine Science (MAR)
See the Department of Biology for more information. Summer courses
taken with affiliation agreement with the University of Southern Mississippi’s
Gulf Coast Research Laboratory in Ocean Springs, MS.
MAR 301 Marine Science I: Marine Biology 5(Spec)
An introduction to marine biology with emphasis on local fauna and flora.
Prerequisites: general zoology; general botany.
MAR 503 Marine Invertebrate Zoology 6(Spec)
Structure, classification, phylogenetic relationships, larval development and
physiology of marine invertebrates. Prerequisites: BIO 101, BIO 203, BIO
206, BIO 218.
MAR 590 Special Problems in Marine Science 1-6(SPEC)
Prerequisites: permission of instructor.

Master of Business Administration
(MBA)
See the College of Business Administration for more information.

MBA 500 Spreadsheet Applications in Business 1(1-0)
Application of spreadsheet software tools to the solution of common busi-
ness problems including budgeting, forecasting, and optimization for prepar-
ing information to support management decision-making. Course may not be
included on any graduate degree program. Prerequisites: computer literacy
as demonstrated by BIS 104, CPS 100 or equivalent and prior knowledge
of spreadsheet software; admission to the MBA program OR both graduate
status and permission of the MBA director.

MBA 501 Presentation Graphics Applications in Business 1(1-0)
Application of presentation graphics software tools in preparing and de-
ivering professional management briefings that provide information which
supports the solution of common business problems. Course may not be
included on any graduate degree program. Prerequisites: computer literacy
as demonstrated by BIS 104, CPS 100 or equivalent and prior knowledge
of presentation graphics software; admission to the MBA program OR both
graduate status; permission of the MBA director.

MBA 502 Database Applications in Business 1(1-0)
Application of a database management program to the solution of common
business problems including sales and inventory management for preparing
information to support decision making. Course may not be included on any
graduate degree program. Prerequisites: computer literacy as demonstrated
by BIS 104, CPS 100 or equivalent and prior knowledge of database man-
agement software; admission to the MBA program OR both graduate status
and permission of the MBA director.

MBA 503 Professional Business Communications 2(2-0)
Developing professional business communications skills within a team
environment. Emphasis on both written and oral communications utilizing
current technologies. Prerequisites: admission to the MBA program, or per-
mission the MBA director.

MBA 504 Using Financial Accounting Information 2(2-0)
Introduces use of financial accounting income statements, balance sheets,
and statements of cash flow in managerial planning, control, and evaluation.
Prerequisites: admission to the MBA program, or permission of the MBA
director.

MBA 505 The Economic Environment of Business 2(2-0)
Provides the economic tools necessary for graduate study in business:
demand and supply, elasticity, costs and production, competitive and monop-
opolistic markets, macroeconomics, and international trade. Not open to eco-
nomics graduate students. Prerequisites: admission to the MBA program, or
permission of the MBA director.

MBA 506 Legal Environment of Business 2(2-0)
Basic concepts concerning the interrelationships of business and its exter-
nal environments. Managerial participation in and response to public policy
issues and their resolutions. Prerequisites: admission to the MBA program, or
permission of the MBA director.

MBA 507 Introduction to Marketing Management 2(2-0)
An introduction to the marketing management process including the mar-
keting environment, buyer behavior, marketing analysis, segmentation, mar-
keting strategy, the marketing mix, and social/ethical issues. Prerequisites:
permission of the MBA director.

MBA 508 Management and Organization 2(2-0)
Introduction to the internal structure, processes, and control of organiza-
tions. Prerequisites: admission to the MBA program, or permission of the
MBA director.

MBA 509 Production/Operations Management 2(2-0)
Concepts and applications of production and operations management in
business and industry. Prerequisites: admission to the MBA program, or
permission of the MBA director.

MBA 510 Financial Management and Analysis 2(2-0)
An introduction to basic finance principles and tools including the time
value of money, risk and return, capital budgeting and the interpretation of
financial statements. Prerequisites: admission to the MBA program, or
permission of the MBA director.

MBA 511 Statistics for Managerial Decisions 2(2-0)
An introduction to descriptive and inferential statistics in a business deci-
sion context. Applications of various t-tests, ANOVA, multiple regression,
and cross-tabulation are emphasized. Prerequisites: admission to the MBA
program, or graduate status and permission of the MBA director.
For 600 and 700 level course descriptions, consult the current College of
Graduate Studies Bulletin.

MBA 599 Internship in Business 1-6(SPEC)
Prerequisites: permission of instructor.

MBA 609 Information Systems Management 2(2-0)
MBA 618 Continuing Registration for Final Research Project 1(1-0)
MBA 619 Accounting Information for Managers 2(2-0)
MBA 629 Managing Behavioral Change 2(2-0)
MBA 639 Quantitative Applications for Managers 2(2-0)
MBA 649 Marketing Management 2(2-0)
MBA 659 Managing in a Global Economy 2(2-0)
MBA 669 Financial Decision-Making 2(2-0)
MBA 679 Economic Analysis for Managers 2(2-0)
MBA 689 Strategic Management 2(2-0)
MBA 691 Organization Change Management 2(2-0)
MBA 692 Management Consulting: Practices 2(2-0)
MBA 693 Management Consulting: Diagnosis 2(2-0)
MBA 694 Management Consulting: Implementation 2(2-0)
MBA 697 Special Topics 1-6(SPEC)
MBA 699 The MBA Project 4(4-0)

Meteorology (MET)
See the Department of Geography for more information.

MET 201 Weather 4(4-0)
Nature of atmospheric processes, weather, and climate: why and how they
vary over the face of the earth. (Group II-A)

MET 240 Meteorology 3(2-2)
Normally the first course for students majoring in Meteorology. Quantitative
treatment of the atmosphere. Credit cannot be earned in both MET 201 and
240. Group II-B. Recommended: Two years of high school algebra or MTH
107.

MET 301 Climatology and Climatic Change 3(3-0)
A study of major climate types, their controls, distribution patterns and
significance. Examination of the causes and implications of climatic change.
Prerequisites: MET 201 or MET 240.

MET 310 Atmospheric Radiation and Thermodynamics 3(2-2)
Properties of radiation and radiative transfer in the atmosphere. Thermo-
dynamic properties of dry and moist air. Atmospheric stability. Theory and
applications of thermodynamic diagrams. Prerequisites: MET 240, MTH 133,
Co-requisite: PHY 145

MET 312 Meteorological Radar and Satellites 3(3-0)
Principles of remote sensing of the atmosphere using meteorological radar
and satellites. Prerequisite: MET 310

Descriptions of courses approved for the University Program appear in italic type.
Management (MGT)

See the Department of Management for more information.

MGT 210 Effective Supervision: Principles and Practices 3(3-0)
Prepares students to be effective first-line supervisors in a variety of organizational settings by using sound principles and practices applied to basic managerial processes. Identical to HSA 210. Credit may not be earned in more than one of these courses.

MGT 258 Effective Management of Human Resources in Organizations 3(3-0)
Applying the underlying principles of employee behavior to the effective design, use, and management of human resource systems in organizations. Prerequisites: Tier 2 Admission to Professional Business Studies.

MGT 303 Integrated Supply Chain Management 3(3-0)
Application of concepts and tools in purchasing, production and distribution of goods and services along an integrated supply chain in organizations. Identical to MKT 303. Credit cannot be earned in more than one of these courses. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MGT 258. Co-requisites: BUS 301, FIN 302, MKT 304.

MGT 310 Small Business Management 3(3-0)
The course covers concepts, processes, and techniques for starting and managing a small business. It focuses on management processes that are unique to small businesses. Will not count for credit on College of Business Administration majors. Prerequisites: 56 semester hours completed.

MGT 312 Introduction to Management 3(3-0)
Introduction to the concepts, techniques, and processes of management as they pertain to business and other organizations. This course is approved for offering in a distance learning format. Prerequisite: 56 semester hours completed.

MGT 320 Human Resource Management 3(3-0)
Examines process for providing and maintaining productive human resources in an organization. Includes recruitment, selection, training, performance appraisal, compensation, labor relations, and health and safety. Prerequisites: MGT 258 or MGT 312; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 333 Purchasing Management 3(3-0)
Introduction to concepts, models, and techniques in Purchasing Management, with special emphases on vendor management, materials management, and purchasing strategy. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. This course is approved for offering in a distance learning format.

MGT 335 Introduction to Management Science 3(3-0)
Basic concepts and applications of analytic methods in management decisions. Prerequisites: MTH 116 or MTH 130; MTH 216 or MTH 132; STA 282 or STA 382; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. This course is approved for offering in a distance learning format.

MGT 340 Production/Operations Management 3(3-0)
An introduction to production and operations management concepts, tools and techniques as applied in service and manufacturing organizations. Prerequisites: 56 semester hours completed. This course is approved for offering in a distance learning format.

MGT 348 Dynamics of Organizational Behavior 3(3-0)
Integrative theory of organizational behavior. Human motivation influenced by leadership, the organization itself, and its social environment. Prerequisites: MGT 258 or MGT 312; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 355 Communications: Managerial Applications 3(3-0)
An applications-oriented class exposing students to many of the common communication-related situations they will soon face as managers. Prerequisites: MGT 258 or MGT 312; 348 is recommended; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 365 International Business 3(3-0)
Environment and operations of multinational business. Public policy issues and their influence on international management. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 380 Special Topics 3-6(Spec)
Various special topics in atmospheric science. Repeatable up to 6 credits when course previously studied is not duplicated. Prerequisite: Permission of Instructor.

MGT 401 Internship 1-6(Spec)
Internship in the field of atmospheric science. Prerequisites: MGT 335 and permission of instructor.

MGT 497 Independent Study 1-6(Spec)
Research in meteorology with topics agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisites: Three or more courses in the MET program and permission of instructor.

MET 320 Cloud Physics 3(3-0)
Microphysical processes in warm and cold clouds. Formation and evolution of precipitation in convective and stratiform clouds. Prerequisites: MET 310, PHY 145.

MET 330 Dynamic Meteorology I 3(3-0)
Application of Newton's laws of motion to various scales of atmospheric phenomena. Vorticity, divergence and vertical motion. Prerequisites: MTH 233, PHY 145, MET 310.

MET 335 Dynamic Meteorology II 3(3-0)
Quasi-geostrophic theory, potential vorticity, and their application in weather prediction and diagnosis. Atmospheric waves and baroclinic instability theory. Prerequisite: MET 330.

MET 340 Synoptic Meteorology I 3(2-2)
Analysis and interpretation of surface and upper-air charts with specific focus on quasi-geostrophic concepts. Cyclogenesis and frontogenesis. Prerequisite or co-requisite: MET 330.

MET 345 Synoptic Meteorology II 3(2-2)
Advanced techniques in weather map analysis. Structure and evolution of extratropical cyclones. Prerequisites: MET 340; pre or co-requisite: MET 335.

MET 375 Special Studies in Meteorology 1-6(Spec)
Various special topics in atmospheric science. Repeatable up to 6 credits when course previously studied is not duplicated. Prerequisite: Permission of Instructor.

MET 450 Mesoscale Meteorology 3(3-0)
Structure and dynamics of atmospheric phenomena on the mesoscale including thunderstorms and mesoscale convective systems. Prerequisite: MET 335.

MET 480 Numerical Weather Prediction 3(2-2)
Numerical differing techniques, stability analysis, structure and operation of one to three dimensional weather models, physical parameterizations and their implications. Prerequisites: MET 450, CPS 150 or 180.

MET 491 Internship 1-6(Spec)
Internship in the field of atmospheric science. Prerequisites: MET 335 and permission of instructor.

MET 497 Independent Study 1-6(Spec)
Research in meteorology with topics agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisites: Three or more courses in the MET program and permission of instructor.

MET 323 Cloud Physics 3(3-0)
Microphysical processes in warm and cold clouds. Formation and evolution of precipitation in convective and stratiform clouds. Prerequisites: MET 310, PHY 145.

Descriptions of courses approved for the University Program appear in italic type.
MGT 446 Industrial Relations 3(3-0)
Relations between organized labor and management analyzed in the light of contemporary conditions. Recommend MGT 258 or MGT 312 prior to enrollment. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 447 Personnel Selection and Evaluation 3(3-0)
Study of personnel selection policies and practices and employee evaluation approaches and techniques, including legal issues and concerns, as they are applied in complex organizations. Prerequisites: MGT 320; STA 282; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

MGT 457 Seminar in International Business 3(3-0)
A case study course for analysis and integration of international business functions in order to develop a cross-cultural perspective in dealing with global challenges. Prerequisites: completion of MGT 365; 86 semester hours completed and admission to the Professional Business Studies or listed on signed major or minor. Recommended: ECO 576, FIN 573, and MKT 565.

MGT 484 Human Resource Training and Development 3(3-0)
This course examines theories, concepts, and process of human resource training and development in modern organizations to meet current and future needs. Prerequisites: MGT 258 or MGT 312; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MGT 320.

MGT 490 Internship in Management 1-6(Spec)
Full or part time job learning experience for one or more semesters in industry, government or business organizations. Prerequisites: permission of instructor and of department chairperson; 56 semester hours completed; admission to Professional Business Studies or listed on signed major in the Department of Management. This course is approved for offering in a distance learning format.

MGT 491 Independent Studies 1-6(Spec)
Directed reading or research on an approved topic. Open to seniors in good academic standing. Prerequisites: prior permission of instructor and department chairperson; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 492 Practicum in Small Business 3(Spec)
Provides the student an opportunity to analyze the accounting, finance, marketing, management, and production systems of an ongoing small business. Identical to ACC/FIN/MKT/BIS 492. Credit may not be earned in more than one of these courses. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 495 Global Management Strategy 3(3-0)
An integrative, cross-functional capstone course focusing on the process of strategic planning and management from the general management perspective, and on the domestic, multinational, and global dimensions. Primarily a case course. Prerequisites: 86 semester hours completed; completion of 300-level common body knowledge requirements in business; admission to Professional Business Studies. Graduating seniors only. This course is approved for offering in a distance learning format.

MGT 499 Integrated Capstone-Strategic Management 3(3-0)
An integrative capstone course applying and analyzing financial, marketing, supply chain, and business functions within a global strategic management perspective. Prerequisites: 86 semester hours completed; BUS 300, 301; MGT/MKT 303; FIN 302; MKT 304; Tier 2 Admission to Professional Business Studies. Preference given to graduating seniors.

MGT 500 Comparative Labor Relations Systems 3(3-0)
Comparative analysis of the history, structure, institutional arrangements, and philosophy of the labor relations systems of several countries in advanced stages of industrialization. Prerequisites: MGT 320 or permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 516 Management and Women 3(3-0)
Enables both male and female students to understand the opportunities, challenges, and problems confronting women in their pursuit of careers in management, and to manage more effectively. Prerequisites: MGT 312 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 520 Management in Health Care Facilities 3(3-0)
Management problems and practices in health care facilities. Prerequisites: MGT 312; MSA 650 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 533 Purchasing Strategy 3(3-0)
Strategic analysis and planning of purchasing and supplier-base development for both domestic and global competitive environments. Prerequisites: MGT 333 or equivalent and admission to Professional Business Studies or listed on signed major or minor or permission of the MBA Director.

MGT 542 Inventory Theory and Materials Management 3(3-0)
The study of the concepts, models and systems for material management and production planning. Prerequisites: MGT 303/MKT 303 or MGT 340; STA 282 or an equivalent statistics course; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or graduate standing.

MGT 543 Management and Control of Quality 3(3-0)
In-depth study of management and statistical techniques employed in the analysis, design and implementation of quality assurance and control systems in manufacturing and service organizations. Prerequisites: MGT 303/MKT 303 or MGT 340; STA 282 or STA 382; 86 semester hours completed; admission to Professional Business Studies or listed on major or minor or graduate standing.

MGT 545 Operations Strategy 3(3-0)
The treatment of strategic planning and competitive issues in operations management in a domestic and global environment. Prerequisites: MGT 303/MKT 303 or MGT 340; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or graduate standing.

MKT 597 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcripts. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

MKT 600 Principles of Management Science/Management Information Systems 3(3-0)

MKT 633 Human Resource Management 2(2-0)

MKT 635 Employee Compensation Practice and Process 2(2-0)

MKT 636 Seminar in Labor Relations 2(2-0)

MKT 637 Personnel Selection and Evaluation 2(2-0)

MKT 643 Personnel Management 3(3-0)

MKT 645 Personnel Compensation Practice and Process 3(3-0)

MKT 646 Labor Relations Issues 3(3-0)

MKT 647 Employee Selection and Evaluation 3(3-0)

MKT 649 Seminar in Organizational Development 3(3-0)

MKT 657 International Management 2(2-0)

MKT 667 International Business 3(3-0)

MKT 791 Independent Studies 1-6(Spec)

MKT 797 Special Topics 3-6(Spec)

MKT 798 Thesis 1-6(Spec)

Marketing (MKT)
See the Department of Marketing and Hospitality Services Administration for more information.

MKT 151 Marketing and Society 3(3-0)
An overview of the environment, concepts and current trends that shape the world of marketing. Attention is paid to the impact of marketing on society. This course will not be accepted for credit for departmental or College of Business Administration major or minor.

MKT 220 Introduction to Retail Merchandising 3(3-0)
An overview of merchandising systems and procedures as they relate to organizational structure, product planning, and inventory control.

MKT 221 Marketing Strategies for Entrepreneurs 3(3-0)
Marketing for small business; identification of a product and/or service potential; advertising plans, marketing strategy, store location, purchasing procedures and inventory control. Identical to ENT 221. Credit may not be earned in more than one of these courses.

MKT 297 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topics will be listed on students’ transcripts.

MKT 300 Introduction to Marketing 3(3-0)
A basic introduction to the marketing environment, the marketing mix; marketing management and the place of marketing in world society. This course is approved for offering in a distance learning format. Prerequisite: 56 semester hours completed.

MKT 303 Integrated Supply Chain Management 3(3-0)
Application of concepts and tools in purchasing, production and distribution of goods and services along an integrated supply chain in organizations. Identical to GTR 303. Credit cannot be earned in more than one of these courses.

MKT 304 Integrated Marketing Management 3(3-0)
An introduction to marketing and how it provides customer and market information to the organization so strategic and tactical decisions are customer-focused and market-driven. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BUS 255, MKT 298. Co-requisites: BUS 301, MGT/MKT 303, FIN 302.

MKT 305 Buyer Behavior 3(3-0)
Characteristics of consumers affecting the decision process in buying and the marketing implications. Prerequisites: MKT 300 or MKT 304, 56 semester hours completed, and admission to Professional Business Studies or listed on signed major or minor.

Descriptions of courses approved for the University Program appear in italic type.
MKT 310 Marketing Communications 3(3-0)
An overview of advertising, personal selling and sales promotion, and other techniques that an organization would use to communicate with its target markets. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. This course is approved for offering in a distance learning format.

MKT 315 Advertising Media 3(3-0)
Evaluation of media in relationship to marketing objectives. Selection of media space/time and decision-making in development of media schedules. Prerequisites: 56 semester hours completed; MKT 310 or JRN 360 or approval of instructor; admission to Professional Business Studies or listed on signed major or minor.

MKT 320 Retail Management 3(3-0)
Functions of a retail establishment are examined. Significant developments taking place in the major environments of retailers—social, economic, technological, and legal. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor; or with approval from the Office of Undergraduate Business Studies.

MKT 325 Merchandising Management 3(3-0)
Current problems in merchandising which include technological aspects, inventory valuation and reporting procedures, stock planning, and product mix considerations. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor; Recommended: MKT 320 prerequisite or co-requisite.

MKT 330 Marketing Channels 3(3-0)
Institutions, physical flows, behavioral and economic relationships comprising the channel systems in the marketing environment. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 340 Personal Selling 3(3-0)
Analysis of the field of personal selling as a vital element of the promotional efforts of the firm. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor; or with approval from the Office of Undergraduate Business Studies.

MKT 341 Services Marketing 3(3-0)
Planning and implementation of marketing strategy and application of the marketing mix to services including hospitality, banking and health services. Identical to HSA 341. Credit may not be earned in more than one of these courses. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 350 Marketing Analysis 3(3-0)
Analysis of marketing data: marketing research, statistics, marketing cost/revenue analysis and sales and market forecasting. Prerequisites: MKT 300 or MKT 304; STA 282: ACC 202 or ACC 255; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 360 Electronic Commerce and Marketing Strategy 3(3-0)
Basic concepts and tools for understanding and exploring market opportunities and marketing strategies associated with global electronic commerce. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 390 Field Studies 3(3-0)
Activities which may include industrial visitations and work study in conference with supervision of cooperating organization, professor, and student. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 397 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student's transcript. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 399 Marketing Strategies for Small Business 3(3-0)
Marketing for a small business: identification of a product and/or service potential; advertising plans, marketing strategy, store location, purchasing procedures and inventory control. Will not count on College of Business Administration majors. Prerequisites: 56 semester hours completed.

MKT 410 Advertising Management 3(3-0)
Provides an understanding and evaluation of the advertising function within the modern business environment. Management decision-making is stressed in advertising as a total communication tool. Prerequisites: MKT 300 or MKT 304, MKT 310 or JRN 360; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 415 Promotion and Direct Marketing 3(3-0)
Analytical study of the use of promotional tools in marketing strategy. Direct marketing principles and practices, planning, implementation and control issues are emphasized. Prerequisites: MKT 300 or MKT 304, MKT 310; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 420 Advanced Selling and Negotiation 3(3-0)
Methods for building the consultative selling skills necessary to form relationships with customers, negotiate successfully and develop and deliver effective sales presentations. Prerequisites: MKT 300 or MKT 304; MKT 340; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

MKT 422 Cooperative/Internship in Retailing 3-6(Spec)
Full time work experience under the supervision of the department and participating employer. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MKT 320.

MKT 425 Retail Strategy 3(3-0)
Development of strategic methods for addressing retail problems. Problem solving orientation within the retail organizational setting. Prerequisites: MKT 320; or permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MKT 422.

MKT 431 Logistics Operations 3(3-0)
Operational issues, management techniques and technology applied to distribution operations. Focus is on the integration of logistics operations of all firms within the supply chain. Prerequisites: MKT 330; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Corequisite: MGT 340.

MKT 435 Transportation 3(3-0)
The role of transportation systems in an economy, transport system pricing, and the management of transportation operations. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 440 Sales Management 3(3-0)
The organization, planning, operation and control of a field sales force from the perspective of the sales manager. Prerequisites: MKT 300 or MKT 304; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 445 Business Marketing 3(3-0)
Development of principles and establishment of a framework within which managerial problems involved in marketing industrial goods can be solved. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MKT 300 or MKT 304.

MKT 450 Marketing Research 3(3-0)
Methodology used in gathering, recording, and analyzing marketing data to aid executives in making marketing decisions. Prerequisites: MKT 300 or MKT 304; STA 282 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: BUS 300.

MKT 460 Organizational Selling 3(3-0)
Methodologies that enable one to work with the leadership of customer organizations in order to develop solutions that enhance and sustain their competitive advantage. Prerequisites: MKT 300 or MKT 304; MKT 340; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 465 Supply Chain Management 3(3-0)
Integration of competencies in logistics related areas. Logistical policy establishment and decision-making for solving complex logistical problems that focus on global and intercompany logistics systems. Prerequisites: MKT 431 or MKT 432; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 490 Internship in Marketing/Logistics 3-6(Spec)
A full time work experience occurring within a marketing or logistics organization. Detailed written report and assigned readings required. Prerequisites: Permission of instructor and department chairperson; 56 semester hours completed; Marketing or logistics major in addition to MKT 300 or MKT 304; admission to Professional Business Studies or listed on signed major or minor. Recommended: Completion of 6 credit hours in marketing.

MKT 491 Independent Study 1-6(Spec)
Directed reading or research on an approved topic. Open to seniors in good academic standing. Prerequisites: prior permission of instructor and department chairperson; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 492 Practicum In Small Business 3(Spec)
Provides the student an opportunity to analyze the accounting, finance, marketing, management, and production systems of an ongoing small business. Identical to ACC/FIN/MGT 492. Credit may not be earned in more than one of these courses. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

Descriptions of courses approved for the University Program appear in italic type.
MKT 499 Strategic Marketing Problems 3(3-0)
A functionally integrative capstone course which focuses upon developing a decision-making framework. Students formulate and implement comprehensive marketing strategies within a global context. Prerequisites: 86 semester hours completed; MKT 305, MKT 310, MKT 320, MKT 450; admission to Professional Business Studies or listed on student major or minor.

MKT 555 Market and Sales Forecasting 3(3-0)
Develops familiarity with methods most commonly used in market and sales forecasting. Both qualitative and quantitative methods are included with emphasis on the latter. Prerequisites: one course in MKT; one course in statistics or MKT 450; admission to Professional Business Studies; 86 semester hours completed.

MKT 560 International Marketing 3(3-0)
Policies and practices employed in international business. Considers problems of international payments, trade and investment with special emphasis on integrating managerial dimensions with related economic principles. Prerequisites: MKT 300 or MKT 304; admission to Professional Business Studies; senior standing; 86 semester hours completed. This course is approved for offering in a distance learning format.

MKT 597 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcripts. Prerequisites: permission of the instructor.

MKT 690 Thesis 1-6(Spec)
A functionally integrative capstone course which focuses upon developing a comprehensive marketing strategy within a global context. Students will formulate and implement their own decision-making framework. Prerequisites: MSL 397 or permission of the instructor. Specific topic will be listed on the student’s transcripts. See the current College of Graduate Studies Bulletin.

MKT 797 Thesis 1-6(Spec)
A functionally integrative capstone course which focuses upon developing a comprehensive marketing strategy within a global context. Students will formulate and implement their own decision-making framework. Prerequisites: MSL 397 or permission of the instructor. Specific topic will be listed on the student’s transcripts. See the current College of Graduate Studies Bulletin.

Military Science (MSL)
See the Department of Military Science for more information. The focus of all Military Science Courses is leadership development. All courses include student work using the Army’s Leadership Framework. The curriculum is fully integrated and designed to be completed in progressive order. All on-campus courses include a student-led Leadership Lab, which includes hands-on training in: rappelling, rock climbing, high-ropes course, marksmanship, water survival, orienteering, map reading, first aid, weapons, drill, squad tactics, patrolling, and team building exercises. The complete description of the Department of Military Science is found in the College of Humanities and Social & Behavioral Sciences.

MSL 101 Foundations of Officerhip 2(1-2)
Introduction to officerhip, values, ethics, stereotypes, military service, customs, traditions, and fitness; addresses management of time, information, stress, and change.

MSL 102 Basic Leadership 2(1-2)
Introduction to military leadership, briefings, writing, interpersonal communications, problem-solving, decision-making, critical thinking, goal setting, assertiveness, counseling, and nutrition; explores Army opportunities and benefits.

MSL 201 Individual Leadership Studies 3(3-0)
Studies in personal well-being, self-development, problem solving, and decision-making; group dynamics, communication and values and ethics; introduces team-building, leading and assessing group actions. Prerequisites: MSL 102 or permission of MSL Chairperson.

MSL 202 Leadership and Teamwork 3(2-2)
Continuing studies in self-development and team-building. Introduces group problem solving, planning group actions, risk management, diversity, persuasion, and the profession of arms. Recommended: MSL 201 or permission of MSL Chairperson.

MSL 301 Leadership and Problem Solving 4(2-2)

MSL 302 Leadership and Ethics 4(3-2)
Planning, leading, and assessing small unit actions. Studies in ethical decision-making, military briefings, writing, power, personality, followership, diversity, group cohesion and dysfunction. Prerequisite: MSL 301 or permission of MSL Chairperson.

MSL 397 Special Topics in Military Science and Leadership 1-6(Spec)
Studies in military science or leadership. Topics may include: military leadership, military logistics, military administration, military operations or military history. Prerequisite: permission of the MSL Chairperson.
MTH 401 Leadership and Management 4(3-2)
MPL capstone. Planning, leading, assessing large unit actions. Advanced
studies in staff organizations, training management, meetings, counseling,
 improving subordinates, managing organizational change. Prerequisites:
MPL 301, MPL 302; or permission of MPL Chairperson.

MTH 402 Officiership 4(3-2)
MPL capstone. Planning, leading, assessing large unit actions. Advanced
studies in officiership, campaign analysis, ethical climate, task organization,
Army missions, resource management, and leadership vision. Prerequisite:
MPL 401 or permission of MPL Chairperson.

Museum Studies (MST)
See the Interdisciplinary Museum Studies Minor for more information.

MST 546 Introduction to Museum Work 3(3-0)
Exploration of the duties and responsibilities encountered in museum work.
Collection care and development, exhibit preparation, and educational pro-
gram development. Prerequisite: 56 hours of course credit, or permission of
instructor.

MST 547 Museum Science Laboratory 3(0-6)
Experiential learning with hands-on and theoretical experience in museum
science techniques. Prerequisites: MST 546; 56 semester
hours of course credit; or permission of instructor.

MST 550 Museum Collections Management and Care 3(3-0)
Curatorial techniques in museums including acquisition, cataloging, legal
requirements, preservation, computerization and proper handling. Prerequi-
ties: MST 546; 56 hours of course credit; or permission of instructor.

MST 551 Museum Education and Interpretation Techniques 3(3-0)
Interpretive methods used by museums including development and imple-
mentation of programs and enhancement of interpretive skills. Prerequisites:
MST 546; 56 hours of course credit.

MST 598 Museum Internship 6(Spec)
Supervised practical experience in the operation of museum facilities and
programs. Designed to apply a variety of classroom concepts and skills
within a supervised organizational setting. Prerequisites: MST 546, MST
550, MST 551; must be a graduate student or have declared an undergradu-
ate minor in Museum Studies; or permission of instructor.

Mathematics (MTH)
See the Department of Mathematics for more information.

MTH 051 Review for Elementary Teachers Mathematics Proficiency Test
1-2(Spec)
Review for elementary teachers proficiency tests on base ten numeration,
common and decimal fractions, percentage, U.S. customary and metric mea-
sures, ratio and proportion, geometry, and algebra. Credit in this course does
not count toward the total number of hours required for graduation. It does
count in determining whether you are a full-time student. CR/NC only.

MTH 055 Elementary Algebra 3(3-0)
The real number system, basic number theory, variables and algebraic
expressions, exponents, the Cartesian coordinate system, linear equations,
percent, operations with polynomials, reading charts and graphs. Word
problems and calculator use are emphasized. Credit in this course does not
count toward the total number of hours required for graduation. It does
count in determining whether you are a full-time student. CR/NC only.

MTH 105 Intermediate Algebra 3(3-0)
Algebraic expressions, functions, factoring, graphing, linear and quadratic
equations, linear inequalities, systems of linear equations, rational expres-
sions, radicals, negative and rational exponents. Successful completion of
this course satisfies the University Mathematics Competency requirement.
Prerequisite: Placement test score; or successful completion of MTH 055 or
equivalent. This course is approved for offering in a distance learning format.

MTH 106 Plane Trigonometry 3(3-0)
Solutions of triangles, trigonometric equations, and identities. No credit in
MTH 106 after credit earned in MTH 130. Course does not count toward
a major, minor in mathematics except for students pursuing a B.S. in Ed., El-
ementary Emphasis. Recommended: one and one-half years of high school
mathematics. This course is approved for offering in a distance learning format.

MTH 107 College Algebra 3(3-0)
Complex numbers, introduction to functions, zeros, graphing, linear
functions, quadratic functions, intersections of graphs, interpreting graphs,
inequalities, polynomial and rational functions, algebra of functions. Course
does not count toward a major, minor in mathematics except for students
pursuing a B.S. in Ed., Elementary Education. Prerequisites: successful
completion of MTH 105, or equivalent competency.

MTH 108 Trigonometry 1(1-0)
Analytic trigonometry including radian measure, trigonometric functions
and identities. This supplement to previous work in trigonometry may be
taken concurrently with MTH 130, MTH 132 or MTH 136. No credit after
completion of MTH 108. Does not count toward a major or minor in math-
ematics. Prerequisites: successful knowledge of trigonometry.

MTH 130 Pre-Calculus Mathematics 4(4-0)
Sets, mathematical induction, functions, relations, theory of equations,
analytic geometry. Recommended: two years of high school algebra (or
MTH 107); trigonometry (or MTH 106) or equivalents.

MTH 132 Calculus I 4(4-0)
Limits, continuity, interpretations of the derivative, differentiation of elemen-
tary functions, applications of derivatives, antiderivatives, Riemann sums,
definite integrals, fundamental theorem of calculus. Prerequisite: MTH 130
or equivalent. (Group II-B)

MTH 133 Calculus II 4(4-0)
Techniques of integration, applications of definite integrals, improper inte-
grals, elementary differential equations, indeterminate forms, infinite series,
Taylor series, polar coordinates and complex numbers. Prerequisite: MTH
132.

MTH 151 Mathematics for Elementary Teachers I 3(3-0)
Mathematical background for elementary teachers. Sets, numbering sys-
tems, operations with natural numbers, rational numbers, elementary number
theory. Admission limited to students pursuing a B.S. in Ed., Elementary
Emphasis. No credit in both MTH 151 and MTH 201 except by permission
of department chairperson. Prerequisite: one of: MTH 105, MTH 106, MTH
107, MTH 130, MTH 132.

MTH 152 Mathematics for Elementary Teachers II 3(3-0)
Continuation of MTH 151. Decimals, percent, ratio/proportion, geometry
(concepts and measurement), probability, statistics. Prerequisites: MTH 151;
and one of MTH 105, MTH 106, MTH 107, MTH 130, MTH 132.

MTH 175 Discrete Mathematics 3(3-0)
Topics in discrete mathematics including sequences, graphs, mathematical
induction, recursion, number theory, combinatorial counting, difference equa-
tions, algorithms, and Boolean Algebra. No credit in MTH 175 after credit in
MTH 375 or MTH 332. Prerequisite: MTH 130 or equivalent.

MTH 200 Mathematics-A Cultural Approach 3(3-0)
The role of mathematics in molding our civilization and culture and the
relationship of mathematics in such diverse disciplines as philosophy, logic,
religion, literature, the physical and social sciences, music, painting, and
other arts. This course does not satisfy Mathematics Competency Require-
ment. (Group I-A)

MTH 201 Fundamentals of Mathematics 3(3-0)
History of mathematics, mathematical logic, numbering systems, proper-
ties of natural numbers and fractions, statistics, and selected subjects from
algebra and geometry. No credit in course for anyone who has three or more
years of high school mathematics or MTH 151. May not be counted toward
major, minor in mathematics. For College of Extended Learning use only.

MTH 203 Mathematics: A Modeling Approach 3(3-0)
The role of mathematics in molding our civilization and culture and the
relationship of mathematics in such diverse disciplines as philosophy, logic,
religion, literature, the physical and social sciences, music, painting, and
other arts. This course does not satisfy Mathematics Competency Require-
ment. (Group II-B)

MTH 217 Business Calculus 4(4-0)
Differential and integration of algebraic, exponential, and logarithmic
functions, applications of differentiation and integration, partial derivatives.
Does not count toward a major or minor in mathematics. Recommended:
MTH 137.

MTH 223 Linear Algebra and Matrix Theory 3(3-0)
Systems of linear equations, matrices, determinants, vectors, vector spac-
es, eigenvalues, linear transformations, applications and numerical methods.
Prerequisite: MTH 132.

MTH 224 Linear Algebra and Differential Equations 3(3-0)
First order differential equations, systems of linear differential equations,
matrices, vector spaces, linear transformations and eigenvalues. May not be
counted toward major or minor in mathematics. Credit may not be earned in
both MTH 223 and MTH 232, or in both MTH 334 and MTH 232. Prerequi-
tive: MTH 132.

MTH 233 Calculus III 4(4-0)
Vectors and surfaces in R3, vector-valued functions, functions of several
variables, partial differentiation and some applications, multiple integrals, vec-
tor calculus. Prerequisites: MTH 133, and either MTH 223 or MTH 232.

MTH 256 Problem Solving with Technology for K-8 Mathematics Teachers
3(3-0)
Provides students with opportunities to enhance and develop their under-
standing and use of technology in teaching mathematics. Prerequisites:
MTH 130, 151 and 152.
MTH 261 Problem-Based Algebra and Calculus for Secondary Teachers 3(3-0)
Algebra and Calculus content are explored through a problem-based and technology-enhanced approach connecting secondary mathematics curricula with undergraduate mathematics and pedagogical content. Prerequisites: MTH 133; signed secondary mathematics major or minor.

MTH 278 Mathematical Models 3(3-0)
Mathematical modeling of real world problems using concepts learned in algebra, calculus and statistics. Prerequisites: MTH 132 or MTH 217. Corequisites: STA 292 or STA 392 or equivalent.

MTH 296 Special Topics in Mathematics 1-6(Spec)
Subject matter not included in regular course. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of instructor.

MTH 332 Introduction to Analysis 3(3-0)
Study of several basic concepts in mathematics including logic, set theory, relations and functions, cardinality, number systems, sequences. Prerequisite or Corequisite: MTH 223.

MTH 334 Differential Equations 3(3-0)
Definition and solution of first, second, and higher order differential equations. Prerequisites: MTH 137; or MTH 133, MTH 223.

MTH 341 College Geometry 3(3-0)
Advanced modern geometry and foundations. Prerequisite: MTH 332.

MTH 351 Geometry for K-8 Mathematics Teachers 3(3-0)
This course examines geometry focusing on systems with the purpose of developing the ability to create mathematical proofs, and an understanding of the processes involved in learning and teaching proofs and reasoning in K-8 geometry. Prerequisite: MTH 256.

MTH 361 Field Experience in Teaching Mathematics 1(Spec)
Preparation for and experience in working with students in secondary (7-12) mathematics classrooms. Prerequisites: MTH 223.

MTH 362 Problem-Based Geometry for Secondary Teachers 3(3-0)
Geometry content is explored through a problem-based and technology-enhanced approach connecting secondary mathematics curricula with undergraduate mathematics and pedagogical content. Prerequisites: MTH 223 and 261; signed secondary mathematics major or minor.

MTH 363 Problem-Based Probability and Statistics for Secondary Teachers 3(3-0)
Probability and Statistics content are explored through a problem-based and technology-enhanced approach connecting secondary mathematics curricula with undergraduate mathematics and pedagogical content. Prerequisites: MTH 223, 261; signed secondary mathematics major or minor.

MTH 375 Discrete Structures 3(3-0)
Relational operations and computer operations, applications of graph theory, graphical algorithms, discrete algebraic structure. Prerequisites: MTH 133 or MTH 223; MTH 175 or MTH 332.

MTH 397 Independent Study 1-6(Spec)
The in-depth study of a topic in mathematics under the direction of a faculty member. May be taken for credit more than once, total credit not to exceed six hours. Prerequisite: Permission of instructor.

MTH 434 Methods of Applied Mathematics 3(3-0)
Topics in applied mathematics and boundary value problems and orthogonal functions, partial differential equations, and complex variables. Prerequisites: MTH 233, MTH 334.

MTH 438 Numerical Analysis I 3(3-0)
Computational methods for solving non-linear equations and systems of linear equations. Interpolation, numerical differentiation and integration. Prerequisites: MTH 133, MTH 223 or their equivalents; knowledge of a programming language; or permission of instructor.

MTH 439 Numerical Analysis II 3(3-0)
Continuation of MTH 438. Solutions to ordinary differential equations. Study of approximation theory and solutions to nonlinear systems of equations. Prerequisite: MTH 438.

MTH 461 Teaching of Secondary School Mathematics 4(4-0)
Materials, teaching techniques for prospective secondary mathematics teacher. Course does not count as one of two 400 or 500 level courses on mathematics major. May not be counted toward a major or minor in mathematics except for students pursuing a B.S. in Ed. degree. Open only to seniors and approved juniors. Prerequisites: MTH 223, MTH 341.

MTH 462 Capstone on Teaching and Learning Mathematics for Secondary Teachers 3(3-0)
This course exposes pre-service secondary mathematics teachers to theory and practice of curriculum and instruction in secondary schools, introducing current literature and designing instructional units. Prerequisites: MTH 362, 363; signed secondary mathematics major or minor.

MTH 496 Special Topics in Mathematics 1-6(Spec)
Subject matter not included in regular course. May be taken more than once, total credit not to exceed 6 hours. Prerequisite: permission of instructor.

MTH 499 Capstone Course in Mathematics 3(3-0)
Material in core mathematics courses is unified through study of subject matter excluded from regular mathematics courses, in the areas of classical and applied mathematics. Prerequisites: MTH 133, MTH 332; permission of instructor.

MTH 520 Optimization Theory 3(3-0)
An introduction to the theory, practical applications and algorithms of non-linear programming. Prerequisites: MTH 233.

MTH 521 Theory of Numbers 3(3-0)
Properties of integers, congruences, greatest common divisors and prime factorization, applications of number theory to computer science and cryptography. Prerequisite: MTH 332 or permission of instructor.

MTH 522 Math of Cryptology 3(3-0)
The mathematics and algorithms of classical and computer-age cryptology. Substitution, transposition, and use of ciphers; DES, Rijndael and public key cryptography; cryptanalysis of cipher systems. Prerequisites: CPS 340 or MTH 332.

MTH 523 Modern Algebra I 3(3-0)
Groups, rings, integral domains, fields, and fundamental homomorphism theorems. Prerequisite: MTH 332 or graduate status.

MTH 525 Modern Algebra II 3(3-0)
Vector spaces, subspaces, bases and dimensions; linear transformations, their algebra, their representation by matrices, and linear functionals; eigenvalues, triangulizable and diagonalizable transformations; inner product spaces. Prerequisite: MTH 523.

MTH 532 Advanced Calculus I 3(3-0)
Rigorous development of calculus for functions of one variable. Sequences, limits, continuity, differentiation, integration, exponential and logarithmic functions, series. Credit will not count toward M.A. or Ph.D. degree requirements in mathematics. Prerequisites: MTH 233 and MTH 332, or graduate status.

MTH 533 Advanced Calculus II 3(3-0)
Continuati of MTH 532. Rigorous development of calculus for functions of several variables. Limits, continuity, differentiation, and integration. Prerequisite: MTH 532.

MTH 539 Mathematical Foundations of Actuarial Science 3(3-0)
Develop a knowledge of fundamental mathematical tools for quantitatively assessing risk. The application of these tools to problems encountered in actuarial science is emphasized. Does not count toward graduate degree. CR/NC only. Prerequisites: FIN 257; STA 584.

MTH 545 Introduction to Point-Set Topology 3(3-0)
Development of elementary point-set topology. Sets, functions, metric spaces, topological spaces, quotient surfaces, compactness, and connectedness. Prerequisite: MTH 332 or graduate status.

MTH 551 Mathematical Structures for K-8 Mathematics Teachers 3(3-0)
Problem-solving, set theory, logic, number theory, algebra, consumer mathematics and mathematical systems. Credit will not apply toward a master’s degree in mathematics. Prerequisites: MTH 361 and MTH 554.

MTH 553 History of Elementary Mathematics for K-8 Teachers 3(3-0)
History of mathematical developments of western and non-western cultures for use in grades K-8. Credit can only be earned in one of the following: MTH 253 or MTH 553 and will not apply toward master’s degree in mathematics. Prerequisites: MTH 551 and MTH 554.

MTH 554 Probability and Statistics for K-8 Mathematics Teachers 3(3-0)
Examines experimental and theoretical probability and statistics suitable for elementary and middle school. Simulations, counting techniques, and data gathering, organization, analysis and presentations. Credit will not apply toward Master’s degree in mathematics. Prerequisites: MTH 256.

MTH 556 Microcomputers for Elementary Mathematics Teachers 3(3-0)
Develops the use of microcomputers in elementary education with particular emphasis on mathematical applications. Computer literacy and BASIC programming are included. Open only to those students pursuing a B.S. in Elementary Emphasis. Prerequisites: MTH 107, MTH 251 or equivalent.

MTH 565 Using Graphics Calculators in Mathematics Education 1(1-0)
Course is designed for secondary mathematics education majors and minors. Emphasis will be on the classroom use of graphics calculators to teach mathematics. Prerequisites: MTH 132; with MTH 223 as a corequisite.

MTH 566 Microprocessors for Secondary Mathematics Teachers 3(3-0)
Examines microcomputer use in secondary education with particular emphasis on mathematical applications. Open only to those students pursuing a B.S. in Ed., Secondary Emphasis. Prerequisite: MTH 223 or equivalent.

MTH 570 Mathematical Logic 3(3-0)
Logical connectives, truth tables, quantifiers, models, logical truth. Incompleteness and undecidability of elementary number theory. Prerequisite: MTH 300.

MTH 573 History of Mathematics 3(3-0)
History of arithmetic, algebra, geometry, calculus. Prerequisites: MTH 332 or MTH 341, or graduate status.

Descriptions of courses approved for the University Program appear in italic type.
MTH 578 Combinatorics I 3(3-0)
Introduction to the basic principles of combinatorics and graph theory with applications to problems of nonmathematical origin. Prerequisites: MTH 523.

MTH 586 Operations Research I 3(3-0)
Mathematical theory and applications of mathematical programming. Linear programming duality, integer programming, mixed integer programming, and dynamic programming. Prerequisites: MTH 133.

MTH 587 Operations Research II 3(3-0)
Continuation of MTH 586. Theory and application of stochastic models in operations research. Inventory models, queueing theory. Markov chains, stochastic programming. Prerequisites: STA 350, MTH 586, or equivalent.

MTH 591 Seminar in the Solution of Putnam Problems 1-3(Spec)
Problem-solving techniques demonstrated through solutions of the Putnam Examination problems. Designed particularly for those students interested in participating in the Putnam Examination. Prerequisite: MTH 233; permission of instructor.

MTH 594 Seminar in Higher Mathematics 3(3-0)
Class presentation of results of independent study, and final comprehensive written report in an approved subject. Prerequisite: one year of calculus; permission of instructor.

MTH 595 Special Topics in Mathematics Education 1-6(Spec)
Subject matter not included in regular mathematics education course. May be taken for credit more than once, total credit not to exceed 6 hours. Does not count as one of two 400 or 500-level courses required on mathematics major. May not be counted toward a major or minor in mathematics except for students pursuing a B.S. in Ed. degree. Prerequisite: permission of instructor.

MTH 596 Special Topics in Mathematics 1-6(Spec)
Subject matter not included in regular course. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of instructor.

MTH 597 Independent Study 1-6(Spec)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

MTH 619 Continuing Registration for Final Research Project 1(1-0)

MTH 623 The Theory of Groups 3(3-0)

MTH 625 Theory of Associative Rings 3(3-0)

MTH 632 Introduction to Real Analysis and Its Applications 3(3-0)

MTH 633 Real Variables 3(3-0)

MTH 634 Fourier Analysis 3(3-0)

MTH 636 Introduction to Complex Variables 3(3-0)

MTH 637 Complex Variable Theory 3(3-0)

MTH 638 Theoretical Numerical Analysis 3(3-0)

MTH 641 Topics in Geometry 3(3-0)

MTH 645 Topology 3(3-0)

MTH 651 Basic Ideas and Procedures in Elementary School Arithmetic 3(3-0)

MTH 652 The Teaching of Measurement 3(3-0)

MTH 656 Teaching & Learning Mathematics with Technology 3(3-0)

MTH 658 Workshop in Teaching Mathematics 1-5(Spec)

MTH 660 Laboratory: Construction and Use of Teaching Aids in Mathematics 2(1-2)

MTH 661 The Teaching of Middle School Mathematics 3(3-0)

MTH 666 Seminar: Problems in the Teaching and Supervision of Secondary 3(3-0)

MTH 671 Introduction to the Axiomatic Method 3(3-0)

MTH 673 History of Advanced Mathematics 3(3-0)

MTH 678 Combinatorics II 3(3-0)

MTH 692 Graduate Seminar in Mathematics Education 1-4(Spec)

MTH 693 Graduate Seminar in Mathematics and Its Applications 1-4(Spec)

MTH 694 Practicum in Mathematics 3(3-0)

MTH 695 Special Topics in Mathematics Education 1-6(Spec)

MTH 696 Special Topics in Mathematics 1-6(Spec)

MTH 697 Independent Study 1-9(Spec)

MTH 698 Plan B Project 1-2(Spec)

MTH 725 Topics in Algebra 3(3-0)

MTH 732 Functional Analysis 3(3-0)

MTH 734 Partial Differential Equations and Applications 3(3-0)

MTH 761 Methods for Teaching College Mathematics 3(3-0)

MTH 762 Research in Collegiate Mathematics Education 3(3-0)

MTH 764 Qualitative Research Methods in Mathematics Education 3(3-0)

MTH 766 Internship: College Teaching 3(6(Spec)

MTH 767 Seminar in Collegiate Mathematics Education I 3(3-0)

MTH 768 Seminar in Collegiate Mathematics Education II 3(3-0)

MTH 778 Topics in Combinatorics 3(3-0)

MTH 796 Special Topics in Mathematics 1-6(Spec)

MTH 797 Independent Study 1-9(Spec)

MTH 798 Thesis 1-6(Spec)

MTH 898 Dissertation 1-30(Spec)

Music (MUS)
See the School of Music for more information.

School of Music Course Numbering
Course numbers are coded according to content. The middle digit of the number indicates content as follows:

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MUS 055 Basic Musicanship 2-1(2)
Music notation, reading, listening, and singing competency requirement. Credits in this class do not count toward the total number of hours required for graduation. It does not count in determining whether one is a full-time student. CR/NC only.

MUS 097 Recital Attendance 0
Attendance at various recitals and concerts in the School of Music. B.M. and B.M.E. music majors are required to register for and complete seven (7) semesters of MUS 097. B.A. and B.S. music majors are required to register for and complete four (4) semesters of MUS 097. Transfer students must see an advisor for exceptions. CR/NC only. Prerequisites: approved music major.

MUS 101 Theory I 3(3-0)
Basic training in the melodic, harmonic, and rhythmic elements of music. Not recommended for non-majors or non-minors.

MUS 102 Theory II 3(3-0)
Continuation of MUS 101. Prerequisites: MUS 101.

MUS 103 Sight Singing and Ear Training I 1(0-2)
Corequisite: MUS 101.

MUS 104 Sight Singing and Ear Training II 1(0-2)
Prerequisites: MUS 101, MUS 103.

MUS 109 Introduction to Music Technology 1(1-1)
A hands-on introduction to the use of computers, software, synthesizers, and related equipment as it relates to music and music education.

MUS 110 Music in Society 2-3(Spec)
Introduction to self-expression through the art of music. An intercultural and interdisciplinary exploration of the elements of music. Not open to music majors. This course is approved for offering in a distance learning format. (Group I-B)

MUS 114 Listening Experience 3(3-0)
Objectives are to experience a variety of musical events, to develop musical awareness, to sharpen perception, and increase musical discrimination. Not open to music majors. (Group I-B)

MUS 134 Music in Early Childhood 3(3-0)
A course designed to develop an understanding of the use of musical experiences to aid in the development of the young child. Enrollment limited to students with a signed major in Child Development: Pre-School or by permission of instructor. May be substituted for MUS 132 in the above mentioned major. Prerequisite: MUS 131.

MUS 141 Vocal Techniques I 1(0-2)
Study and practice of basic techniques necessary to improve the singing voice (i.e. posture, breathing habits, tone, diction).

MUS 142 Vocal Techniques II 1(0-2)
Continuation of work begun in MUS 141.

MUS 144 Woodwind Techniques 2(0-4)
Flute, clarinet, saxophone.

MUS 146 Brass Techniques 2(0-4)
Trumpet, French horn, trombone, baritone, tuba.

MUS 147 Piano Class I 1(0-2)
Beginning class piano instruction.

MUS 148 Piano Class II 1(0-2)

Descriptions of courses approved for the University Program appear in italic type.
Continuation of work begun in MUS 147. Prerequisite: MUS 147 or permission of instructor.

MUS 149 Beginning and Intermediate Guitar 1-(1-0)
Guitars not provided. Open to all students.

MUS 150 Voice 1-12(Spec)

MUS 151 Organ 1-12(Spec)*

MUS 152 Piano 1-12(Spec)*

MUS 153 Violin and Viola 1-12(Spec)*

MUS 155 Violoncello 1-12(Spec)*

MUS 157 String Bass 1-12(Spec)*

MUS 158 Composition 1-4(Spec)
Applied study of music composition. Prerequisites: Minimum GPA of 3.0 in MUS 101, MUS 102, MUS 103, MUS 104, and permission of instructor.

MUS 159 Jazz Guitar 1-8(Spec)
Individual instruction in jazz guitar performance. Prerequisites: permission of instructor and admission to the music program.

MUS 161 Flute 1-12(Spec)*

MUS 163 Oboe 1-12(Spec)*

MUS 165 Clarinet 1-12(Spec)*

MUS 167 Bassoon 1-12(Spec)*

MUS 169 Saxophone 1-12(Spec)*

MUS 171 Cornet or trumpet 1-12(Spec)*

MUS 173 French Horn 1-12(Spec)*

MUS 175 Trombone 1-12(Spec)*

MUS 177 Euphonium 1-12(Spec)*

MUS 178 Tuba 1-12(Spec)*

MUS 179 Percussion 1-12(Spec)*

MUS 180 Festival Chorus 1-8(Spec)
Preparation and performance of major choral compositions. No audition required. Students may enroll a maximum of eight semesters.

MUS 181 Men’s Chorus 1-8(Spec)
Open by audition to any student in the University.

MUS 182 Women’s Chorus 1-8(Spec)
Open by audition to any student in the University.

MUS 183 Concert Choir 1-8(Spec)
Open by audition to any student in the University.

MUS 185 Orchestra 1-8(Spec)
Open to anyone who can demonstrate the necessary proficiency on an orchestral instrument.

MUS 186 Band 1-8(Spec)
Open to anyone who can demonstrate the necessary proficiency on a band instrument.

MUS 187 String Orchestra 1-8(Spec)
Open to anyone who can demonstrate the necessary proficiency on a string instrument.

MUS 188 Men’s Barbershop 1-8(Spec)
Open by audition to anyone who can demonstrate the appropriate vocal proficiency.

MUS 189 Introduction to Accompanying 1-(0-2)
Experience in accompanying vocal and instrumental music. Prerequisite: admission to music program or permission of instructor.

MUS 197 Special Studies 1-8(Spec)*

MUS 201 Theory III 3-(3-0)
Continuation of MUS 102. Study of chromatic harmony and large formal structures. Prerequisites: MUS 102.

MUS 202 Theory IV 3-(3-0)
Continuation of MUS 201. Study of chromatic harmony (late 19th and early 20th centuries), and large formal structures. Prerequisites: MUS 201.

MUS 203 Sight Singing and Ear Training III 1-(0-2)
Prerequisites: MUS 102, MUS 104.

MUS 204 Sight Singing and Ear Training IV 1-(0-2)
Prerequisites: MUS 102, MUS 203.

MUS 206 Understanding Musical Composition 3-(3-0)
Develop basic theory skills in notation, sight-singing, listening, composition, and the aesthetic appreciation of music in Western culture. Not open to music majors. (Group I-B)

MUS 209 Music Synthesis I 2-(2-0)
An introduction to computer programs that both print and play music through computers and electronic instruments. Prerequisites: MUS 148 or MUS 152, MUS 101 or MUS 206 or equivalent; permission of instructor.

MUS 211 Historical Survey of Music I 3-(3-0)
Western music history from ancient times to c.1700. Includes an introduction to the music of selected non-western cultures. Prerequisite: MUS 101.

MUS 212 Historical Survey of Music II 3-(3-0)
Continuation of the work begun in MUS 211. Western music history from the Baroque through early Romanticism (c. 1700-1850). Prerequisite: MUS 211.

MUS 213 Jazz: An American Art Form 3-(3-0)
A music literature course reviewing important trends and styles in the history of jazz. Open to all students. (Group I-B)

MUS 230 Introduction to Music Education 2-(1-2)
An overview of music teaching methodologies and observations of these methods as they are used by public school music teachers.

MUS 233 Musicianship for the Elementary School 3-(3-0)
Enrollment limited to students on the Curriculum for Teachers in Elementary Grades. A continuation of MUS 131. Prerequisite: MUS 101 or MUS 131, or permission of instructor.

MUS 235 Classroom Instrument Techniques 2-(0-4)
Principles, concepts, materials, and techniques for classroom instruments in a comprehensive, national standards-based general music program. Prerequisites: Admission to the music program.

MUS 236 Piano Pedagogy I 2-(2-0)
Introduction to elementary piano teaching methods and materials, including repertoire, sight-reading, technique, duets, and theory. Prerequisite: two semesters of MUS 122 or permission of instructor.

MUS 237 Piano Pedagogy II 2-(2-0)
Intermediate piano teaching methods and materials, including repertoire, sight-reading, technique, duets, and theory. Prerequisite: MUS 236.

MUS 241 Diction for Singers 1-(0-2)
Prerequisite: private voice study. Elementary pronunciation techniques in French, German, Italian, and Spanish as an aid to private voice study.

MUS 244 Double Reed Techniques 1-(0-2)
Prerequisite: MUS 144.

MUS 246 String Techniques I 2-(0-4)
Violin, viola, cello, bass viola.

MUS 247 Piano Class III 1-(0-2)
Prerequisite: MUS 148 or permission of instructor.

MUS 248 Piano Class IV 1-(0-2)
Prerequisite: MUS 247 or permission of instructor.

MUS 249 Functional Piano 1-(0-2)
Development of skills in harmonization, improvisation, transposition, and playing by ear for intermediate and advanced piano students. Prerequisites: placement audition or permission of instructor.

MUS 250 Voice 1-12(Spec)*

MUS 252 Jazz Piano 1-8(Spec)
Individual instruction in jazz piano performance. Prerequisites: Admission to music program and permission of instructor.

MUS 280 Introduction to Conducting 2-(0-4)
Development and coordination of the physical and musical skills needed by a conductor. Prerequisites: MUS 202, MUS 204; or permission of instructor.

MUS 281 Advanced Instrumental Ensemble 1-8(Spec)
Enrollment by permission of instructor only.

MUS 282 Advanced Vocal Ensemble 1-8(Spec)
Enrollment by audition only. May include Madrigals, Musical Theatre, or Opera Theatre.

MUS 284 Techniques for the Singing Actor 1-6(Spec)
Preparation and performance of solo roles in scenes from standard operas, chamber operas, and/or musical theatre. Prerequisites: private voice study; permission of instructor.

MUS 285 Percussion Ensemble 1-8(Spec)
Prerequisite: enrollment requires permission of percussion instructor.

MUS 286 Jazz Laboratory Band 1-8(Spec)
Prerequisite: Enrollment requires permission of instructor.

MUS 297 Special Studies 1-6(Spec)*

MUS 302 Contrapuntal Techniques 3-(3-0)
Contrapuntal techniques of the sixteenth and eighteenth centuries. Prerequisites: admission to Music candidacy; MUS 202.

MUS 304 Instrumentation and Scoring 3-(2-2)
Prerequisite: admission to Music candidacy; MUS 201, permission of instructor.

MUS 309 Music Synthesis II 2-(2-0)
Continuation of MUS 209, computer-driven synthesizer programs with emphasis on individual projects. Introduction to music samplers. Prerequisite: admission to Music candidacy; MUS 209 or equivalent training; permission of instructor.

MUS 311 Historical Survey of Music III 3-(3-0)
Continuation of the work begun in MUS 211 and MUS 212. Western music history from c.1850 to the present. Prerequisite: MUS 212.

MUS 313 Musics of the World 3-(3-0)

Descriptions of courses approved for the University Program appear in italic type.
MUS 314 History of Symphonic Literature 3(3-0)
Development of the symphony orchestra and changing styles and trends of its literature. Prerequisite: admission to Music Candidacy.

MUS 315 History of Opera 3(3-0)
Prerequisite: admission to Music Candidacy.

MUS 316 History and Literature of the Organ 2(2-0)
Prerequisite: admission to Music candidacy; four semesters of private organ study.

MUS 317 Song Repertoire for Young Voices 2(2-0)
Vocal literature suited for the teaching of voice in secondary schools. Prerequisite: admission to Music candidacy; private voice study; or MUS 141, MUS 142.

MUS 318 Song Repertoire 2(1-2)
A survey of song literature intended to broaden the repertoire of advanced students in private voice. Prerequisite: admission to Music candidacy; private voice study and dictation.

MUS 330 Music for Elementary Classroom Teachers 3(3-0)
Fundamentals and methods of teaching music for elementary classroom teachers. Prerequisites: EDU 107, Junior Status.

MUS 331 Instrumental Organization 2(2-0)
Includes all phases of instrumental organization and administration in the elementary, junior high, and senior high school. Prerequisites: admission to Music candidacy; MUS 230 or permission of instructor.

MUS 332 Double Reed Making 1(0-2)
Prerequisite: admission to Music candidacy; MUS 244 (may be taken concurrently), permission of instructor.

MUS 333 Music Education in the Elementary Grades 2(2-0)
Topics include objectives and instructional strategies for development of basic music concepts and skills in elementary classroom music. Prerequisite: MUS 230

MUS 335 Instrumental Pedagogy 2(2-0)
Instrumental pedagogy and practicum for the student’s major instrument on the Bachelor of Music degree. Orchestral Instrumental concentration. Prerequisites: admission to Music candidacy; junior or senior standing; instrumental music major or minor; or permission of instructor.

MUS 338 Voice Pedagogy 2(1-2)
Problems, procedures, teaching lab and materials for teaching correct vocal production. Prerequisites: admission to Music candidacy; MUS 101, permission of instructor.

MUS 339 Piano Pedagogy Practicum 1(1-1)
Supervised experience in teaching piano at the pre-college and college levels in both the private and group settings. Prerequisite: MUS 237.

MUS 344 Percussion Techniques 2(0-4)
Prerequisites: admission to Music candidacy.

MUS 350 Voice 1-20(Spec)*
MUS 351 Organ 1-20(Spec)*
MUS 352 Piano 1-20(Spec)*
MUS 353 Violin and Viola 1-20(Spec)*
MUS 355 Violoncello 1-20(Spec)*
MUS 357 String Bass 1-20(Spec)*
MUS 358 Composition 2-8(Spec)
Advanced applied study of music composition. Prerequisites: MUS 158, admission to music candidacy, and composition jury.

MUS 359 Jazz Guitar 1-8(Spec)
Individual instruction in jazz guitar performance. Prerequisites: permission of instructor and admission to the music program.

MUS 360 Harpsichord 1-8(Spec)
Study of solo harpsichord repertoire, continuo and ensemble playing, and figured bass. Prerequisite: 4 semesters of private organ or piano study, or permission of instructor.

MUS 361 Flute 1-20(Spec)*
MUS 363 Oboe 1-20(Spec)*
MUS 365 Clarinet 1-20(Spec)*
MUS 367 Bassoon 1-20(Spec)*
MUS 369 Saxophone 1-20(Spec)*
MUS 371 Cornet or Trumpet 1-20(Spec)*
MUS 373 French Horn 1-20(Spec)*
MUS 375 Trombone 1-20(Spec)*
MUS 377 Euphonium 1-20(Spec)*
MUS 378 Tuba 1-20(Spec)*
MUS 379 Percussion 1-20(Spec)*
MUS 381 Choral Conducting and Materials 2(0-4)
Basic principles of choral conducting with reading and evaluation of training and performance materials. Prerequisites: admission to Music candidacy; MUS 230, MUS 280; permission of instructor.

MUS 382 Instrumental Conducting and Materials 2(0-4)
Basic principles of instrumental conducting with reading and evaluation of training and performance materials. Prerequisites: admission to Music candidacy; MUS 230, MUS 280, and permission of instructor.

MUS 389 Service Playing 2(2-0)
Covers various worship services and liturgies. Prerequisite: admission to Music candidacy; 4 semesters of private organ study.

MUS 397 Special Studies 1-8(Spec)*

MUS 413 History and Literature of Church Music 2(2-0)
A nonsectarian study of church music of Europe and the United States. Prerequisites: admission to Music candidacy; MUS 311.

MUS 415 History of Chamber Music 3(3-0)
Development of chamber music. Changes in style, important genres, and formal techniques of its literature. Prerequisite: admission to Music candidacy.

MUS 419 Music Study Abroad 1-8(Spec)
This course is intended for students possessing prior experience in Music History and Music Theory who are studying abroad. Prerequisites: admission to Music candidacy; prior experience in music history and music theory.

MUS 433 Secondary General Music Methods 3(3-0)
Principles, concepts, materials, and methods of a comprehensive, national standards-based secondary school general/choral music program. Prerequisites: MUS 230; MUS 333; and admission to teacher education.

MUS 435 Music Education in the Junior High/Middle School 2(1-2)
Methods and materials for teaching in the junior high school, with special emphasis on the general music class. Prerequisite: Choral majors, Choral minors, and General Music minors: MUS 333; Bachelor of Science in Education, Instrumental majors: MUS 230.

MUS 450 Voice 1-10(Spec)*

MUS 457 Special Studies 1-6(Spec)*

MUS 502 Form Analysis 2(2-0)
Study and analysis of the melodic forms in music and the commonly used harmonization as found in the works of the early romantics. Prerequisite: MUS 201.

MUS 503 Advanced Counterpoint 2(2-0)
Prerequisite: MUS 303.

MUS 504 Contemporary Compositional Techniques 2(2-0)
Compositional techniques from 1945 to the present, with particular attention paid to electronic music. Prerequisite: MUS 202, MUS 309; or permission of instructor.

MUS 505 Seminar In Analysis: Twentieth-Century Music 2-4(Spec)*
MUS 506 Advanced Scoring 2(2-0)
Scoring for large ensembles. Prerequisites: MUS 304 or permission of instructor.

MUS 511 Choral Literature I 2(2-0)
Detailed study of small choral forms of the Renaissance and Baroque eras.

MUS 512 Choral Literature II (Since 1750) 2(2-0)
Representative small choral forms suitable for secondary school. Special attention to style characteristics which contribute to interpretive techniques.

MUS 514 Survey of Keyboard Literature 2(2-0)
Keyboard music from the sixteenth century to and including Beethoven.

MUS 516 Survey of Keyboard Literature II 2(2-0)
Piano music from Mendelssohn and Schubert to the present.

MUS 520 Jazz Arranging 3(3-0)
The study of basic arranging techniques used in writing music for small and large jazz ensembles. Prerequisites: admission to music candidacy or admission to the graduate music program.

MUS 521 Advanced Jazz Arranging 3(3-0)
The study of modern advanced arranging techniques used in writing music for large jazz ensembles. Prerequisite: admission to music candidacy or admission to the graduate music program; MUS 520.

MUS 531 Orff Techniques 2(1-2)
Philosophy, techniques, and pedagogy of Orff’s Music for Children. Prerequisites: MUS 131, MUS 132 or MUS 101; basic knowledge of music fundamentals.

MUS 532 Dalcroze Eurhythmics 2(1-2)
Introduction to the music teaching concepts of Jaques-Dalcroze. Prerequisites: MUS 101, MUS 131, or MUS 132, or by permission of instructor.

MUS 533 Kodaly Pedagogy 2(1-2)
Theory, materials, and pedagogy of the Kodaly method of music education. Prerequisite: MUS 435 or MUS 333, or permission of instructor.

MUS 534 Music for Pre-School Children 2(2-0)
Musical activities for the preschool child designed to nurture musical potential and promote musical awareness.

MUS 535 Workshop in Music Education 1-4(Spec)*

Descriptions of courses approved for the University Program appear in italic type.
MUS 597 Special Studies 1-6(Spec)
Individual instruction in jazz piano performance. May be taken more than once, for 1-2 credits per enrollment, not to exceed eight credits. Prerequisite: Permission of instructor.

MUS 598 Music Improvisation Laboratory 2(1-2)
Prerequisite: Permission of instructor.

MUS 599 Special Studies 1-6(Spec)*
For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

MUS 607 Basic Skills in Music Technology I 2(2-0)
MUS 608 Basic Skills in Music Technology II 2(2-0)
MUS 619 Continuing Registration for Final Research Project 1(1-0)
MUS 620 Jazz Harmony and Analysis 3(3-0)
MUS 621 Jazz Improvisation and Pedagogy 2(1-2)
MUS 622 Modern Jazz History 3(3-0)
MUS 624 Jazz Pedagogy 3(2-2)
MUS 631 Advanced Piano Pedagogy I 3(3-0)
MUS 632 Advanced Piano Pedagogy II 3(3-0)
MUS 633 Class Piano Pedagogy 3(3-0)
MUS 634 Internship in Piano Pedagogy 3(2-2)
MUS 701 Advanced Composition 2-6(Spec)
MUS 707 Analytical Styles I: Medieval - Classical 3(3-0)
MUS 708 Analytical Styles II: 19-20th Century 3(3-0)
MUS 711 Choral Literature from 1600 to 1750 3(3-0)*
MUS 713 The Development of Jazz Through 1945 3(3-0)
MUS 714 Wind Band Literature 3(3-0)
MUS 715 Rock 'n' Roll Seminar 3(3-0)
MUS 717 Historical Topics I: Medieval - Classical 3(3-0)
MUS 718 Historical Topics II: 19-20th Century 3(3-0)
MUS 719 Seminar in World Music 3(3-0)
MUS 731 Organization of School Music 3(3-0)
MUS 732 The Rational and Principles of Music Education 3(3-0)
MUS 733 Woodwind Pedagogy 3(3-0)
MUS 734 Brass Pedagogy 3(3-0)
MUS 735 Percussion Pedagogy 3(3-0)
MUS 736 String Pedagogy 3(3-0)
MUS 737 Pedagogy and Literature for Young Voices 3(2-2)
MUS 750 Voice 1-8(Spec)
MUS 751 Organ 1-8(Spec)*
MUS 752 Piano 1-8(Spec)*
MUS 753 Violin and Viola 1-8(Spec)
MUS 755 Violoncello 1-8(Spec)*
MUS 760 Harpsichord 1-8(Spec)*
MUS 761 Flute 1-8(Spec)*
MUS 763 Oboe 1-8(Spec)*
MUS 765 Clarinet 1-8(Spec)*
MUS 767 Bassoon 1-8(Spec)*
MUS 769 Saxophone 1-8(Spec)*
MUS 771 Cornet or Trumpet 1-8(Spec)*
MUS 773 French Horn 1-8(Spec)*
MUS 777 Euphonium 1-8(Spec)*
MUS 778 Tuba 1-8(Spec)*
MUS 779 Percussion 1-8(Spec)*
MUS 780 Performance Ensembles 1-2(Spec)
MUS 781 Advanced Choral Conducting 3-6(Spec)
MUS 782 Advanced Instrumental Conducting 3-6(Spec)
MUS 784 Instrumental Rehearsal Techniques 3(3-0)
MUS 791 Introduction to Music Research 3(3-0)
MUS 793 Research Project in Music Education 2(Spec)
MUS 794 Evaluation of Musical Behavior 3(3-0)
MUS 797 Special Studies 1-6(Spec)

MUS 798 Thesis 1-6(Spec)
MUS 799 Recital 4(Spec)

Ojibwe (OJB)
See the Interdisciplinary Bilingual Bicultural Education Ojibwe Minor for more information.

OJB 101 Elementary Ojibwe I 3(3-0)
Designed for students who have had no Ojibwe language instruction. Basic language skills. Introduction to Ojibwe culture via the language. (Group IV-B).

OJB 102 Elementary Ojibwe II 3(3-0)
Basic language skills. Continuation of OJB 101 including the continued introduction of the culture of the Ojibwe people. Prerequisite: OJB 101.

OJB 201 Intermediate Ojibwe I 3(3-0)
Review of grammar and further development of all language skills. Further explanation of Ojibwe culture. Prerequisites: OJB 101, OJB 102.

OJB 202 Intermediate Ojibwe II 3(3-0)
Designed for those who wish to continue the study of the Ojibwe language. The emphasis will be on the written language. Prerequisites: OJB 101, OJB 102; or knowledge of the Ojibwe language and OJB 201.

Sports Instructional Program (Activity) (PED)
See the Department of Physical Education and Sport for more information. Note: a limitation of 6 hours of PED and FRLA courses may be applied toward the requirements for graduation.

PED 121 Steelhead Fly Tying 1(Spec)
This course introduces the materials and techniques of tying flies for use in river steelhead fishing. $50 fee for materials.

PED 122 Diving, Beginning 1(Spec)
Beginning techniques of springboard diving. $10 aquatic fee.

PED 123 Aqua-Aerobics 1(Spec)
Fitness concepts and water exercise program for people of all ages and fitness levels. Prerequisite: None. CR/NC only. $10 aquatic fee.

PED 127 Beginning Swimming 1(1-0)
Instruction in basic skills of water adjustment, floating, kicking and learning to swim across the pool. CR/NC only. $10 aquatic fee.

PED 129 Intermediate Swimming 1(1-0)
Introduction to swim strokes, backstroke, front crawl, elementary backstroke, sidestroke, breaststroke, and butterfly. CR/NC only. $10 aquatic fee. Prerequisites: PED 127 or beginning level swimming competency; approval of instructor; ability to swim one length of pool.

PED 130 Advanced Swimming 1(1-0)
Conditioning and Advanced Swimming Stroke Techniques. CR/NC only. $10 aquatic fee. Prerequisites: PED 129 or intermediate level swimming competency; approval of instructor; skill in breaststroke, front crawl and sidestroke.

PED 131 Disc Golf 1(1-0)
Course is geared to entry level and beginner participants in the sport of disc golf. Uses flying discs (modified Frisbees).

PED 132 Introduction to Clogging 1(Spec)
Beginner level of clogging. Students will learn basic level clogging steps using a variety of music. Students will learn to read cue-sheets and understand the history of clogging. Identical to DAN 132. Credit may not be earned in more than one of these courses.

PED 136 Aerobic Kickboxing 2(Spec)
This course is designed to provide students with an aerobic workout while learning basic techniques based on various forms of martial arts.

PED 137 Fitness Walking 2(1-2)
A course comprised of fitness walking activities designed for students who want to begin a program to improve their cardiovascular endurance. Recommended: Physician approval.

PED 138 Hi-Lo Aerobics 2(Spec)
A beginning aerobic workout course comprised of conditioning activities and vigorous nonstop rhythmic movement patterns designed to improve or maintain cardiovascular endurance.

PED 139 Step Aerobics 2(1-1)
A course comprised of step aerobic conditioning activities and vigorous movement patterns designed to improve or maintain cardiovascular endurance. Recommended: Physician approval.

PED 140 Turbo Kick 2(Spec)
Interval training workout with kickboxing moves choreographed to contemporary music intended to focus on development of movement combinations and core strength.

PED 141 Judo 2(2-0)

Descriptions of courses approved for the University Program appear in italic type.
Judo is a Japanese martial art that is both an art and an Olympic Sport. It involves throwing and grappling techniques.

PED 142 Hapkido 2(2-0)
Hapkido is a Korean martial art that combines elements of Judo, Tae Kwon-Do and Aikido. It primarily focuses on self-defense techniques.

PED 144 Pilates 2(2-0)
Course designed to improve total fitness, posture, and appearance through exercise methods strengthening core postural muscles and developing body alignment using the Pilates model.

PED 145 Fundamentals of Gymnastics 1(Spec)
Designed primarily for students with no previous experience in gymnastics.

PED 146 Yoga: Beginning 1(Spec)
This course is designed to provide students with the basic foundations of yoga in order to create a safe and basic yoga practice.

PED 147 Introduction to Fitness Yoga 2(Spec)
This course is designed to provide students with the basic foundations for a safe and disciplined yoga practice while focusing on various aspects of fitness.

PED 150 Archery 1(Spec)
Student furnishes own arrows.

PED 153 Jogging 1(Spec)
A course comprised of jogging designed for students who want to begin a program to improve their cardiovascular endurance.

PED 154 Bowling 1(Spec)
A $25 course fee is charged.

PED 155 Beginning Fencing 1(Spec)
An introduction to the skills, strategies, and terminology of fencing. A $130 fee is charged for equipment.

PED 156 Golf, Beginning 1(Spec)
Introduction to golf. Includes instruction and practice on grip, stance, swing, equipment, strategy, specialty shots, the golf course, rules and etiquette are included.

PED 157 In-Line Skating 1(Spec)
Beginning techniques of in-line skating with a focus on safety and enjoyment.

PED 158 Beginning Figure Skating 2(Spec)
Beginning Figure Skating is intended to present basic skills to the class. The goal is for the skater to feel more secure on the ice and to have the ability to perform basic skills.

PED 159 Billiards, Beginning 1(Spec)
Development of beginning billiard skills.

PED 160 Racquetball, Beginning 1(Spec)
Student furnishes racquet, official ball, and eyeguard.

PED 161 Beginning Snowboarding 1(Spec)
Development of beginning snowboarding skills. $65.00 fee.

PED 163 Snow Skiing, Beginning 1(Spec)
A $65.00 course fee for lift tickets and lessons is charged. Student furnishes own equipment or rents it from ski resort.

PED 165 Tennis, Beginning 1(Spec)
Student furnishes own racket and balls.

PED 166 Beginning Foil Fencing 2(2-0)
Basics of fencing, footwork, blade work, and equipment use.

PED 168 Ice Hockey 2(Spec)
Course designed to gain an understanding, development, and appreciation of the skills of ice hockey.

PED 169 Workshop in Leisure Time Sports 1-6(Spec)*
Continued development of snowboarding skills. $65.00 fee. Recommended: PED 160.

PED 170 Fundamentals of Basketball 1(Spec)
Development of basic skills needed to play basketball.

PED 174 Team Sports 2(Spec)*

PED 175 Wallyball 1(1-0)
Wallyball combines the skills of volleyball, racquetball, and handball.

PED 176 Soccer 1(Spec)
An introduction to the skills, strategies and terminology of soccer through instruction and student participation.

PED 177 Softball 1(Spec)
Slow-pitch softball designed for beginners through advanced skilled performers.

PED 178 Volleyball, Beginning 1(Spec)
Introduction to basic skills, rules and strategy.

PED 179 Fundamentals of Floor Hockey 1(Spec)
To learn the fundamentals of floor hockey.

PED 180 Individual Program of Physical Activity 1-4(Spec)
Designed for students physically unable to participate in regularly scheduled activities.

PED 184 Military Physical Conditioning 1(Spec)*
PED 185 Physical Conditioning and Body Mechanics 1(Spec)
Development of physical conditioning using weight training equipment and cardiovascular exercises.

PED 186 Physical Fitness for Life 2(2-0)
Identical to PES 186. Credit may not be earned in more than one of these courses.

PED 188 Weight Training and Conditioning 2(Spec)
This is a personal fitness course. It will cover the importance of muscular work for acquiring strength needed for successful performance in most physical activities and its relationship to the total conditioning program.

PED 222 Diving, Intermediate 1(Spec)
Intermediate techniques of springboard diving.

PED 235 Intermediate Aerobic Kickboxing 2(Spec)
Non-contact, fast-paced, aerobic workout done to music utilizing kicks from martial arts and punches from boxing, while emphasizing heart rate monitoring and developing consistent form. Recommended: PED 138 or previous aerobic experience.

PED 238 Intermediate Aerobics 2(1-2)
This class provides increased length and difficulty of aerobic exercise. Designed to improve or maintain cardiovascular endurance for those with previous aerobic experience. Recommended: Previous aerobic experience; physician approval.

PED 246 Yoga: Intermediate 1(Spec)
This course is designed to strengthen the yoga practice of students who have had previous experience with the basic foundations of yoga.

PED 253 Marathon 2(1-2)
Class designed to physically and mentally prepare students to complete a marathon. Recommended: PED 153 or permission of instructor.

PED 254 Bowling, Intermediate 1(Spec)
To develop further understanding and appreciation of bowling. To develop further proficiency in the fundamental skills of bowling. Fee of $25. Recommended: PED 154 or equivalent.

PED 255 Intermediate Fencing 1(Spec)
Opportunity for students to continue beyond the beginning level of skill and strategy mastery. A $130 fee is charged for equipment. Prerequisite: PED 142.

PED 256 Intermediate Golf 1(Spec)
Intermediate golf skills taught. Classes meet at golf course. Student furnishes own clubs and transportation. A golf course fee of $40 is charged. Recommended: Beginning golf skills.

PED 258 Intermediate Figure Skating 2(Spec)
Intermediate Figure Skating is intended to present more advanced skills and combination moves to the class. The goal is for skaters to learn and execute more difficult skills and to gain speed and confidence on the ice.

PED 261 Intermediate Snowboarding 1(Spec)
Continued development of snowboarding skills. $65.00 fee. Recommended: PED 161 or permission of instructor.

PED 262 Snow Skiing, Intermediate 1(Spec)
A $65.00 course fee for lift tickets and lessons is charged. Student furnishes own equipment or rents it from ski resort.

PED 265 Tennis, Intermediate 1(Spec)
Student furnishes own racket and balls.

PED 266 Competitive Fencing 2(Spec)
Course will focus on botting, electric fencing, and tournament training in foil and épée. Prerequisites: PED 166 or PED 167.

PED 270 3-on-3 Basketball 1(Spec)
Development of skills needed to play 3-on-3 basketball. Recommended: PED 170 or permission of instructor.

PED 278 Volleyball, Intermediate 1(Spec)
Recommended: Skill test; student should perform spiking and defensive movements.

PED 285 Strength Training 1(Spec)
Course designed to provide students the opportunity to improve muscular strength and endurance through the utilization of resistant weight training.

PED 356 Golf, Advanced 2(2-0)
Development of advanced skills. Planning course strategy; rule interpretation; designing and administering tournaments; figuring handicaps, index, course slope. Class meets at golf course. Course fee is charged.

PED 358 Advanced Figure Skating 2(Spec)
Development of skills and combinations to gain proficiency in advanced figure skating. Skills and combinations include advanced jump and spin techniques. Recommended: PED 258; possession of intermediate figure skating skills as identified by the United States Figure Skating (USFS).

PED 360 Racquetball, Advanced 1(Spec)

Descriptions of courses approved for the University Program appear in italic type.
Student furnishes racket, official ball, and eye protection.

PED 361 Advanced Snowboarding 1(Spec)
To further understand, appreciate and develop proficiency in the skills of advanced snowboarding. $65.00 fee. Recommended: PED 261 or permission of instructor.

PED 362 Snow Skiing, Advanced 1(Spec)
A $65.00 course fee for lift tickets and lessons is charged. Student furnishes own equipment or rents it from ski resort.

PED 363 Indoor Racket and Paddle Sports 2-2(0)
Combines units in badminton-table tennis and/or tennis-tennis- raquetball; racket sports with somewhat similar strategies.

PED 365 Tennis, Advanced 1(Spec)
Student furnishes own racket and balls.

Physical Education Professional (PES)
See the Department of Physical Education and Sport for more information.

PES 103 Sport Skill Development - Elementary Level 3(Spec)
Sports for grades 4-8 for Physical Education Elementary minors and for Physical Education majors.

PES 104 Sport Skill Development - Secondary Level 3(Spec)
Sports for grades 7-12 for Physical Education Secondary minors and for Physical Education majors.

PES 115 Fundamental Motor Skills 2(2-0)
Identification, classification, and performance of fundamental motor skills with emphasis on recognition of proper/improper techniques.

PES 118 Sport in America 3(3-0)
A study of sport in America from different methodological perspectives. An historical and sociological investigation of sport as a social institution.

PES 120 Skin and Scuba Diving 2(1-2)
Provides an opportunity for learning the techniques and knowledge of safe skin and scuba diving. Students must provide mask, fins, and snorkel. $100 fee.

PES 143 Sexual Assault and Harassment/Awareness and Avoidance 2(2-0)
A course designed to provide students with appropriate knowledge and skills to deal appropriately with sexual assault and sexual harassment.

PES 145 Skill Development in Gymnastics 1(0-2)*
Introduction to basic skill development and strategy in the various competitive and field running events.

PES 170 Fundamentals of Basketball 1(Spec)
Development of basic skills needed to play basketball.

PES 172 Fundamentals of Baseball and Softball 1(Spec)
Development of basic skills needed to play baseball and softball.

PES 174 Fundamentals of Football 1(Spec)
A course covering basic skills, techniques rules and strategies of football.

PES 176 Soccer 1(Spec)
Development of basic skills needed to play soccer and speedball.

PES 178 Power Volleyball 1(Spec)
Development of basic skills needed to play volleyball.

PES 186 Physical Fitness for Life 2(2-0)
Study of physical fitness concepts; development of a personal fitness profile and program. Recommended for everyone irrespective of age, sex, or skill and fitness level. Identical to PED 186. Credit may not be earned in more than one of these courses.

PES 190 Introduction to Sport Management 3(3-0)
Introduction to the field of sport management. Specific focus on the nature, scope, and significance of the industry. A survey of professional opportunities.

PES 203 Physical Education Program for Grades K-3 3(2-2)
Foundations for planning physical education for grades K-3. Studies of developmental characteristics of children grades K-3 are used to plan physical education programs.

PES 210 Mental Training for Sport Performance 3(3-0)
Development of the mental skills of self-concept, confidence, tension control, concentration, and visual imagery to allow students to perform to their potential in athletic competition.

PES 212 Applied Physiology and Kinesiology 3(2-2)
Emphasizes functional aspects of human performance and their application. Identical to HSC 212. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211 or equivalent, or permission of instructor.

PES 215 K-12 Physical Education Programming 3(3-0)
A course covering the foundations of physical education curriculum development and the steps and procedures involved with designing a K-12 program. Prerequisite: PES 103 (3), PES 186 (2), PES 115 (2).

PES 220 SCUBA II - Open Water 1(Spec)
The second part of SCUBA training required for open water certification. Prerequisite: PES 120.

PES 224 WSI-Swimming and Water Safety 3(2-2)
Methods and techniques for teaching swimming courses as well as emergency water rescue. There is a $10 aquatic fee. Prerequisite: Ability to swim 100 yards. Highly recommended: CPR and First Aid.

PES 235 Teaching Lifelong Activities 2(2-0)
An introduction to the basic skills needed to organize, demonstrate and teach selected lifelong noncompetitive physical activities. Equipment rental and property usage fees.

PES 244 Methods of Teaching Tumbling 2(2-0)
Methods and materials for teaching tumbling. Course includes concepts of safety and risk management. Prerequisite: PES 215 (either prerequisite or co-requisite).

PES 245 Gymnastics 3(Spec)
Methods and materials for teaching and spotting gymnastics.

PES 271 Basketball 2(2-0)
Methods and materials for the teaching of basketball. Prerequisite: PES 171; or intermediate skill.

PES 279 Sport First Aid 2(2-0)
First aid knowledge and skill tailored to the sport environment and the athletic coach. Prerequisites: HSC 205, 211; or concurrent enrollment.

PES 297 Special Topics in Physical Education and Sport 1-12(Spec)
Contains subject matter not included in courses currently listed in the Bulletin.

PES 300 Wilderness Experience for Leadership Development 3(2-2)
A course on leadership skills with applications for traditional and alternative learning environments which is taught in the context of a seven-day wilderness expedition.

PES 303 Physical Education Program for Grades 4-6 3(2-2)
Foundations for planning physical education for grades 4-6. Studies of developmental characteristics of children grades 4-6 are used to plan physical education programs. Prerequisite: PES 203 or permission of instructor.

PES 304 Youth Sports 2(2-0)
Comprehensive study of problems involved in organizing and coaching youth sports.

PES 308 Work Physiology 3(3-0)
Lectures and laboratories on basic principles of physiology of exercise. The basics of exercise, performance conditioning, and the human organism response to these conditions. Identical to HSC 308. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211 or equivalent, or permission of instructor.

PES 310 Physical Education for the Classroom Teacher 3(Spec)
An introduction to elementary physical education programming. This course integrates the concepts of total human physical development; basic motor development, physical fitness and human wellness. Prerequisite: EDU 107.

PES 311 Psychology of Coaching 3(3-0)
Emphasizes the application of psychological principles to the sports setting as they affect coaching styles, individual athletes, and athletic performance.

PES 315 Methods in Teaching Physical Education 3(3-0)
A broad spectrum of methods used in K-12 programs. Emphasis on micro- peer teaching and development of reflective teaching practices including assessment of teaching performance. Prerequisite: PES 215.

PES 318 Social, Historical, and Global Issues in Sport 3(3-0)
The globalization of sport as an institution, and society's impact on sport--an historical perspective. Students will examine the prevailing theories relative to sport sociology.

PES 319 Women and Sport 2(2-0)
An investigation of the motivational and social implications of women's participation in sport. Identical to WST 319. Credit may not be earned in more than one of these courses.

PES 320 Foundations of Sport Management 3(3-0)
The managerial fundamentals and principles applied to the sport industry: concepts and functions of management, organizational theories, human resources, integrated issues and trends. Prerequisites: PES 190 (C or better); minimum 56 credit hours.

PES 321 ARC Lifeguard Certification 3(2-2)
Skills and techniques in preventive lifeguarding at pools and non-surf beaches. There is a $10 aquatic fee. Prerequisites: swim 500 yards continuously; surface dive to 9 feet and recover a 10 pound diving brick; surface dive to 5 feet and swim underwater for 15 yards; tread water for 1 minute.

PES 338 Teaching Aerobics 2(2-0)
Present basic methods of teaching low impact aerobics, high impact aerobics and step aerobics. Prerequisites: PES 186, HSC 211 or HSC 214 and HSC 215. Recommended: Physician approval.

Descriptions of courses approved for the University Program appear in italic type.
PES 347 Organization and Administration of Special Olympic Games 3(3-0)
Study of the philosophy, organization, and administration of the Special Olympics, with emphasis on the Michigan Games. Class participants assume administrative roles for the annual games.

PES 348 Sports Officiating 1-6(Spec)
Theoretical and practical experience in officiating high school sports. Fall: football, basketball, soccer; Spring: track and field, baseball, softball, volleyball; other sports on demand.

PES 365 Teaching and Coaching Tennis 3(3-0)
Foundations in tennis teaching methods; stroke analysis, strategies, physical and mental skill development, coaching responsibilities, and philosophies.

PES 366 Coaching of Track and Field 2(2-0)
Theory and techniques of coaching track. Prerequisite: PES 167 or permission of instructor.

PES 368 Coaching and Officiating of Wrestling 2(1-2)
Theory and techniques for coaching wrestling.

PES 370 Coaching of Basketball 2(2-0)
Theory and techniques of coaching men’s basketball. Prerequisite: PES 170 or permission of instructor.

PES 372 Coaching of Baseball 2(2-0)
Theory and techniques for coaching baseball. Prerequisite: PES 172 or permission of instructor.

PES 374 Coaching of Football 2(2-0)
Theory and techniques of coaching football. Prerequisite: PES 174 or permission of instructor.

PES 375 Coaching Fastpitch Softball 2(2-0)
Theory and techniques of coaching fastpitch softball. Prerequisites: PES 172 or permission of instructor.

PES 376 Coaching Soccer 2(2-0)
Theory and techniques of coaching soccer. Prerequisites: PES 176 or permission of instructor.

PES 378 Coaching Volleyball 2(2-0)
Latest strategies and techniques in coaching volleyball. Prerequisite: PES 178 or permission of instructor.

PES 386 Special Physical Education 3(3-0)
Physical needs of the atypical individual, ameliorative effects of physical activity, school programs appropriate for exceptional children. Prerequisite: PES 315.

PES 387 Physical Education for the Physically Impaired 3(2-2)
Description of orthopedic and physical impairment. Interrelationships of physical, social, and emotional aspects. Development of activity experiences that are appropriate for specific impairments. Prerequisite: PES 386 or permission of instructor.

PES 390 Practicum in Physical Education and Coaching 1-3(Spec)
Offers the student an opportunity to assist in on-campus and off-campus experiences in the areas of sport, dance, intramurals or aquatics, etc. CR/NC only. Prerequisites: Permission of the department chairperson and PES 215 for students receiving elective credit for physical education major or minors.

PES 391 Independent Study 1-6(Spec)
Independent research on a special problem or problems. CR/NC only. Prerequisite: permission of department chairperson.

PES 393 Field Study in Sport Management 1-4(Spec)
Provides exposure via experiences in select sport related organizations. Students enroll in 1 to 4 credits (45-180 clock hours to meet course requirements). Prerequisite: PES 190 or prerequisite or corequisite: PES 320.

PES 395 Mid-Tier Field Experience 1(Spec)
Students observe an experienced physical educator and perform teaching functions under the direction of an elementary, middle, or high school teacher. CR/NC only. Prerequisites: PES 315, EDU 107, 45 hour Pre-Professional Experience.

PES 401 Fundamentals of Motor Learning 3(3-0)
Components of successful motor performance. Theories of learning, nervous system, methods of practice, teaching methodology, and various psychological concepts related to physical education and athletics.

PES 405 Physical Education Peer-Tutor Teaching 2(1-1)
Physical education majors plan for and teach selected sports skills to prospective physical education majors/minors seeking to pass required sports skills competencies. Prerequisite: PES 315.

PES 406 Evaluation in Physical Education and Sport 2(2-0)
Selection criteria, methods, and procedures used in determining physical fitness, skill competency, content knowledge, and health status. Interpretation of results by fundamental statistical procedures is also addressed. Prerequisite: PES 215.

PES 415 Planning, Teaching, and Assessing: Practical Applications 3(3-0)
Practical experience in programming, teaching, and assessing school children. Prerequisite: PES 406.

PES 478 Research for the Health Professions 2(2-0)
An introduction to methods of conducting research for the undergraduate student pursuing a profession in a health field. Prerequisites: ENG 101, ENG 201.

PES 483 Physical Education for the Mentally Impaired 3(2-2)
Planning of movement experience appropriate for the mentally impaired, neurologically impaired, and emotionally disturbed. Prerequisite: PES 386 or permission of instructor.

PES 485 Theoretical Foundations of Strength and Conditioning 3(3-0)
Theory and application of physiological, biomechanical, psychological components of physical performance needed to analyze, develop and implement strength and conditioning programs. NSCA standards and guidelines. Prerequisite: HSC 211 or HSC 215 and HSC 216.

PES 490 Practicum in Physical Education 1-3(Spec)
Opportunity to work in the area of classroom experience, extra class activities, interscholastics, clubs, and organizations. CR/NC only. Prerequisites: application to the department chairperson must be made in the semester prior to the one in which affiliation credit is earned.

PES 495 Senior Seminar in Physical Education 1(1-0)
A capstone experience, prior to student teaching, designed to integrate required physical education subject matter through case study, discussion, role playing, and organization of materials. CR/NC only. Prerequisite: minimum of 90 semester hours completed.

PES 499 Internship in Sport Management 2-12(Spec)
Provides practical capstone experience in a select sport related organization. Students enroll in 2 to 12 credits (a minimum of 400 clock hours) to meet course requirements. Prerequisites: Completion of PES 320 (C or better) and PES 393 (C or better), minimum 86 semester hours credit of undergraduate degree work, permission of the advisor.

PES 508 Education on Sexual Aggression for School/Community 3(Spec)
This course addresses the realities of sexual aggression, and how schools, corporations, and communities can educate their respective populations on these topics. Identical to HSC 508. Credit may not be earned in more than one of these courses. Recommended: PES 143 or permission of the instructor.

PES 550 Sport Fundraising 3(3-0)
Provides theoretical and practical applications of fundraising in the sport industry. Prerequisites: Minimum 86 credit hours (senior status); or graduate status.

PES 560 Principles and Foundations of Coaching 3(3-0)
Practical and relevant information that is appropriate for interscholastic coaches. Includes eligibility for Coaches Advancement Program (C.A.P.) certification. Prerequisites: 56 hours of course credit.

PES 564 Sport Governance: Ethics, Morals, and Values 3(3-0)
Investigation of how ethics, morals, and values influence the interpretation of laws and adherence to rules governing sport competition by athletes, coaches, and administrators. Prerequisite: Minimum 86 credits (senior status); or graduate status.

PES 570 Advanced Coaching in Basketball 2(2-0)
Study of most recent basketball trends and new techniques, methods, and philosophies in the coaching of basketball.

PES 572 Advanced Coaching in Baseball 2(2-0)
Coaching philosophy, new techniques and drills, practice organization, coaching duties, and strategy. Prerequisite: PES 372 or permission of instructor.

PES 574 Advanced Coaching of Football 2(2-0)
Study of recent changes and new trends in coaching of football.

PES 592 Independent Reading 1(Spec)
Exploration of one or more aspects of the field of physical education by individual study. Prerequisite: Permission of the department chairperson and instructor required.

PES 595 Issues in Physical Education and Sport 1-6(Spec)
Investigation of selective major issues in physical education and sport. Prerequisite: permission of the instructor. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

PES 602 Sport Management: Theory & Application 3(3-0)

PES 603 Administration of Sport and Physical Education 3(3-0)

PES 606 Motor Learning and Human Performance 3(3-0)

PES 607 Physical Education Curriculum Analysis 3(3-0)

PES 610 Philosophy of Physical Education and Sport 3(3-0)

PES 611 Psychology of Sport 3(3-0)

PES 615 Analysis of Teaching in Physical Education 3(3-0)
PHL 118 Moral Problems 3(3-0)
Study of basic moral problems and proposed solutions to problems associated with violence, oppression, prejudice, and sex. (Group I-A)

PHL 140 Introduction to Logic 3(3-0)
A study of modern formal logic, with the emphasis of the development of general procedures for deciding whether any argument is correct. Group II-B

PHL 190 The Nature of Science 3(3-0)
A study of the nature of science and the philosophical problems which arise in connection with the natural and/or social sciences.

PHL 200 History of Philosophy: Classical Period 3(3-0)
Survey of ancient Greek philosophy, with emphasis on Plato and Aristotle.

PHL 205 American Philosophy 3(3-0)
Historical study of the development and distinctive themes of American philosophy from colonial times to the present. Emphasis on Pierce, William James, and John Dewey.

PHL 218 Ethical Theory 3(3-0)
The following problems will be discussed: What is the good life? Is there any such thing as right and wrong? Can we justify our moral beliefs? (Group I-A)

PHL 225 Foundations of Cognitive Science 3(3-0)
Introduction to cognitive science, the problems it addresses, its evolving models of the mind, its interdisciplinary nature, and its broader ramifications. Identical to PSY 225. Credit may not be earned in more than one of these courses. (Group IV-A)

PHL 230 Philosophy of Religion 3(3-0)
The philosophical study of the meaning and justification of religious claims, including those about the nature and existence of God and human immortal- ity (Group I-A)

PHL 286 Philosophy In Literature 3(3-0)
Philosophical themes in selected literary works from ancient, medieval, modern, or contemporary sources.

PHL 297 Special Topics In Philosophy 1-12(Spec)
Study of areas in philosophy not included in courses currently listed in catalog.

PHL 300 History of Philosophy: Medieval Period 3(3-0)
Faith, reason and logic in the Moslem, Jewish, and Christian perspectives during the Middle Ages.

PHL 302 History of Philosophy: Modern Period 3(3-0)

PHL 305 Chinese Philosophy 3(3-0)
A survey of Chinese philosophy from the earliest times to the modern period, with emphasis on major thinkers and schools. (Group IV-B)

PHL 307 Existentialism: From Kierkegaard to Sartre 3(3-0)
Introduction to the problems, methods, and history of existential thinking through the main texts of contemporary existentialism.

PHL 318 Business Ethics 3(3-0)
Application of ethical principles to such business issues as fair competition, employer obligations, and business's responsibilities to stockholders, customers, employees, community, and society. This course is approved for offering in a distance learning format.

PHL 320 Theory of Knowledge 3(3-0)
Study of skepticism, the justification of beliefs, and theories of truth. Pre-requisites: PHL 100 or PHL 140.

PHL 325 Philosophy of Mind 3(3-0)
An attempt to explain the nature of the mind, by examining philosophical works on the mind-body problem and by surveying empirical results. Pre-requisite: one course in Group III-A. (Group IV-A)

PHL 340 Intermediate Logic 3(3-0)
First order quantifical theory is presented as a paradigm of formal theories. In terms of this, some metatheoretic notions are introduced. Pre-requisite: PHL 140.

PHL 345 The Civil Rights Movement 3(3-0)
Examines the civil rights movement from 1954 to 1980s; based on PBS series: Eyes on the Prize; Identical to SOC 345, PSC 325, REL 345. Credit may not be earned in more than one of these courses. Prerequisites: Any one of the following: HST 110, HST 111, HST 112, LAR 145, PSC 100, PSC 125, REL 140, SOC 100. (Group IV-C)

PHL 375 Philosophy of Social Science 3(3-0)
Comparison and analysis of the methods used in the social and natural sciences paying particular attention to the underlying philosophical assumptions. Prerequisites: one course in Group II or Group III in the University Program; or permission of instructor.

PHL 390 Philosophy of Science 3(3-0)
Study of problems that arise in a critical examination of science: explanation, theory, confirmation, law, measurement, scientific change. Prerequisites: PHL 114; one other course in Group II of the University Program; or permission of instructor.
PHY 397 Special Topics In Philosophy 1-12(Spec)
Study of areas of philosophy not included in courses currently listed in catalog. Prerequisite: 3 hours of philosophy or permission of instructor.

PHY 403 History of Philosophy: Nineteenth Century 3(3-0)
Analysis of philosophical texts selected from the work of thinkers such as Hegel, Marx, Kierkegaard, and Nietzsche. Prerequisites: at least three (3) credit hours in the history of philosophy, or permission of instructor.

PHY 404 History of Philosophy: Contemporary Period 3(3-0)
A study of some of the important philosophical trends since 1900. Prerequisite: at least three (3) credit hours in the history of philosophy, or permission of instructor.

PHY 405 Major Philosophers 3(3-0)
An in-depth study of a major philosopher. Prerequisite: At least one of the following: PHY 200, 300, 302, 403, 404; or permission of instructor.

PHY 421 Philosophy of Language 3(3-0)
Study of structure of language, relations between language and reality, and interrelations among language, thought, and culture. Prerequisite: PHY 100, PHY 140; or permission of instructor.

PHY 422 Political and Social Philosophy 3(3-0)
Study of the ethical and political problems confronting the individual and society.

PHY 426 Feminist Theory 3(3-0)
Examines the way women have been described by the Western philosophical tradition from its beginnings to the present and offers alternative analyses to this tradition. Identical to WST 426 and PSC 426. Credit may not be earned in more than one of these courses. Prerequisites: permission of instructor, or at least junior standing and either one course in philosophy or one of the following courses: PST 275, PST 326, PST 371, PST 373, or PST 378.

PHY 450 Phenomenology a Survey 3(3-0)
The study of the phenomenological method, its origin in the works of Brentano and Husserl, and its application in the physical and social sciences. Prerequisite: PHY 100 or permission of instructor.

PHY 480 Philosophy of the Arts 3(3-0)
Studies in the experience of arts and discussion of traditional and contemporary esthetics.

PHY 490 Senior Seminar 3(3-0)
A senior seminar for philosophy majors. Prerequisites: senior status; or junior status with permission of instructor; at least 21 hours in philosophy.

PHY 497 Special Topics in Philosophy 1-12(Spec)
Study of areas in philosophy not included in courses currently listed in catalog. Prerequisite: at least 3 credits in philosophy; permission of instructor.

PHY 498 Independent Research 1-6(Spec)
Prerequisite: permission of instructor.

PHY 518 Professional Ethics 3(3-0)
An examination of the theories and methods used in ethical decision-making, with application to common issues in law, journalism, technology, research, education, and the health professions. Prerequisites: junior status or permission of instructor.

PHY 525 Philosophical Problems of the Self 3(3-0)
Advanced study of central philosophic questions about persons, such as mind-body problem, the nature of personal identity, and the freedom of the will. Prerequisites: PHY 100 or permission of the instructor.

PHY 597 Special Topics In Philosophy 1-12(Spec)
Study of areas in philosophy not included in courses currently listed in catalog. Prerequisite: permission of instructor.

PHY 598 Readings in Philosophy 1-6(Spec)
Selected studies of one or more philosophic works. Prerequisite: permission of instructor.

PHY 599 Independent Study 1-6(Spec)
Individual study in an area not covered by regular courses. Prerequisite: Prior permission of the instructor must be obtained.

PHY 130 College Physics I 4(4-0)
Mechanics, heat, kinetic theory, and sound. The mathematics used is algebra and trigonometry. The sequences PHY 130-131, PHY 170-171 satisfy minimum requirements for medical and dental schools. Prerequisites: MTH 106 or equivalent. (Group II-B)

PHY 131 College Physics II 4(4-0)
A continuation of PHY 130 that covers the topics of electricity, magnetism, optics and modern physics. Prerequisite: PHY 130.

Physics (PHY)
See the Department of Physics for more information.

PHY 100 Conceptual Physics 3(3-0)
An exploration of physical concepts; their social and philosophical implications; and the utility and limitations of physics for solving problems in the modern world. The mathematical level will be that of beginning high school algebra. Not intended for potential science majors. This course is approved for offering in a distance learning format. (Group II-B)

PHY 110 Physics of Sports 3(3-0)
For students interested in the physics of motion. Covers velocity, acceleration, force and momentum, as related to physical activity. (Group II-B)

PHY 127 Table Top Physics 10(2-2)
Laboratory experience for students in PHY 100, PHY 110, or PHY 105. Hands-on group laboratory exercises investigate the nature of physics. Satisfies Group II laboratory requirements. Pre or co-requisites: PHY 100, PHY 110, or PHY 105. (Group II-B)

PHY 130 College Physics I 4(4-0)

PHY 131 College Physics II 4(4-0)
PHY 145 University Physics I 4(4-0)
- Normally the first physics course for majors and minors. Mechanics of single and many-particle systems, conservation laws, statistical concepts, and gravitational interaction. Corequisites: MTH 136 (or MTH 132) or equivalent. (Group III-A)

PHY 146 University Physics II 4(4-0)
- Electromagnetic interaction, electrical circuits, electromagnetic radiation, and optics. Not open to those with credit in PHY 131. Prerequisite: PHY 145. Corequisite: PHY 137 (or MTH 133) or equivalent.

PHY 170 College Physics Laboratory I 1(0-2)

PHY 175 University Physics Laboratory I 1(0-2)
- Laboratory experience for PHY 145. Introduction to experimental techniques and the treatment of experimental data. Satisfies Group II laboratory requirement. Corequisite: PHY 145. (Group II-B)

PHY 176 University Physics Laboratory II 1(0-2)
- Laboratory experience for PHY 146. Introduction to electrical measurements and instrumentation. Introduction to techniques of optical measurements. Prerequisite: PHY 175. Corequisite: PHY 146.

PHY 220 Engineering Mechanics: Statics 3(3-0)
- Static force systems in two and three dimensions. Composition and resolution of forces; application of the principles of equilibrium; calculation of moments; analysis of contact forces. Does not count toward a physics major or minor. Corequisites: PHY 145; MTH 137; or MTH 133, MTH 223.

PHY 231 Electronic Instrumentation I 1(0-3)
- Measuring instruments and techniques encountered in an electronics laboratory. An understanding of basic electric circuits is assumed. Prerequisites: PHY 146, PHY 176.

PHY 233 Network Analysis I 3(3-0)
- Introduction to analysis of linear circuits. Kirchhoff's laws; node-voltage and mesh-current methods; Thévenin and Norton equivalent circuits; steady-state response to sinusoidal sources; power. Prerequisites: Corequisites: PHY 145, MTH 137 or both MTH 133, MTH 223.

PHY 234 Network Analysis II 3(3-0)

PHY 247 Introduction to Modern Physics 4(4-0)

PHY 277 University Physics Laboratory III 1(0-3)

PHY 312 Introduction to Mathematical Physics 3(3-0)

PHY 313 Intermediate Theoretical Physics II 3(3-0)
- A continuation of PHY 312 using advanced techniques. Prerequisite: PHY 312 or permission of instructor.

PHY 322 Intermediate Mechanics 3(3-0)
- Newtonian mechanics of particles and systems of particles. Conservation theorems, gravitation, oscillations, Lagrangian and Hamiltonian dynamics, central force motion, two-particle collisions. Prerequisites or corequisites: PHY 247; MTH 233, MTH 334.

PHY 332 Electricity and Magnetism 3(3-0)
- Electrostatic fields in vacuum and in dielectrics, magnetic fields associated with constant and variable currents, magnetic materials, Maxwell's equations. Prerequisite: PHY 247; MTH 233, MTH 334.

PHY 442 Introduction to Quantum Theory 4(4-0)
- Introduction to quantum theory: Schroedinger equation, operators, angular momentum, harmonic oscillator, atomic hydrogen, perturbation theory, scattering theory, identical particles, radiation. Some applications will be considered. Prerequisites: PHY 312, PHY 322, PHY 332.

PHY 450 Thermal Physics 3(3-0)
- Introduction to equilibrium thermodynamics and elementary statistical mechanics. Prerequisites: PHY 312, PHY 322.

PHY 490 Independent Study 1-3(Spec)
- Individual study in an area not covered by regular courses. Prerequisite: Open to physics majors or minors with at least junior standing who have obtained permission of the instructor.

PHY 491 Senior Physics Project 3(Spec)
- Capstone experience for physics majors. Students enroll during their penultimate semester on campus. Project advisor must be selected before enrolling. Prerequisites: PHY 312, 322, 332, 578. Prior permission of instructor.

PHY 505 Teaching Chemistry and Physics in the Secondary School 3(3-0)
- Course surveys materials for the teaching of secondary chemistry and physics. For students on teaching curricula, the course must be completed prior to student teaching. Identical to CHM 505. Credit may not be earned in more than one of these courses. Prerequisites: junior standing; CHM 132 or CHM 161; PHY 131 or PHY 146 or equivalent.

PHY 507 Field Experience in Teaching Chemistry/Physics 1(Spec)
- Supervised experience in high school chemistry and/or physics classes. Experience will include observation, participation in instruction, and critical analysis of the experience. Identical to CHM 507. Credit may not be earned in more than one of these courses. CR/NC only. Corequisites: CHM/PHY 505 or equivalent.

PHY 517 Computational Physics 3(3-0)
- Introduction to standard numerical techniques applied to problems in physics, including numerical differentiation and integration, systems of differential equations, eigenvalues and eigenvectors, and Monte-Carlo simulations. Prerequisites: PHY 512, PHY 322, and PHY 332. Co-requisite or prerequisite: PHY 442. Recommended: A basic knowledge of a programming language such as FORTRAN.

PHY 552 Nuclear Physics 3(3-0)
- Atomic structure, nuclear reactions, radioactive decay, nuclear structure, fission, cosmic radiation and applications of radiotrac. Prerequisite: PHY 532.

PHY 553 Electromagnetic Waves 3(3-0)
- Atomic and molecular structure, energy levels of electrons, and binding energies in molecules and solids. Prerequisites: PHY 442 and PHY 332.

PHY 554 Optics 3(3-0)
- Geometrical and physical optics, electromagnetic theory of light, interference and diffraction from standpoint of Huygens’ principle, Fourier formalism, polarized light, principles and applications of lasers. Prerequisites: PHY 532.

PHY 556 Solid State Physics 3(3-0)
- Atomic, molecular and crystal structure, energy levels of electrons, and binding energies in molecules and solids. Prerequisites: PHY 442. Co-requisites: PHY 450.

PHY 578 Experimental Physics 2-4(Spec)
- Selected experiments utilizing the techniques of modern experimental physics. May be retaken for up to 4 hours of credit. Prerequisite: PHY 277 or equivalent.

PHY 580 Special Topics 1-9(Spec)
- Topics not ordinarily covered in regular courses. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

PHY 614 Methods of Theoretical Physics 3(3-0)

PHY 619 Continuing Registration for Final Research Project 1(1-0)

PHY 624 Advanced Mechanics 3(3-0)

PHY 634 Advanced Electricity and Magnetism 3(3-0)

PHY 643 Quantum Mechanics I 3(3-0)

PHY 644 Quantum Mechanics II 3(3-0)

PHY 655 Seminar: Contemporary Physics 1-4(Spec)

PHY 780 Topics in Physics 1-9(Spec)

PHY 790 Independent Study 1-3(Spec)

PHY 798 Thesis 1-6(Spec)

Political Science (PSC)

See the Department of Political Science for more information.

PSC 100 Introduction to Political Science 3(3-0)
- Historical and theoretical concepts of political science, required for all political science majors and minors. Does not substitute for PSC 105. (Group III-B)

PSC 101 Political Behavior 3(3-0)
- Focus is on the elements of individual political behavior. Includes socialization; political involvement, commitment and participation; voting behavior; and political opinion and personality. (Group III-A)

PSC 105 Introduction to American Government and Politics 3(3-0)
- Focuses both on the formal institutions of government and how politics actually works in the United States. Recommended prior to taking any other political science courses in American Political Institutions. This course is approved for offering in a distance learning format. (Group III-B)
PSC 125 - African-American Politics 3(3-0)  
Examines issues of political economy, political participation, political efficacy and alienation, Black Nationalism and Pan-Africanism. (Group IV-C)  

PSC 150 World Politics 3(3-0)  
Introductory conceptual analysis of international politics: North-South relations; major regions; and major areas of tension in Latin America, Africa, Middle East, and Asia. This course is approved for offering in a distance learning format. (Group III-B)  

PSC 151 The U.S. and the World 3(3-0)  
To prepare the student to confront, in a systematic fashion, the issues to be faced as a citizen of the United States and as a member of the global society. (Group III-B)  

PSC 210 Introduction to Public Administration 3(3-0)  
Provides a broad understanding of basic concepts and principles of public administration, including role, structure, and functions of public agencies and how they operate. Prerequisite: PSC 105 or PSC 106 or permission of instructor. This course is approved for offering in a distance learning format.  

PSC 235 Politics and Personality 3(3-0)  
Study of politics through an analysis of the psychological roots of human behavior and of the personalities of politicians.  

PSC 242 Introduction to Comparative Politics 3(3-0)  
An examination of relevant theories, concepts, and methods of comparative political analysis and application of these in the study of selected political systems. (Group III-B)  

PSC 261 State and Local Government 3(3-0)  
Structure and functions of state, county, and city governments, with emphasis on policy issues. Michigan governments are used for illustrations and examples. (Group III-B)  

PSC 275 Great Political Thinkers 3(3-0)  
Discussion of key issues in the history of Western political thought, such as freedom, justice, equality, and power. Authors include Plato, Aristotle, Machiavelli, Marx. This course is approved for offering in a distance learning format. (Group I-A)  

PSC 280 Introduction to Empirical Methods of Political Research 3(3-0)  
Empirical political research techniques including the scientific method, measurement, descriptive and inferential statistics, literature reviews, data collection, computer assisted data analysis, and research reporting. This course is approved for offering in a distance learning format. Prerequisites: PSC 100 or PSC 105; one course in political science.  

PSC 300 Michigan Politics and Elections 3(3-0)  
Analysis of Michigan's election campaigns with focus on organization, strategies and tactics. Emphasis on election consequences for state's policy leaders, opinion, interests and government. Prerequisite: PSC 105 or PSC 261  

PSC 301 Law and Policy in Michigan State Government 3(3-0)  
Analysis of Michigan's legislative process, policy issues, and state government politics. Emphasis on origination, shaping, negotiating, and content of state policy. Prerequisite: PSC 105 or PSC 261.  

PSC 305 Midtier Teaching in Political Science 2(1-2)  
The mid-tier experience provides observations and small-group instructional opportunities for students seeking secondary certification in political science. Course includes both campus instruction and field work. GR/NC only. Prerequisites: completion of EDU 107; 12 hours of political science.  

PSC 313 Budgetary Processes in the United States 3(3-0)  
Study of the determination and execution of fiscal policies in public agencies with special attention to preparation, authorization, and execution of government budgets.  

PSC 320 The American Legislative Process 3(3-0)  
Analysis of the legislative process, studying formal and informal devices used by legislative bodies in determining policy. Primary emphasis is on the United States Congress. Prerequisites: PSC 105 or permission of instructor.  

PSC 321 The American Chief Executive 3(3-0)  
Development of the executive office of the United States, with emphasis on the Presidency.  

PSC 322 Judicial Process and Politics 3(3-0)  
Focuses on the American judicial process, including federal and state courts, roles of judges and other actors, civil and criminal justice processes, and judicial policymaking. Recommended: PSC 100 or PSC 105.  

PSC 323 American Parties and Politics 3(3-0)  
Analysis of American political parties as instruments of democratic government. Their structures, functions, and organizations, with emphasis on nomination, campaigns, and elections.  

PSC 325 The Civil Rights Movement 3(3-0)  
Examines the civil rights movement from 1954 to 1980s; based on PBS series: Eyes on the Prize. Identical to PHL 345, REL 345, SOC 345. Credit may not be earned in more than one of these courses. Prerequisites: Any one of the following: HST 110, HST 111, HST 112, LAW 145, PSC 100, PSC 125, REL 140, SOC 100. (Group IV-C).  

PSC 326 Women and Politics 3(3-0)  
This course will look primarily at empirical studies of women's role in politics in the U.S. but also in other contexts. Identical to WST 326. Credit may not be earned in more than one of these courses. (Group IV-A)  

PSC 327 Lobbying and Interest Group Behavior 3(3-0)  
The reasons for and the methods of lobbying constitute the major subjects. Also includes the identification of different lobbyists, their goals, behavior, and organizations.  

PSC 328 Campaigns and Elections 3(3-0)  
Study of campaigns and elections in the United States, including candidate emergence and nominations, campaign organization and strategy, election results, and electoral reform.  

PSC 340 African Political Systems and Processes 3(3-0)  
Comparative survey of selected African political systems with focus upon Sub-Saharan Africa. (Group IV-B)  

PSC 341 Comparative Politics: Eastern Europe 3(3-0)  
Comparative analysis of selected Eastern European states, including Poland, Czech Republic, Hungary, former Yugoslavia, Romania, Bulgaria. Identical to EUR 303. Credit may not be earned in more than one of these classes. (Group IV-B)  

PSC 342 Comparative Immigration Politics 3(3-0)  
Politics, history, and economics of immigration and immigrant-native relations in the United States (including Michigan) and selected countries. Particular focus on causes of nativism.  

PSC 343 Southeast Asian Political Systems and Processes 3(3-0)  
The impact of culture on politics in several countries of Southeast Asia, including Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Indonesia, Singapore, Brunei and Philippines. (Group IV-B)  

PSC 344 East Asian Political Systems and Processes 3(3-0)  
Emphasis on selected states in East Asia. East Asia consists of China, Japan, and Korea. (Group IV-B)  

PSC 345 Middle Eastern Political Systems 3(3-0)  
Comparative analysis of the politics of selected Middle Eastern states, including Egypt, Iraq, Saudi Arabia, Algeria, Jordan, Morocco, Iran, Israel and Turkey. This course is approved for offering in a distance learning format. (Group IV-B)  

PSC 346 The Politics of Islam 3(3-0)  
Political examination of Islam's revival as a political doctrine that poses a unique reading of modernity's political economy.  

PSC 347 Comparative Politics: Western Europe 3(3-0)  
Comparative analysis of selected European states, including Great Britain, France, Italy and Germany. (Group IV-B)  

PSC 348 Latin American Political Systems 3(3-0)  
A comparative analysis of selected Latin American political systems, analyzing the impact of authoritarianism, international intervention, and democratization. (Group IV-B)  

PSC 349 Panama: Exploring Politics and Society in a Central American Nation 3(3-0)  
A short term (three weeks) faculty-led study abroad program exploring the politics, society, and culture of Panama. Prerequisites: complete minimum of 25 credits of university course work and a minimum 2.5 GPA. (Group IV-B)  

PSC 351 International Relations 3(3-0)  
Classical and contemporary theories of international relations. War, terrorism, and genocide. International law and organizations. Global economic and world poverty. Ethics in international relations.  

PSC 352 US - Latin American Relations 3(3-0)  
An examination of the political, military, and economic relations between Latin America and the United States.  

PSC 353 Model United Nations 3(3-0)  
Introduces students to the activities of the United Nations and the protocol and procedures of diplomacy in order to participate in United Nations simulations. Prerequisite: 26 credits completed or permission of instructor.  

PSC 354 Advanced Model United Nations 1(1-0)  
Allows advanced students to further their knowledge of the protocol and procedures of diplomacy and participate in United Nations simulations. Prerequisite: PSC 353  

PSC 371 American Political Thought 3(3-0)  
Selective survey of dominant trends in American political thought from the revolutionary era to the present. This course is approved for offering in a distance learning format. (Group I-A)  

PSC 372 American Radical Thought 3(3-0)  
Study and analysis of the main social revolutionary ideologies of the left during the past 100 years in the United States.  

PSC 373 American Individualism 3(3-0)  
Integrates methods of social sciences and humanities in developing interdisciplinary analyses of the history, content, variety and normative implications of American Individualism. (Group IV-A)
PSC 375 Socialism, Fascism, and Liberalism 3(3-0)
Political and psychological analyses of socialist, fascist, and liberal ideolo-
gies. (Group IV-A)

PSC 378 Modern Democratic Theory 3(3-0)
Exploration of modern arguments for and against liberal democracy and
discussion of the future of liberal democracy in the U.S. and elsewhere.
(Group I-A)

PSC 390 Independent Study 1-6(Spec)
Directed reading or research on an approved topic. Prerequisite: Open to
students not on academic probation and who shall have completed 12 se-
mester hours in political science, with the permission of the instructor.

PSC 395 Internship in Government and Politics 1-12(Spec)
An integrative learning experience where students apply textbook knowl-
edge to governmental and public affairs work experience. CR/NC only. Pre-
requisite: permission of instructor.

PSC 398 Special Topics in Political Science 1-9(Spec)
Consideration of subject manner not included in courses currently listed in
catalog. May be taken more than once.

PSC 405 Methods for Teaching Political Science 3(3-0)
Lesson plans, objectives evaluations, organization and methods of teach-
ing government and politics. Three weeks of mid-tier experiences. Prereq-
usites: completion of at least 15 hours of political science course work; at
least junior status; or permission of instructor.

PSC 411 Public Sector Human Resources and Organization Theory
3(3-0)
Seminar on human resource management (personnel administration) and
organizational theory in public agencies including hiring, developing, and
rewarding employees; and structuring and designing organizations. Prerequi-
sites: PSC 105 or PSC 210 and 56 semester hours completed. This course
is approved for offering in a distance learning format.

PSC 421 Constitutional Law: Powers of Government 3(3-0)
Examines major U.S. Supreme Court decisions concerning judicial review,
separation of powers, federalism, fiscal and commerce powers, and eco-
nomic liberties.

PSC 422 Constitutional Law: Civil Rights and Liberties 3(3-0)
Examines major U.S. Supreme Court decisions regarding the First Amend-
ment, criminal procedure, racial and gender equality, and the right to privacy.

PSC 426 Feminist Theory 3(3-0)
Examines the ways women have been described by the Western philo-
sophical tradition from its beginnings to the present and offers alternative
analyses to this tradition. Identical to WST 426 and PHL 426. Credit may
not be earned in more than one of these courses. Prerequisites: permission
of instructor, or at least junior standing and either one course in philosophy
or one of the following courses: PSC 275, PSC 326, PSC 371, PSC 373, or
PSC 376.

PSC 453 American Foreign Policy 3(3-0)
Analyzes the external interests of the United States and how they are
pursued.

PSC 514 American Public Policy Making 3(3-0)
This course serves to integrate political institutions and levels of gov-
ernment in terms of policy development and implementation. Prerequisites: PSC
105 or equivalent or graduate standing This course is approved for offering in
a distance learning format.

PSC 515 Comparative Public Policy 3(3-0)
Techniques of cross-national and other comparative policy analysis applied
to social and economic policies of industrialized nations, especially Western
Europe.

PSC 516 Environmental Politics and Policy 3(3-0)
Analysis of relationships between politics and public policy in the environ-
mental arena. Emphasis upon policy making process, political strategies,
and alternative decision modes. Prerequisites: completion minimum of 56
credit hours of university course work, or permission of instructor.

PSC 520 American National Government and Politics 3(3-0)
This course will examine the major theoretical frameworks used in the
study of American national government and politics and survey current re-
search in the area. Prerequisites: a minimum of 9 hours of political science
coursework, including PSC 105, or permission of instructor.

PSC 522 Regulatory Processes and Administrative Law 3(3-0)
Survey of the principles of administrative law and the politics of the U.S.
regulatory processes. This course is approved for offering in a distance learn-
ing format.

PSC 540 Cultural Heritage and Politics of Eastern Europe 3(3-0)
Comparative study of political systems of Soviet bloc countries and Yugo-
slavia.

PSC 551 Seminar in International Relations 3(3-0)
Significant aspects of international relations on the basis of timeliness and
importance. This course is approved for offering in a distance learning format.

PSC 555 International Law I 3(3-0)
Processes of international law; role in international relations and organ-
izations; effects on individual rights in peacetime through cases, treaties,
customs, and legal rules. This course is approved for offering in a distance
learning format.

PSC 556 International Law II 3(3-0)
This course supplements the study of the international legal regime examin-
ed in International Law I by focusing upon the newly established interna-
tional criminal law regime. Recommended: PSC 555

PSC 561 American State Government and Administration 3(3-0)
Political, legislative, executive, and judicial processes of American state
government, with emphasis on the way they affect public policies in the
states.

PSC 563 Politics and Policy in Urban Communities 3(3-0)
Examination of large and small city governments. Their political process,
behavior and citizen participation. Emerging public policies and intergov-
ernmental cooperation.

PSC 565 Managing Modern Local Government 3(3-0)
Covers all aspects of local government. Simulated problem solving in local
administration. Recommended: A course in local government.

PSC 566 Intergovernmental Relations in the United States 3(3-0)
An analysis of the administrative and fiscal relationships between the
national, state, and local governments, with emphasis on grants-in-aid and
revenue sharing.

PSC 583 Survey Research 3(3-0)
Development and utilization of quantitative data, with emphasis on behav-
ioral research, public opinion polling, and statistical analysis.

PSC 585 Computer Applications for Public Administrators 3(3-0)
To teach public administrators applied sector information systems, and
the roles that computers play in the management of information in a de-
mocracy. Prerequisites: undergraduate computer skills, such as CPS/BIS
106 and CPS/BIS 107; PSC 210; or permission of the instructor.

PSC 590 Independent Study 1-6(Spec)
Prerequisite: Open to majors or minors who have completed at least 12
hours of political science with a B average; arrange with department chair-
person and instructor.

PSC 598 Special Topics in Political Science 1-12(Spec)
Subject matter not included in courses currently listed in Bulletin.

PSC 610 Foundations of Public Administration 3(3-0)

PSC 615 Politics and Regulation of Health Care Policy 3(3-0)

PSC 619 Continuing Registration for Final Research Project 1(1-0)

PSC 624 Problems and Processes of International Development I 3(3-0)

PSC 651 Comparative Political & Economic Systems 3(3-0)

PSC 680 Methodology of Political Research 3(3-0)

PSC 710 Seminar on Public Bureaucracies and Policy Formation 3(3-0)

PSC 711 Public Personnel Administration Practice 3(3-0)

PSC 712 Implementation and Reform of Public Programs 3(3-0)

PSC 713 Public Budgeting and Finance 3(3-0)

PSC 714 Program Analysis and Evaluation 3(3-0)

PSC 740 Seminar in Comparative Politics 3(3-0)

PSC 761 Seminar in American State Government 3(3-0)

PSC 770 Seminar in Political Theory 3(3-0)

PSC 773 Public Administration and Public Interest 3(3-0)

PSC 774 Strategic Planning for Public/Non-Profit Organizations 3(3-0)

PSC 775 Organization Theory in Public Administration 3(3-0)

PSC 780 Research in Public Administration in Political Science 3(3-0)

PSC 781 Techniques of Political Research 3(3-0)

PSC 785 Strategic Leadership 3(3-0)

PSC 790 Advanced Readings I 1-6(Spec)

PSC 795 Internship in Public Administration 1-6(Spec)

PSC 796 Applied Research in Public Administration 3(3-0)

PSC 798 Thesis 1-6(Spec)

Psychology (PSY)

See the Department of Psychology for more information.

PSY 100 Introduction to Psychology 3(3-0)
Survey of concepts, methods, and fields of psychology. This course is ap-
proved for offering in a distance learning format. (Group III-A)

PSY 200 Special Issues: Title to be listed 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum.
Prerequisites: permission of instructor.
PSY 211 Introduction to Psychological Statistics 3(3-0)
Basic descriptive and inferential statistics are considered, including mea-
sures of central tendency and variability, the normal distribution, the t-test,
correlation, and chi-square. Prerequisite: PSY 100. This course is approved for
offering in a distance learning format.

PSY 220 Developmental Psychology 3(3-0)
The development of human behavior from conception through old age
will be examined in terms of psychological, social, and biological processes.
Prerequisite: PSY 100. This course is approved for offering in a distance
learning format.

PSY 225 Foundations of Cognitive Science 3(3-0)
Introduction to cognitive science, the problems it addresses, its evolving
models of the mind, its interdisciplinary nature, and its broader ramifications.
Identical to PHL 225. Credit may not be earned in more than one of these
courses. (Group IV-A)

PSY 250 Abnormal Psychology 3(3-0)
Nature, causes, and treatment of mental disorders. Prerequisite: PSY
100. This course is approved for offering in a distance learning format.

PSY 285 Research Methods 3(3-0)
An introduction to the various research methodologies in psychology. Pre-
requisites: PSY 100; PSY 211 or STA 282 or STA 382 with a grade of C or
better. This course is approved for offering in a distance learning format.

PSY 301 Sports Psychology 3(3-0)
The relationship between psychology and sport from the perspective of
theory, research, and practice. The use of psychological techniques to maxi-
mize performance. Prerequisite: PSY 100.

PSY 310 Psychological Testing 3(3-0)
Theory and foundations of testing with some emphasis on the interpreta-
tion of test results. Examination of a variety of different tests. Prerequisite:
PSY 100.

PSY 322 Psychology of Infancy and Early Childhood 3(3-0)
Human development from conception through preschool years. Empha-
sis on research relevant to understanding development and implications
of research for preventing and lessening common developmental problems.
Prerequisites: PSY 220 or HEV 100 or EDU 280.

PSY 324 Childhood and Adolescence 3(3-0)
Psychological development from childhood through the college years. Main
topics are physiological, social, and cognitive development. Prerequisites:
PSY 220 or HEV 100 or EDU 280. This course is approved for offering in a
distance learning format.

PSY 325 Psychology of Aging 3(3-0)
Empirical approach to understanding changes and continuities in physi-
ological, cognitive, perceptual, behavioral, and social functioning in later life.
Prerequisites: PSY 220 or signed Gerontology Minor

PSY 330 Social Psychology 3(3-0)
Empirical approach to understanding individual social behavior. Deals with
the person and the social environment with a focus in attitudes, interpersonal
behavior, and group processes. Prerequisite: PSY 100. This course is ap-
proved for offering in a distance learning format.

PSY 332 Evolutionary Psychology 3(3-0)
Examines human behavior from an evolutionary perspective. Topics in-
clude: evolutionary theory, sex and mating, child rearing, social relationships,
and applications to health and work. Prerequisites: PSY 100 OR ANH 171
required; BIO 151 recommended. (Group IV-A)

PSY 334 Psychology of Women 3(3-0)
Explores psychological issues pertaining specifically to women in the fol-
lowing areas: affective and cognitive functioning, personality theories, adult
role behaviors, sexuality and physical and mental health. Identical to WST
334. Credit may not be earned in more than one of these courses. This
course is approved for offering in a distance learning format. (Group III-A)

PSY 336 Industrial/Organizational Psychology 3(3-0)
The psychology of work and organizations. Introduction to the use and ap-
lication of psychology in the workplace. Prerequisite: PSY 100. This course
is approved for offering in a distance learning format.

PSY 337 Psychology of Advertising 3(3-0)
Psychological principles and concepts applied to advertising and selling,
promotion, buyer attitudes, consumer behavior, psychological measurement,
and prediction in advertising. Prerequisite: PSY 100.

PSY 340 Studies in Personality 3(3-0)
Survey of major theories and principles used to describe/explain the indi-
vidual. Primary focus will be on evaluating and testing theories via research
findings. Prerequisite: PSY 100. This course is approved for offering in a
distance learning format.

PSY 350 Clinical Interviewing and Counseling 3(3-0)
Theory and practice of psychological interviewing and counseling. Recom-
mended: PSY 220, PSY 250. Prerequisites: PSY 100.

PSY 370 Applied Behavior Analysis 3(3-0)
Survey of developments in behavior alteration. Prerequisite: PSY 100.

PSY 379 Health Psychology 3(3-0)
Study of the relationship between psychological variables and health,
including physiological factors, psychological influences affecting health,
behavior and chronic disease, psychology's contribution to health promo-
Prerequisite: PSY 100.

PSY 382 Perception 3(3-0)
Perception as the result of psychological and physiological processes.
Some of the topics covered are vision, audition, pain perception, illusions,
pattern recognition and perceptual development. Prerequisites: PSY 100;
A Group II course; competency in written English and mathematics. (Group
IV-A)

PSY 383 Learning and Memory 3(3-0)
Introductory to the major theoretical-empirical views that characterize the
area of learning and memory. This course is approved for offering in a dis-
tance learning format. Prerequisite: PSY 100.

PSY 384 Behavior Analysis 3(2-2)
Study of empirically-derived principles of learning and their application
to the treatment of the developmentally disadvantaged, and to parenting,
education, therapy, and self-management. Students will demonstrate an
understanding of behavior analysis in an animal laboratory. Prerequisite:
PSY 100.

PSY 385 Applications of Research Methods 3(3-0)
Second course in psychological research methodology, both experimen-
tal and non-experimental. Students design, execute, interpret, and report
psychological research. Prerequisites: PSY 285 with a grade of C or better;
ENG 201 or ENG 303 or equivalent.

PSY 387 Behavioral Neurosciences 3(3-0)
Overview of the neurological processes underlying organismic behavior.
Surveys neurological explanations of sensation, movement, motivation,
emotion, sleep, learning, neurological disorders, recovery mechanisms.
Prerequisites: One of the following: PSY 100, BIO 101, BIO 105, BIO 110, BIO
151, HSC 211 (Group IV-M)

PSY 400 Special Issues: Title to be listed 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum.
Prerequisite: permission of instructor.

PSY 409 History of Psychology 3(3-0)
The historical roots of psychology and their present day manifestations are
analyzed. Emphasis is on the more direct antecedents of current thought
and practice. Prerequisites: PSY 285, PSY 383.

PSY 450 Clinical Psychology 3(3-0)
Introduction to the diagnostic, therapeutic, and research activities of the
clinical psychologist. Prerequisite: PSY 250 or equivalent.

PSY 459 Stress 3(3-0)
Defines stress and how to measure it, evaluates evidence about causes/
correlates of stress, and introduces strategies to deal with stress. This
course is approved for offering in a distance learning format. Prerequisites:
PSY 100 or permission of instructor.

PSY 487 Neuroscience Seminar 1-2(Spec)
Analysis of current research in specified areas of neuroscience; critiquing
and discussing primary literature and the students' current research relat-
ing to specific topics. Students will repeat this course for a maximum of 2
credits. Identical to BIO 467. Credit may not be earned in more than one of
these courses. Prerequisites: signed neuroscience major and prior or
concurrent neuroscience research experience through BIO 403 or PSY
496 (or equivalent).

PSY 496 Directed Research 1-6(Spec)
For students who desire to investigate a research problem in psychology.
Prerequisite: must file written proposal approved by faculty sponsor in de-
dpartmental office prior to registration.

PSY 497 Independent Study 1-4(Spec)
For students who accept responsibility for studying a psychological prob-
lem on their own. Prerequisite: must file written approval by faculty sponsor
in departmental office prior to registration.

PSY 498 Undergraduate Honors Thesis 3(Spec)
The student, with guidance from two faculty sponsors, researches and
writes an undergraduate thesis. Prerequisites: PSY 211 or STA 282 or STA
382 with a grade of B or better; PSY 285 with a grade of B or better; overall
GPA of 3.0.

PSY 500 Special Issues: Title to be listed 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum.
Prerequisites: permission of instructor.

PSY 501 Workshop: Title to be listed 1-18(Spec)
Study of problem-oriented subjects for persons already working in psycho-
logical services with the intent of continuing their professional growth.
Prerequisite: permission of instructor.

PSY 502 Teaching Assistant in Psychology 1-3(Spec)
Development of practical skills for effective teaching of psychology. No
more than 3 hours of PSY 502 may be applied to a student’s psychology
major or minor. Prerequisite: permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
PSY 503 Principles and Applications of Sign Language and Manual Systems 3(3-0)
Focused study in the principles of the application of signed and manual communication with Deaf and other populations for educational, clinical and human service settings.

PSY 510 Principles of Psychological Measurement 3(3-0)
Problems and procedures in scaling and in correlational methods related to testing reliability, validity, and measurement error. Prerequisite: PSY 310, PSY 211 or equivalents.

PSY 511 Statistics in Psychology 3(3-1)
An extension of topics introduced in PSY 211, with emphasis upon hypothesis testing and statistical inference. Prerequisite: PSY 211 or equivalent.

PSY 531 Group Dynamics 3(3-0)
Conceptual and empirical background in the dynamics of face-to-face groups and related interpersonal areas. Emphasis is cognitive-theoretical rather than experiential. Prerequisite: PSY 330 or equivalent.

PSY 533 Psychology of Racism 3(3-0)
This course explores racism from a cognitive-social psychological viewpoint. The processes involved in the development, maintenance and change of racial attitudes are considered. Prerequisites: junior or higher standing; PSY 330 or SOC 201; a social science methods class; or permission of instructor.

PSY 534 Psychology and the Courtroom 3(3-0)
The application of psychological principles and theories to the courtroom. Prerequisites: coursework in basic statistics (e.g., PSY 211) and research methods (e.g., PSY 285); graduate standing; or permission of instructor. This course is approved for offering in a distance learning format.

PSY 535 Organizational Psychology 3(3-0)
The study of organizations as complex social systems with analyses of individual and group behavior in organizations and responses of organizations to their environment. Prerequisite: PSY 336 or graduate standing or permission of instructor.

PSY 536 Personnel Psychology 3(3-0)
This course examines the identification, measurement, and development of individual differences, and job systems related to individual differences within organizations to improve job performance and satisfaction. Topics include job analysis, criterion development, personnel selection, training, and performance evaluation. Prerequisites: PSY 336 or permission of instructor, or graduate standing. Recommended: PSY 211.

PSY 537 Organizational Behavior Management 3(3-0)
Behavior analysis in business, industry, and human service settings. Applied research in organizations is emphasized. Empirical rather than theoretical approach. Prerequisites: PSY 336 or PSY 370 or PSY 384 or graduate standing or permission of instructor.

PSY 544 Theories of Personality 3(3-0)
Theories regarding the structure and functions of personality. Prerequisite: PSY 340.

PSY 555 Psychopathology of Children 3(3-0)
Problems of children deviating from the norm in behavior and adjustment. Prerequisites: PSY 220, PSY 250 or equivalent.

PSY 559 Rehabilitation Psychology 3(3-0)
Psychological concepts in understanding physical disability from the perspectives of the individual, family and society will be emphasized. Designed for advanced students in health professions. Prerequisites: PSY 100 and PSY 220; or graduate standing.

PSY 562 Therapeutic Intervention: Foundations 3(3-0)
Fundamental skills for therapeutic intervention including theory and technique. Prerequisite: PSY 350 or graduate standing or permission of instructor.

PSY 575 Autism Spectrum Disorder: Characteristic and Etiology 3(3-0)
This course will review the behavioral and educational characteristics of students with autism spectrum disorders. Known causes of this disorder will also be examined. Identical to SPE 530. Credit may not be earned in more than one of these courses. Prerequisites: senior or graduate status.

PSY 579 Behavioral Medicine 3(3-0)
Applications of behavior analysis and social learning in medicine, dentistry, and physical health. Prevention, treatment, and long-term maintenance are all considered. Prerequisite: PSY 384 or PSY 370 or permission of instructor or graduate standing.

PSY 583 Motivation and Emotion 3(3-0)
Survey of the theories, systems and concepts of motivation and emotion. Prerequisite: 15 hours of psychology; graduate standing; or permission of instructor.

PSY 584 Cognitive Neuroscience 3(3-0)
Converging evidence from human neuroanatomy and neurophysiology, cognitive psychology, neuropsychology, and neuromaging research will be examined for topics in attention, perception, memory, language, and emotion. Prerequisites: PSY 387 or permission of instructor or graduate standing.

PSY 585 Psychophysiology 3(3-0)
Introduction to psychophysiological methods, measures, and applications. Topics include: basic neuroanatomy and neurophysiology; electrophysiological recording; inference using brain, cardiovascular, somatic measures; biofeedback; ergonomic, and other applications. Prerequisite: PSY 387 or permission of instructor or graduate standing.

PSY 586 Applied Behavioral Analysis in Education 3(3-0)
Behavior modification techniques in the areas of motivation, elimination of undesirable behaviors, promotion of academic participation, and definition of behavioral objects. Prerequisites: PSY 100 or equivalent, and upper-division or graduate standing.

PSY 587 Physiological Psychology 3(3-0)
Physiological events which underlie human and animal behavior. Prerequisite: PSY 387 or graduate standing.

PSY 588 Functional Neuroanatomy 3(3-0)
Function of the nervous system in behavior. Emphasis is on how various CNS structures function to mediate behavior. Prerequisite: PSY 387 or equivalent or graduate standing.

PSY 589 Cognitive Psychology 3(3-0)
Introduction to cognitive processes; survey of theory and research in memory thinking, concept formation, problem solving, and language. Prerequisites: PSY 383 or permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

PSY 600 Special Issues: Title to be listed 1-12(Spec)
PSY 605 Assessment of Affective and Behavioral Disorders of Children and Youth 3(3-0)
PSY 609 History and Systems of Psychology 3(3-0)
PSY 611 Research Design 3(3-0)
PSY 612 Applied Multiple Regression and Correlation 3(3-0)
PSY 613 Multivariate and Correlational Methods 3(3-0)
PSY 619 Continuing Registration for Final Research Project 1(1-0)
PSY 624 Advanced Developmental Psychology 3(3-0)
PSY 630 Advanced Social Psychology 3(3-0)
PSY 636 Organizational Applications of Personality Psychology 3(3-0)
PSY 641 Objective Personality Assessment 3(2-2)
PSY 642 Clinical Research Methods 3(3-0)
PSY 653 Intervention I: Adult 3(3-0)
PSY 655 Introduction to Intelligence Testing 2(2-2)
PSY 656 Advanced Intellectual Assessment 2(2-2)
PSY 657 Assessment I: Adult 3(3-1)
PSY 658 Assessment II: Child and Adolescent 3(3-1)
PSY 660 Intervention II: Child and Adolescent 3(3-0)
PSY 661 Neuropsychological Assessment 3(3-0)
PSY 662 Advanced Therapeutic Interventions 3(3-1)
PSY 667 Assessment and Development of Academic Skills I 3(3-1)
PSY 677 Assessment and Development of Academic Skills II 3(3-0)
PSY 680 Learning 3(3-0)
PSY 681 Sensation and Perception 3(3-0)
PSY 682 Psychology of Child Development 3(3-0)
PSY 686 Engineering Psychology 3(3-0)
PSY 687 Physiological Foundations 3(3-0)
PSY 690 Research Seminar: Experimental Psychology 1-3(Spec)
PSY 696 Directed Research 1-12(Spec)
PSY 697 Independent Study 1-8(Spec)
PSY 700 Special Issues 1-12(Spec)
PSY 724 Psychology of Aging 3(3-0)
PSY 727 Developmental Neuropsychology 3(3-0)
PSY 736 Strategies for Interventions in Social Systems 3(Spec)
PSY 737 Seminar in I/O Psychology 3-12(Spec)
PSY 751 Psychopathology 3(3-0)
PSY 760 Seminar: School Services 3(3-0)
PSY 765 Seminar: Ethics and Professional Issues 3(3-0)
PSY 766 Seminar: Consultation Skills 3(Spec)
PSY 767 Assessment and Intervention for Developmental Disabilities 3(3-0)
PSY 780 Behavior Therapy 3(2-2)
PSY 781 Seminar: Perception 4(Spec)
PSY 785 Seminar: Cognitive-Behavior Theory 3(3-0)
PSY 789 Seminar in Applied Experimental Psychology 1-9(Spec)
PSY 790 Practicum I A: Professional Services 3(Spec)
PSY 791 Practicum I B: Professional Services 3(Spec)
PSY 792 Supplemental Supervision 1-3(Spec)
PSY 795 Internship in School Psychology A 3(Spec)
PSY 796 Internship in School Psychology B 3(Spec)
PSY 798 Thesis 1-6(Spec)
PSY 800 Research in Applied Experimental Psychology 1-12(Spec)
PSY 818 Program Evaluation 3(Spec)
PSY 850 Ethnic and Minority Issues in Therapy 3(3-0)
PSY 890 Practicum II A: Professional Services 3(Spec)
PSY 891 Practicum II B: Professional Services 3(Spec)
PSY 892 Practicum III A: Professional Services 3(Spec)
PSY 893 Practicum III B: Professional Services 3(Spec)
PSY 898 Doctoral Dissertation: Design 3-12(Spec)
PSY 899 Doctoral Dissertation: Implementation 3-12(Spec)
PSY 990 Internship A: Professional Services 3-6(Spec)
PSY 991 Internship B: Professional Services 3-6(Spec)

**Physical Therapy (PTH)**

For more information, see the School of Rehabilitation and Medical Sciences and the College of Graduate Studies Bulletin for more information. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

PTH 615 Principles of Pharmacology 1(1-0)
PTH 617 Clinical Pathophysiology I 1(1-0)
PTH 618 Human Physical Development 2(2-0)
PTH 619 Continuing Registration for Final Research Project 1(1-0)
PTH 620 Clinical Management of Geriatric Patients 2(2-0)
PTH 621 Clinical Pediatrics 2(2-0)
PTH 622 Clinical Pathophysiology II 1(1-0)
PTH 623 Clinical Pathophysiology III 1(1-0)
PTH 624 Clinical Pathophysiology IV 1(1-0)
PTH 625 Neuroanatomy in Physical Therapy 3(3-0)
PTH 633 Clinical Education I 3(1-4)
PTH 634 Clinical Education II 6(Spec)
PTH 635 Examination and Diagnosis I 2(1-2)
PTH 636 Examination and Diagnosis II 2(1-2)
PTH 645 Patient Care I 3(3-4)
PTH 646 Patient Care II 5(3-4)
PTH 655 Teaching and Learning in Physical Therapy 2(2-0)
PTH 661 Manual Therapy I 1(0-2)
PTH 662 Manual Therapy II 2(0-4)
PTH 663 Proprioceptive Neuromuscular Facilitation 2(2-0)
PTH 665 Physical Therapy Seminar I 1(1-0)
PTH 666 Physical Therapy Seminar II 1(1-0)
PTH 672 Clinical Anatomy and Kinesiology of Human Joints 4(3-3)
PTH 690 Motor Learning in Neurorehabilitation 2(2-0)
PTH 692 Clinical Biomechanics 2(1-2)
PTH 695 Ethics in Physical Therapy 3(3-0)
PTH 710 Principles of Clinical Management 3(3-0)
PTH 732 Clinical Education III 3(1-4)
PTH 735 Examination and Diagnosis III 2(1-2)
PTH 736 Examination and Diagnosis IV 2(1-2)
PTH 745 Patient Care III 5(3-4)
PTH 746 Patient Care IV 4(3-2)
PTH 765 Physical Therapy Seminars III 1(1-0)
PTH 766 Physical Therapy Seminars IV 1(1-0)
PTH 790 Clinical Research 1(4-0)
PTH 791 Independent Study 1-3(Spec)
PTH 792 Special Topics in Physical Therapy 1-9(1-9)
PTH 825 Health Promotion in Physical Therapy Practice 2(2-0)
PTH 832 Clinical Education IV 12(Spec)
PTH 850 Evidence Based Practice in Physical Therapy 2(2-0)
PTH 860 Health Informatics for Physical Therapists 2(2-0)
PTH 870 Rehabilitation Care Management 3(3-0)
PTH 890 Clinical Research I 4(4-0)
PTH 932 Clinical Education V 12(Spec)

**Religion (REL)**

See the Department of Philosophy and Religion for more information.

**REL 101 World Religions: An Introduction to the Study of Religion 3(3-0)**
Basic forms of religious activity and experience studied as an essential component of human life; includes a survey of major religious traditions. This course is approved for offering in a distance learning format. This course is approved for offering in a distance learning format. (Group I-A)

**REL 130 Religion in America 3(3-0)**
An introduction to the varieties of religious experience in America; emphasis on the ways religious traditions have interacted with American culture and politics. (Group I-A)

**REL 140 Religion, Race and Discrimination in America 3(3-0)**
Introduction to the religious expressions of Americans who have experienced racial discrimination, with emphasis on Native American, African-American, and Hispanic-American communities. (Group IV-C)

**REL 207 Women in Religion 3(3-0)**
The place and image of women in major religious traditions. Emphasis on seminal literature about religious reform, creation of alternative institutions, new concepts of spirituality. Identical to WST 207. Credit may not be earned in more than one of these courses. (Group IV-A)

**REL 220 Religious Traditions of China 3(3-0)**
Study of the basic character of Chinese religion, including Chinese Buddhism. Examines both popular religion and major traditions (Confucian, Taoist). (Group IV-B)

**REL 221 Religious Traditions of Japan 3(3-0)**
Introduction to the major characteristics of Japanese religion, including Shinto and Chinese Confucian and Buddhist elements; emphasis on religion in a Japanese cultural setting. (Group IV-B)

**REL 222 Religious Traditions of India 3(3-0)**
The major features of the Hindu tradition, including the Buddhist and Jaina traditions in India. Stresses the significance of practice and doctrine in Indian religion. (Group IV-B)

**REL 235 Religion and Social Issues 3(3-0)**
Introduction to religious ethical thought in its personal, social and institutional contexts, considered in relation to current societal, medical, and sexual issues. (Group IV-A)

**REL 240 African-American Religion 3(3-0)**
Origins, development, and contemporary character of African-American religion, including Christianity, Islam, and new religious movements. (Group IV-C)

**REL 250 The Old Testament and Its Age 3(3-0)**
The literature, history, and religion of ancient Israel in its Near Eastern context as disclosed through study of the Hebrew Bible in English translation. (Group I-A)

**REL 260 The New Testament and Its Age 3(3-0)**
Intensive study of selected portions of New Testament literature, with an introduction to the Hellenistic-Roman age through study of selected background documents. (Group I-A)

**REL 297 Special Studies 1-6(Spec)**
Introductory-level study of selected topics using readings, discussions, lectures, and research as appropriate.

**REL 301 Myth and Meaning 3(3-0)**
Study of myth and myth-making as expressions of humankind’s quest for order and meaning in life. Examines myth in general and in specific cultural settings.

**REL 302 Witchcraft, Magic, and Occult Phenomena 3(3-0)**
A study of witchcraft in its European and African settings as well as a study of the intellectual history of witchcraft and occultism.

**REL 303 Goddesses 3(3-0)**
Interdisciplinary study of nature and role of goddesses in selected cultures, ancient and modern. Examination of issues raised when contemporary groups employ/reinvent goddess concepts. Identical to WST 303. Credit may not be earned in more than one of these courses.

**REL 304 Religion and Psychology 3(3-0)**
Surveys classic and contemporary psychological theories of religion, including the behavioral, comparative, and cognitive perspectives; also explores the psychological role of religion in human life.

**REL 305 Mysticism 3(3-0)**
Exploration of mystic experience, including consideration of its place in religious life, its modes of expression, and the major mystical figures in the world’s religions.

**REL 313 Christianity 3(3-0)**
Development of the Christian religious tradition from Jesus of Nazareth to its major contemporary branches: Orthodoxy, Roman Catholicism, and Protestantism. (Group I-A)

*Descriptions of courses approved for the University Program appear in italic type.*
REL 314 Islam 3(3-0)
Phenomenological approach, stressing sources, institutions, dogmas, modes of expression within the context of Islamic civilization, and the role in the contemporary world, especially in the Middle East. (Group IV-B)

REL 315 Judaism 3(3-0)
Judaism as a multifaceted approach to identity and lifestyle, both personal and societal; religious expressions such as Torah, myth, ritual, festivals, holy days. (Group I-A)

REL 320 The Buddhist Tradition 3(3-0)
The general nature of Buddhism, with attention to particular developments within it (e.g., Theravada, Mahayana, Tibetan Buddhism). Examines Buddhism’s role in various Eastern cultures. This course is approved for offering in a distance learning format. This course is approved for offering in a distance learning format. (Group IV-B)

REL 330 Religious Issues In Modern America 3(Spec)
Studies of religious issues in contemporary American life and thought: e.g., liberalism and fundamentalism; new religious movements. May be repeated once for credit.

REL 334 Death and Dying: Religious Dimensions 3(3-0)
Religious and cultural understandings of death; selected religious and moral problems related to death, e.g., suicide, abortion, euthanasia; religious rituals and death. Prerequisites: 12 hours of college credit or permission of instructor. This course is approved for offering in a distance learning format. (Group IV-A)

REL 338 Religion in Popular Culture 3(3-0)
This course examines the religious dimensions of popular culture. Topics include myth and the ritual in secular society, and popular artistic representations of the divine.

REL 340 Modern Religious Thought 3(3-0)
Studies major issues in modern religious thought: e.g., religion and science; theologies of liberation; Christianity and the encounter of world religions.

REL 342 From Spirituals to Gospel 3(3-0)
The development of African-American religion from 19th century to the present through an examination of the nature and function of religious song. No knowledge of music theory required. (Group IV-C)

REL 345 The Civil Rights Movement 3(3-0)
Examines the civil rights movement from 1954 to 1968; based on PBS series: Eyes on the Prize. Identical to SOC 345, PHL 345, PSC 325. Credit may not be earned in more than one of these courses. Prerequisites: Any one of the following: HST 110, HST 111, HST 112, LAR 145, PSC 100, PSC 125, REL 140, SOC 100. (Group IV-C)

REL 347 African American Reflections on Racism 3(3-0)
Impact and of resistance to racism treated in theoretical works (theology, ethics, social sciences) and illustrated in the lives and creative works of African Americans. (Group IV-C)

REL 351 Prophecy and Prophets 3(3-0)
Psychological and spiritual phenomenon of prophecy in the ancient Near East; intensive study of Old Testament prophetic literature; historical context, literary form, theological content.

REL 362 The Apocalyptic Message and Method 3(3-0)
Exploration of apocalyptic thought and literature; examination of its significance and continuing influence; evaluation of its method and approach.

REL 363 Ethics and Morality in the Bible 3(3-0)
Examination of representative biblical codes of conduct, their underlying ethical principles, and their application to perennial moral issues, such as killing, sexuality, and economic justice.

REL 365 The Sayings of the Historical Jesus 3(3-0)
Study of Jesus’ teaching, its environment, sources and methods used for its recovery, literary forms in which it was transmitted, and reconstruction of its contents.

REL 376 Luke: His Life, Letters and Legacy 3(3-0)
Study of Paul’s environment, life, work, and letters and his influence on the subsequent history of Christian thought.

REL 380 History of Israel 3(3-0)
Israel and Palestine from ancient times to the present, including background to contemporary Zionism and the conflict with Arab nationalism. Identical to HST 382. Credit may not be earned in more than one of these courses.

REL 382 History of Israel 3(3-0)
Israeli and Palestinian history from ancient times to the present, including background to contemporary Zionism and the conflict with Arab nationalism. Identical to HST 382. Credit may not be earned in more than one of these courses.

REL 387 Special Studies 1-9(Spec)
Each offering studies a selected topic using readings, discussions, lectures, and research as appropriate.

REL 492 Readings in World Religion 1-9(Spec)
Advanced independent study for the interested and qualified student. Prerequisite: permission of instructor.

REL 493 Readings in American Religion 1-9(Spec)
Advanced independent study for the interested and qualified student. Prerequisite: permission of instructor.

REL 494 Readings in Religion and Society 1-9(Spec)
Advanced study for the interested and qualified student. Prerequisite: permission of instructor.

REL 495 Readings in Biblical Studies 1-9(Spec)
A scholarly study of a limited portion of the Bible, making use of historical, linguistic, and archaeological studies. Prerequisite: permission of instructor.

REL 498 Readings in the Greek Bible 1-9(Spec)
The direct study of the Greek Old and/or New Testament. Prerequisite: permission of instructor.

REL 501 Seminar in the Study of Religion 3(3-0)
The study of religion as an academic discipline, including a selection of leading scholarly approaches to the investigation of religious phenomena. Prerequisites: 9 credit hours in Religion or permission of instructor.

REL 505 Research Seminar 3(3-0)
A seminar supporting research projects in religion, primarily intended for seniors who are religion majors. Prerequisite: for undergraduates, a signed permission of instructor. For graduate studies, permission of instructor.

REL 597 Special Topics 1-6(Spec)
Advanced study of selected topics using readings, discussions, lectures, and research as appropriate.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

REL 642 African-American Sacred Song 3(3-0)

Recreation and Leisure Activities (RLA)

See the Department of Recreation, Parks, and Leisure Services Administration for more information. Note: a limitation of 6 hours of PED and RLA courses may be applied toward the requirements for graduation.

RLA 116 Introduction to Fly Fishing 1(1-0)
Introduction to basic fly fishing techniques and methods. Not to be applied to an RPL major or minor. CR/NC only.

RLA 120 Introduction to Fly Tying 1(1-0)
Introduction to beginning fly tying methods to attract freshwater game fish in lakes and streams. Not to be applied to RPL major or minor. CR/NC only.

RLA 150 Canoe Camping and Touring 1(1-0)
Fundamentals of canoe camping and touring on lakes and rivers. Not to be applied to RPL major or minor. CR/NC only.

RLA 170 Beginning Rock Climbing 1(1-0)
Basic concepts of rock climbing and rappelling. Focus will be on belaying, knot tying, gear selection, and movement on the rocks. Not to be applied to an RPL major or minor. CR/NC only.

RLA 180 Introduction to Backpacking 2(1-1)
Basic concepts of backpacking for the recreational backpacker, focusing on equipment, packing, cooking, hiking, and environmental ethics. Not to be applied to RPL major or minor. CR/NC only.

RLA 200 Special Activity Topics in Recreation 1-3(Spec)
Designed for students to gain an understanding of topic areas and display skills to actively participate in the topical area as a lifetime leisure pursuit. Repeatable up to 3 credits when content previously studied is not duplicated. Not to be applied to an RPL major or minor. CR/NC only.

RLA 225 Recreational Crafts 2(2-0)
Leading and designing innovative, cost effective and creative recreational crafts for a variety of cultural and ability groups. Not to be applied to RPL major or minor. CR/NC only.

RLA 270 Advanced Rock Climbing 2(2-0)
Learning advanced concepts of rock climbing, focusing on climbing anchors, advanced movement techniques, and safety. Not to be applied to RPL major or minor. CR/NC only. Prerequisite: RLA 170.

Recreation, Parks, Leisure Services Administration (RPL)

See the Department of Recreation, Parks, and Leisure Services Administration for more information.

RPL 102 Leisure in Your Life 3(3-0)
A survey of professional opportunities in leisure related professions. No credit for student with credit in RPL 119.

RPL 119 Introduction to Recreation 2(2-0)
The nature, scope, and significance of recreation in today’s world. A survey of professional opportunities. No credit for student with credit in RPL 119.

RPL 119 Introduction to Leisure Services 1(1-0)
A survey of professional opportunities in leisure related professions. No credit for student with credit in RPL 118. CR/NC only.
RPL 200 Problems in Recreation 1-(Spc)
Concentrated study of a current problem. Workshops concerned primarily with special recreation programs such as hunter safety, development of snowmobile programs, teaching of water safety.
RPL 204 Community Recreation 3-(Spc)
Introduction and study of interrelationships of community organizations sharing a recreation responsibility.
RPL 205 Outdoor Leadership 3-(Spc)
Introduction to outdoor leadership; study of leadership in outdoor and camp settings.
RPL 206 Recreation Activities Leadership 3-(Spc)
Simple crafts, dramatics, games of low organization, individual sports, social events, and hobbies. Methods, techniques, and organization in recreation.
RPL 210 Recreation for Diverse Populations 3-(Spc)
Introduction of recreation programming for diverse populations including: population characteristics, programming applications (benefits/constraints), legal and legislative considerations, and history/trends.
RPL 216 Introduction to Outdoor Recreation 3-(Spc)
Introduction to history and development of Outdoor Recreation as a profession. Overview of federal, state, and local governments as providers of outdoor recreation.
RPL 218 Teaching of Outdoor Skills 3-(Spc)
Techniques of teaching four traditional outdoor recreation pursuits (shooting sports, fishing, canoeing, map and compass). Emphasis on assisting people to develop lifetime outdoor recreation skills.
RPL 219 Camp Counseling and Leadership 3-(Spc)
Introduction to techniques and practices for camp counseling and leadership positions.
RPL 261 Introduction to Private and Commercial Recreation 3-(Spc)
An introduction to the broad areas of, and career opportunities in, commercial recreation and facility management.
RPL 303 Independent Reading 1-(Spc)
In-depth exploration of one or more aspects of the field of the leisure services profession through individual study.
RPL 307 Management Skills in Leisure Services 3-(Spc)
The development of conceptual and human relations skills necessary to the successful management of a leisure service agency. Prerequisites: RPL 118; and one of the following: RPL 204, RPL 216 or RPL 261, or permission of instructor.
RPL 309 Microcomputers in Recreation and Park Administration 3-(Spc)
Microcomputer applications for recreation, parks, and leisure. Prerequisites: basic knowledge of microcomputers recommended.
RPL 310 Pre-Internship in Leisure Services 1-(I-O)
Preparation for participation in the internship experience. Should be taken at least two semesters prior to internship. CR/NC only.
RPL 314 Field Course in Commercial Recreation 1-5(Spc)
Well-supervised practical experience in some facet of commercial recreation. Maximum of 6 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, and RPL 317. Prerequisites: permission of the Director of Recreation and Park Administration or designated faculty member.
RPL 315 Field Course in Municipal Recreation 1-5(Spc)
Well-supervised practical experience in some facet of municipal recreation. Maximum of 8 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, RPL 317.
RPL 316 Field Course in Therapeutic Recreation 1-5(Spc)
Well-supervised practical experience in some facet of therapeutic recreation. Maximum of 8 hours may be earned in the four courses: RPL 314, RPL 315, RPL 316, RPL 317.
RPL 317 Field Course in Camping 1-5(Spc)
Practical experience as counselor in well-supervised camp program. Maximum of 8 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, RPL 317.
RPL 318 Field Course in Recreation Specialization 1-5(Spc)
Well-supervised practical experience as a recreation or park specialist. May be repeated with different specializations up to a total of 5 hours of credit. A maximum of 10 hours may be earned from block: RPL 314, RPL 315, RPL 316, RPL 317, RPL 318, RPL 319.
RPL 319 Field Course in Park Operations 1-5(Spc)
Practical experience in park and recreation facility maintenance and operations. A maximum of 10 hours may be earned from block: RPL 314, RPL 315, RPL 316, RPL 317, RPL 318, RPL 319.
RPL 320 Internship Recreation 6-30(Spc)
In-depth, capstone internship experience in commercial, community, therapeutic, or outdoor recreation. Prerequisites: RPL 310. Prior to beginning the internship, the student must have received signed permission from their major advisor.
RPL 321 International Practicum in Leisure Services 1-12(Spc)
In-depth, practical field experience for international students with a leisure or recreation agency. Recommended: Related field of study at a foreign university.
RPL 340 Therapeutic Recreation: Developmental Disabilities 3-(Spc)
Concepts, interventions and therapeutic recreation programming strategies for persons with developmental disabilities.
RPL 341 Therapeutic Recreation: Physical Disabilities 3-(Spc)
Implications for therapeutic recreation in the rehabilitative process involving persons with physical disabilities. Prerequisites: RPL 210, PES 386, or SPE 128.
RPL 342 Therapeutic Recreation: Emotional Impairments 3-(Spc)
The role of therapeutic recreation in the rehabilitation process and implementation of diagnostically designed programs for the emotionally impaired.
RPL 343 Tourism 3-(Spc)
An examination of where and why the hospitality services industry client travels at home and abroad and the economic impact of tourism expenditures. Identical to HSA 343. Credit may not be earned in more than one of these courses. Recommended: 56 semester hours completed; admission to Professional Business Studies, or listed on signed major or minor.
RPL 344 Therapeutic Recreation: Alcohol and Drug Dependency 3-(Spc)
The role of therapeutic recreation in the preventative and rehabilitative process of programs for persons with alcohol and chemical dependency disorders.
RPL 345 Therapeutic Recreation: Gerontology 3-(Spc)
Concepts, interventions, and therapeutic recreation programming strategies for elderly people with disabilities.
RPL 346 Recreation for Senior Citizens 3-(Spc)
Proposing, organizing, administering, and conducting recreation activities for older adults.
RPL 347 Special Olympics: Competition for Persons with Mental Retardation 3-(Spc)
Competitive recreation programs for persons with mental retardation. Students will work with summer Special Olympics. CR/NC only.
RPL 348 Aquatic Therapy Seminar 1-(I-O)
Explore the benefits and techniques of aquatic therapy when servicing individuals with neurological, neuromuscular, and orthopedic disorders. All students will practice techniques in the water. Prerequisite or Co-requisite: RPL 341. Recommended: Signed major in Allied Health field.
RPL 358 Foundations of Outdoor and Environmental Education 3-(Spc)
Introduction to the foundational concepts, principles, and teaching methods of outdoor and environmental education for non-formal and formal education settings.
RPL 359 Advanced Expedition Planning 3-(Spc)
Advanced concepts in wilderness expedition planning. The course focuses on equipment, techniques, and leadership of land and water based expeditions. Prerequisite: RLA 180 or prior backpacking experience required.
RPL 400 Issues in Recreation 1-(Spc)
Concentrated study of current recreation and park administration problems. Workshops concerned with such areas as public relations in recreation facility development, and National Park system.
RPL 405 Administration of Recreation and Parks 3-(Spc)
The organization and administration of the recreation and parks program. Problems of surveys, finance, publicity, program planning, leadership, liability, and park facility planning and maintenance. Prerequisites: RPL 118; one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.
RPL 406 Seminar in Recreation and Park Administration 3-(Spc)
In-depth study of the inner workings of various city administrative operations for recreation and parks. Prerequisites: RPL 118; one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.
RPL 420 Planning and Facility Design for Leisure 3-(Spc)
Basic concepts related to master planning for leisure services; planning and design of recreation areas and sites; planning, design, and construction of recreation facilities.
RPL 430 Planning Recreation Programs and Events 3-(Spc)
Development and implementation of recreation experiences and events for diverse populations in a variety of leisure service settings. Prerequisites: RPL 118; one of the following: RPL 204, 216; or RPL 261; or signed Event Management minor.
RPL 435 Leadership in Adventure Education Programming 3-(Spc)
Leadership in trip-planning, risk management, and outdoor etiquette in adventure education. In-depth content in facilitation, processing, campcraft skills, and environmental ethics. Weekend trips required. Prerequisites: RPL 118, RPL 216; or permission of instructor.
RPL 436 Recreation Facility Operations 3-(Spc)
Develop operational knowledge related to the operation and organization of recreation complexes. Prerequisite: RPL 307.
RPL 438 Meeting and Exposition Planning 3(3-0)
   The development of skills and knowledge necessary for successful plan-
   ning and management of conventions, meetings, and expositions in a com-
   mercial recreation setting.

RPL 440 Special Event Administration 3(3-0)
   Explore the dynamics of the event industry. Develop skills in event admin-
   istration, logistics, revenue development, proposals, design, planning and
   coordination of large-scale special events.

RPL 460 Quality Service Systems in the Leisure Service Industry 3(3-0)
   Develop an orientation toward and philosophy of quality service principles
   and practices as they relate to a variety of leisure service industries. Fee
   required. Prerequisites: RPL 118; RPL 204 or 261; or signed Event Manage-
   ment minor.

RPL 470 Park Management 3(3-0)
   Elements of the park system. Administration, planning, construction, and
   maintenance problems.

RPL 499 Independent Research in Leisure Services 1-3(Spec)
   Research on a topic of interest to the student. Topic, outcomes, and hours
   must be approved prior to enrollment. Open to juniors and seniors. CR/NC
   only. Prerequisites: one of: RPL 307, RPL 341, RPL 358, RPL 405, RPL 470.

RPL 508 Budgeting for Leisure Service Agencies 3(3-0)
   Basic budgetary principles and procedures for leisure service agencies.
   Prerequisite: RPL 204 or 210 or 261 or 261 or graduate status.

RPL 511 Liability and Risk Management in Leisure Services 3(3-0)
   Situational analysis of the legal systems impacting the delivery of recrea-
   tion and leisure services. Emphasis on applied legal understanding and
   loss control strategies. Prerequisites: one of: RPL 210, RPL 307, RPL 430,
   RPL 470.

RPL 518 Research & Philosophy in RPL 3(3-0)
   This course explores the philosophical, social, and historical foundations
   of parks, recreation and leisure. Develops skills for research in leisure service
   settings. Prerequisites: 14 credits in RPL or graduate status.

RPL 521 Fund Development & Grant Writing for Public & Non-profit
   Organizations 3(3-0)
   Processes, procedures, and applied skills for grant writing and fund devel-
   opment for public and non-profit organizations. Prerequisites: RPL 405 or
   508 or senior or graduate status.

RPL 545 Marketing of Leisure Services 3(3-0)
   Provides a basic basis for applying marketing principles and techniques to the
   provision of leisure service experiences. Prerequisites: 6 credits in RPL or
   signed Event Management minor or graduate status.

RPL 552 Environmental Interpretation 3(3-0)
   Develop an understanding of and skills to produce and implement interpre-
   tive programs in parks, campgrounds, visitor centers, and nature centers, and
   urban and rural areas. Prerequisites: RPL 358 or permission of instructor.

RPL 580 Programming for Therapeutic Recreation 3(3-0)
   Programming techniques for Therapeutic Recreation. Prerequisites: RPL
   210 or graduate status. Co-requisites: Two of the following: RPL 340, 341,
   342, 344, 345.

RPL 581 Therapeutic Recreation: Issues and Trends 3(3-0)
   Current issues and trends related to therapeutic recreation service delivery
   including: professional certification, third-party reimbursement, accredit-
   aion standards, legislation, ethics, and other administrative issues. Prerequi-
   site: RPL 210 or graduate status. Co-requisites: Two of the following RPL
   340, 341, 342, 344, 345.
   For 600 and 700 level course descriptions, consult the current College of
   Graduate Studies Bulletin.

RPL 600 Advanced Issues in Recreation 1-6(Spec)

RPL 603 Advanced Independent Reading in Recreation 1(Spec)

RPL 605 Administration of Leisure Services Systems 3(3-0)

RPL 610 Leisure Research 1(1-0)

RPL 611 Evaluation in Recreation and Leisure Services 3(3-0)

RPL 615 Practicum in Recreation Supervision and Administration 1-
   6(Spec)

RPL 618 Issues in Leisure 3(3-0)

RPL 619 Continuing Registration for Final Research Project 1(1-0)

RPL 620 Planning for Parks and Recreation Facilities 3(3-0)

RPL 625 Outdoor Recreation 3(3-0)

RPL 698 Graduate Internship 1-6(Spec)

RPL 699 Graduate Project 1-6(Spec)

RPL 754 Seminar in Recreation 2(2-0)

RPL 791 Independent Study 2(Spec)

RPL 798 Thesis 1-6(Spec)

Russian (RUS)

   See the Department of Foreign Languages, Literatures, and Cultures for
   more information.

RUS 101 Elementary Russian I 4(4-0)
   Designed for students who have had no Russian. Basic language skills.
   Introduction to the culture of the Russian-speaking countries. Students who
   have completed more than one year of Russian in secondary schools will not
   receive credit. (Group IV-B)

RUS 102 Elementary Russian II 4(4-0)
   Basic language skills. Continuation of RUS 101. Prerequisite: RUS 101 or
   equivalent.

RUS 201 Intermediate Russian I 4(4-0)
   More practice in hearing and speaking Russian, and exercises in reading
   and writing the language. Prerequisite: RUS 102 or equivalent.

RUS 202 Intermediate Russian II 4(4-0)
   Continuation of RUS 201. Prerequisite: RUS 201 or equivalent.

Science of Advanced Materials (SAM)

   See the College of Graduate Studies Bulletin for more information.

For 600 and 700 level course descriptions, consult the current College of
Graduate Studies Bulletin.

SAM 620 Chemical Principles in the Science of Materials 3(3-0)

SAM 630 Physical Principles in the Science of Materials 3(3-0)

SAM 690 Special Topics in Science of Advanced Materials 1-9(Spec)

SAM 700 Advanced Materials I: Inorganic and Nanomaterials 3(3-0)

SAM 710 Advanced Materials II: Polymers, Composites and Biomateri-
als 3(3-0)

SAM 720 Materials Characterization and Modeling Lab 3(1-5)

SAM 785 Seminar: Current Topics in the Science of Advanced Materials
1-10(Spec)

SAM 796 Directed Research in the Science of Advanced Materials 1-
4B(Spec)

SAM 899 Dissertation 1-12(Spec)

Sciences (SCI)

   See the College of Science & Technology for more information.

SCI 109 Critical Thinking in Science and Technology 1-3(Spec)
   Critical thinking and problem solving skills developed in the context of
   current topics in science and technology. A freshman experience course in
   Science and Technology.

SCI 197 Special Studies in Science 1-12(Spec)
   Primarily for freshmen or sophomores. Prerequisite: permission of instruc-
   tor.

SCI 397 Special Studies in Science 1-12(Spec)
   Primarily for juniors and seniors. Prerequisite: permission of instructor.

SCI 400 Teaching Integrated Science in Secondary School 3(2-2)
   Methods of teaching integrated science in the secondary school including
   hands-on investigations/laboratories, current curricula, and development of
   lesson plans in accord with best practices. Special note: Course must be
   completed prior to student teaching. Prerequisites: Admission to the Teacher
   Education Program and at least one course in each of the following designa-
   tors: AST, BIO, CHM, ESC, GEL, and PHY.

SCI 490 Contemporary Issues in Earth Science 1(1-0)
   A capstone course for earth science education majors. Students will inves-
   tigate connections and interrelationships between Earth system components
   and how these affect civilization and society. Prerequisites: 36 credits of re-
   quired and cognate courses on the earth science education major completed
   with a minimum average GPA of 2.7.

SCI 597 Special Studies in Science 1-12(Spec)
   Primarily for graduate students. Prerequisite: permission of instructor.

Sociology (SOC)

   See the Department of Sociology, Anthropology and Social Work for
   more information. Note: Prerequisites for any undergraduate course in sociology
   may be waived by permission of the department chair and the instructor.

SOC 100 Introductory Sociology 3(3-0)
   Systematic introduction to the field of sociology, its theories, concepts, and
   methods. Explores social relationships within the context of social structure.
   (Group III-B)

SOC 101 Social Justice in a Global Society 3(3-0)
   Introduction to key concepts in global social justice, foundational human
   rights instruments and processes, contemporary manifestations of social
   injustice, and the role of social action. Identical to ANT 101; credit may not
   be earned in more than one of these courses. (Group IV-A)
SOC 200 Introduction to Social Research and Analysis 3(3-0)
Basic research issues. Univariate, bivariate, and multivariate analysis techniques in sociology, social and criminal justice, and sociological work. Extensive computer applications. Prerequisites: SOC 100; completion of math competency.

SOC 201 Social Psychology 3(3-0)
Examines the links between social structure and self. Substantive topics may include: agency, emotions, socialization, attitudes, gender, inequality, deviance, conflict, and social change. (Group III-A)

SOC 210 Sociology of Science and Technology 3(3-0)
Social aspects of science and technology including their organization, personnel, social effects, relationship to government and education, and policy implications. Prerequisites: SOC 100 or 201 or 221

SOC 214 Sociology of Sexuality 3(3-0)
Sociological examination of human sexuality, sexual identity and community. Identical to WST 214; credit may not be earned in more than one of these courses. Prerequisite: SOC 100. Recommended: Or permission of instructor.

SOC 215 Youth, Deviance, and Institutions 3(3-0)
Sociological theories and research on youth considered "deviant" and their experiences with social institutions. Emphasis - topics such as runaways, prostitution, foster children, anorexia, addictions, sexual. Prerequisite: SOC 100 or 201 or 221.

SOC 220 Introduction to Social and Criminal Justice 3(3-0)
Conflicts over the just system. Social, criminal, and community-based focus. History, structure, functions, and philosophy of criminal justice system, and relationships to a just society. Prerequisite: SOC 100

SOC 221 Social Problems 3(3-0)
Nature and extent of major social problems. Underlying general social processes and specific factors, as well as proposed solutions. Prerequisite: One 3-hour course from Group III-B. (Group IV-A)

SOC 222 Juvenile Delinquency 3(3-0)
Nature, distribution, social construction, and theories of delinquency. Social reactions to delinquency including development of juvenile court and actions of juvenile justice agencies. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 223 Urban Structures and Change 3(3-0)
Culture and social systems of the city. Demographic structures, patterns of conflict and cooperation, and problems peculiar to urban social organization. Prerequisite: any course from sociology, political science, or permission of instructor. (Group IV-A)

SOC 301 Sociological Theory 3(3-0)
A review of sociological content within its social and historical context, focusing on Marx, Weber, Durkheim, and the perspectives of symbolic interactionism and feminism. Prerequisites: SOC 100 or 201 or 221

SOC 302 Social Inequality 3(3-0)
Class, race, and gender and other forms of social strata. The bases, con-sequences, and correlates of position in the system of stratification. Prerequisites: SOC 100 or 201 or 221

SOC 303 Sociology of Population 3(3-0)
Quantitative and qualitative aspects of the population of societies, includ- ing their composition, distribution, and movement. Prerequisite: SOC 100 or 221.

SOC 304 Collective Behavior 3(3-0)
Behavior in situations where institutionalized norms do not apply, such as panics, riots, and social movements. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 391

SOC 307 Social Movements, 1960s to the Present 3(3-0)
A survey of social movements of the past several decades that have pro-moted progressive social change, equal rights, liberation, and peace. Prereq-uisite: SOC 100 or SOC 201 or SOC 221.

SOC 310 Life in Russia Today 3(3-0)
Cross-cultural examination of modern Russia's people, society, and cul-ture; emphasis on everyday life, family, and social institutions, as well as overviewing the former USSR. (Group IV-B)

SOC 311 Sociology of Education 3(3-0)
Contributions of sociology to an understanding of education as a social process. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 314 Public Opinion and the Mass Media 3(3-0)
The methods and findings of social research on public opinion, and the effects of the mass media on values and attitudes. Prerequisite: 6 hours of coursework in PSC, PSY or SOC.

SOC 317 Sociology of Sex and Gender 3(3-0)
Analysis of the role of gender in institutions such as the economy, the family, and the school. Gender inequality and factors that promote its reprodu-citon. Identical to WST 317. Credit may not be earned in more than one of these courses. Recommended: One of the following SOC 100 or 201 or 221.

SOC 320 Sociology of Aging and Retirement 3(3-0)
Aging as a social phenomenon; with focus on aging in industrial societies. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 321 Deviant Behavior 3(3-0)
Relationship between social structure and deviant behavior. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 323 Racism and Inequality 3(3-0)
Relations among dominant and subordinate groups focusing on racism as structural inequality. This course is approved for offering in a distance learning format. Recommended: SOC 100, SOC 201, or SOC 221. (Group IV-C)

SOC 324 Criminology 3(3-0)
Nature, distribution, social construction, and theories of crime. Introduction to criminal justice processes. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 326 Inequalities and Justice Processes: Race, Class and Gender 3(3-0)
Empirical and theoretical critique of class, race, and gender inequalities in justice processes that impede effective solutions to social problems. Prereq-uisite: SOC 100 or SOC 201 or SOC 221.

SOC 345 The Civil Rights Movement 3(3-0)
Examines the civil rights movement from 1954 to 1980s; based on PBS series Eyes on the Prize. Identical to PHL 345, PSC 325, REL 345. Credit may not be earned in more than one of these courses. Prerequisites: Any one of the following: HST 110, HST 111, HST 112, LAR 145, PSC 100, PSC 125, REL 140. SOC 100. (Group IV-C)

SOC 350 Social Research Methodologies 3(3-0)
Data collection methodologies and issues. Covers participant observation and survey research, and two of the following: experiments/single subject designs, program evaluation, interviewing, ethnography/community studies. Prerequisites: SOC 100; 200 with a grade of “C” (2.0) or better, or equivalent course as determined by instructor with a grade of “C” (2.0) or better; six additional hours of sociology or social work.

SOC 370 Global Environmental Issues 3(3-0)
Social and cultural dimensions of global population issues, food and en-ergy policies, destruction of indigenous lifeways, roles of multinatinal organi-zations, and environmental racism, and environmental movements. Identical to ANT 370. Credit may not be earned in more than one of these courses.

SOC 397 Independent Study 1-12(Spec)
Directed reading or research on an approved topic. Prerequisite: SOC 100 or SOC 201 or SOC 221; open to students not on academic probation, with permission of instructor.

SOC 399 Special Topics in Sociology 1-12(Spec)
Consideration of subject-matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

SOC 402 Analysis of Social Change 3(3-0)
Factors explaining large-scale change in the Western and non-Western worlds. Change in smaller units such as the family and community. Prerequi-sites: SOC 100 or 201 or 221.

SOC 403 Political Sociology 3(3-0)
Social bases of American politics. Sociological theories and research on political behavior and distribution of power in the United States. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or PSC 280 and at least one PSC course at the 300-level or above

SOC 404 Institutional Analysis 3(3-0)
Nature and extent of major social problems. Underlying general social processes and specific factors, as well as proposed solutions. Prerequisite: One 3-hour course from Group III-B. (Group IV-A)

SOC 412 Sociology of Adolescence 3(3-0)
Factors explaining large-scale change in the Western and non-Western worlds. Change in smaller units such as the family and community. Prerequi-sites: SOC 100 or 201 or 221.

SOC 421 Racism 3(3-0)
Sociological examination of human sexuality, sexual identity and community. Identical to WST 214; credit may not be earned in more than one of these courses. Prerequisite: SOC 100. Recommended: Or permission of instructor.

SOC 422 Youth Welfare 3(3-0)
Issues pertaining to youth welfare are related to broader organizational and structural features of society, including historical and comparative (inter-national) perspectives. Identical to SWK 422. Credit may not be earned in more than one of these courses. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or signed Youth Studies Minor.

SOC 493 Independent Study 1-12(Spec)
Directed reading or research on an approved topic. Prerequisite: SOC 100 or SOC 201 or SOC 221; open to students not on academic probation, with permission of instructor.
SOC 425 Sociology of Childhood 3(3-0)
Sociological theories and research on children ages 3-12 years old. Explores peer culture, social problems, children in families, and social change. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 457 Globalization and Society 3(3-0)
Effects of the global economy on the division of labor, transnational migration, social inequality, ethnic identities, gender relations, and other aspects of social organizations. Identical to ANT 457. Credit may not be earned in both of these courses. Prerequisites: SOC 100 or 201 or 221; or ANT 170

SOC 501 Development of Sociological Theory 3(3-0)
In-depth analysis of classical sociological theory focusing on Marx, Durkheim, Weber, and Mead. The historical and intellectual context in which these theorists wrote is emphasized. Prerequisites: SOC 100, 201, 221; or graduate standing.

SOC 502 Theories of Race Relations in Sociology 3(3-0)
Contributions to sociological theories of race relations by major theorists including Dubois, Frazier, Cox, and others. Prerequisites: SOC 300, SOC 301, SOC 323; or SOC 325; signed American Ethnic Studies minor; or regular admission to the Sociology Graduate program.

SOC 506 Comparative Cultural Systems 3(3-0)
Explores theories of cultural development, with particular emphasis on urban and post-industrial cultures. Students investigate cultures different from their own. Identical to ANT 506. Credit may not be earned in more than one of these courses. Prerequisite: introductory anthropology and/or sociology course.

SOC 507 Class and Poverty in America 3(3-0)
Examination of theories of social class and their application to American society. Review of empirical literature on class and poverty in the U.S. Prerequisites: SOC 300 or SOC 200, 350; SOC 301; or admission to Graduate Program.

SOC 512 Industrial Sociology 3(3-0)
Characteristics of industrial societies. Relationship of the organization of industrial work to that of non-work culture, institutions, and roles. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or regular admission to the Sociology Graduate Program.

SOC 514 Sociology of Health and Illness 3(3-0)
Social forces that affect the health of populations and individuals, as well as the operations of a major social institution, that of medical care. Prerequisites: Completion of a University Group IIIIB Course or regular admission to the Sociology Graduate Program.

SOC 515 Custodial Institutions 3(3-0)
The structural organizational, and functional dimensions of custodial institutions in American society, emphasizing social process of jails, prisons, training schools, mental hospitals, and nursing homes. Prerequisites: SOC 300 or SOC 200, 350 or PSC 280; SOC 301; or regular admission to the Sociology Graduate Program.

SOC 521 Advanced Study of Deviant Behavior 3(3-0)
Contemporary issues in deviance theory and research. Prerequisites: SOC 300 or both SOC 200 and 350, SOC 301; SOC 321; or regular admission to the Sociology Graduate Program.

SOC 523 Community Corrections and Alternative Sentencing 3(3-0)
Justice policies and practices of community corrections and alternative sentencing are featured, including intermediate sanctions, probation, parole and prisoner reentry. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; 9 hours of social and criminal justice coursework; or regular admission to the Sociology Graduate Program.

SOC 524 Sociology of Law 3(3-0)
The association of law and social justice, social organization, stratification, and social control. Current issues in justice, law, and conflict resolution. Prerequisites: SOC 200, 350 (or SOC 300); SOC 301; or graduate standing.

SOC 525 Internship in Social and Criminal Justice 6(Spec)
Supervised practical experience in a criminal or social justice organization. CR/NC only. Prerequisites: SOC 523; permission of course instructor.

SOC 526 Police and Community Relations 3(3-0)
Community and police perceptions of police role in democratic society, police discretion, use of force, community policing, and related topics. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or regular admission to the Sociology Graduate Program.

SOC 527 Community-Based Justice 3(3-0)
Interdisciplinary approach to community as locus of justice, and justice as locus of community. Review of intellectual heritage of community study; community development; peacebuilding practices. Prerequisites: SOC 200, 301, 350 or regular admission to the Sociology Graduate Program.

SOC 530 Capstone Experience in Youth Studies 3(3-0)
Capstone course which provides field experience for students enrolled in the Youth Studies minor. Students spend time working with youth in various community settings and meet periodically on campus to systematically reflect on practical field experience. Prerequisites: SOC 100, 222, 311, 411, 412, 425; or graduate standing Co-requisites: Concurrent enrollment in SOC 411, 412, and/or 425 is permitted.

SOC 531 Capstone Experience in Global Justice 3(3-0)
Capstone course synthesizes course work on the issues of global social justice/injustice. Explores roots, consequences, types, policy approaches, and strategies for pursuing global justice. Identical to ANT 531. Credit may not be earned in more than one of these courses. Prerequisite: Sophomore standing. Class: 101; 15 hours in the Global Justice Minor; Completion of the Service Learning component of the Global Justice Minor; and Approval of the Global Justice Advisor. May be taken by SOC or ANT Majors with the approval of the Global Justice Advisor. Or, graduate standing.

SOC 590 Gender, Culture & Society 3(3-0)
Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to ANT 590 and WST 590. Credit may not be earned in more than one of these courses. Prerequisites: 6 hours of anthropology and/or sociology and/or women's studies, or permission of instructor.

SOC 599 Special Topics in Sociology 1-10(Spec)
Consideration of subject-matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

SOC 601 Contemporary Sociological Theory 3(3-0)

SOC 602 Professional Seminar 3(3-0)

SOC 605 Sociology of Knowledge 3(3-0)

SOC 607 Methodological Sociological Research 3(3-0)

SOC 611 Human Diversity Within and Between Families 3(3-0)

SOC 619 Continuing Registration for Final Research Project 1(1-0)

SOC 621 Social Control and Justice Systems 3(3-0)

SOC 623 Violence, Victims and Social Justice Responses 3(3-0)

SOC 624 Social Justice 3(3-0)

SOC 625 Field Consultation 3(3-0)

SOC 631 Workshop on Qualitative Research 3(3-0)

SOC 632 Techniques of Sociological Research 3(3-0)

SOC 699 Special Topics in Sociology 1-10(Spec)

SOC 795 Independent Reading 1-6(Spec)

SOC 796 Independent Research 1-6(Spec)

SOC 798 Thesis 1-6(Spec)

Special Education (SPE)
See the Department of Counseling and Special Education for more information.

SPE 126 Introduction to Special Education 3(3-0)

SPE 322 Curriculum and Instruction for Students with Special Needs 6(0)

SPE 323 Classroom Management for Students with Special Needs 3(3-0)

SPE 324 Special Education Classroom-Based Assessment 6(2-8)

SPE 327 Intervention Approaches to Design Positive Classroom Environments 3(3-0)

SPE 455 Special Education Student Teaching Seminar 3(3-0)

SPE 456 Special Education Student Teaching: Emotional Impairment 6(Spec)

SPE 794 Independent Study 6(Spec)

SOC 796 Independent Research 1-6(Spec)

SPE 798 Thesis 1-6(Spec)

Descriptions of courses approved for the University Program appear in italic type.
must be filed during the semester prior to registration for approval. Prerequisite with autism under faculty supervision. Application to register for this course SPE 536 Field Experience: Autism 3(Spec) 530 and senior or graduate status.

SPE 530 and senior or graduate status.  Graduate students may be admitted with permission of instructor.

SPE 519 Teaching the Student with Mild Cognitive Impairment 3(3-0) Causes of characteristics of mild cognitive impairment as well as curricular development and instructional methods. Grade of C+ or better required. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 521 Teaching the Student with Moderate to Severe Cognitive Impairment 3(3-0) Causes and characteristics of moderate to severe cognitive impairment. Curriculum development and instructional methods included. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 522 Field Experience-Cognitive Impairment 3(3-0) University-supervised practice and application of knowledge and strategies for teaching students with cognitive impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310.

SPE 529 The Gifted Child 3(3-0) Characteristics of children with superior abilities. Reviews special curricula and teaching procedures for improving the learning and adjustment of these children.

SPE 530 Autism Spectrum Disorder: Characteristics and Etiology 3(3-0) This course will review the behavioral and educational characteristics of students with autism spectrum disorders. Known causes of this disorder will also be examined. Identical to PSY 575. Credit may not be earned in more than one of these courses. Prerequisite: senior or graduate status.

SPE 531 Autism Spectrum Disorder: Educational Implications 3(3-0) Presentation of special techniques and materials used in best practice instruction of students with autism spectrum disorders. Prerequisites: SPE 530 and senior or graduate status.

SPE 536 Field Experience: Autism 3(Spec) Practice and application of knowledge and strategies for teaching students with autism under faculty supervision. Application to register for this course may be filed during the semester prior to registration for approval. Prerequisites: SPE 530, SPE 531, PSY 596, PSY 682, CDO 550, and graduate status.

SPE 545 Special Education Workshop 1-6(Spec) Study of trends, alternative approaches, and innovative curricula in programming for the exceptional student. Prerequisite: permission of instructor.

SPE 550 Teaching Culturally Diverse Students 3(3-0) Survey of sociocultural influences on the performance of students from culturally different backgrounds, and educational provisions made for them in public schools. Included are Hispanic, Black and Asian American, Native American; rural and urban disadvantaged and recent immigrants.

SPE 570 Career Development and Transition 3(3-0) Study of lifespan issues for persons with disabilities, stressing curriculum content and instructional strategies that promote interdisciplinary career development and transition education at all age levels. Prerequisites: SPE 126, with a grade of C or better; Junior status. Graduate students may be admitted with permission of instructor.

SPE 577 Introduction to Specific Learning Disability 3(3-0) Systematic introduction to the identification, diagnosis and remediation of specific learning disabilities. Prerequisite: approved major in psychology or special education, or graduate status.

SPE 578 Students with Emotional Impairment 3(3-0) Diagnostic procedures, therapy, and research concerning children and youth with emotional impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 579 Teaching Students with Emotional Impairment 3(3-0) Special techniques and materials used in instruction of students who have emotional and behavioral disorders. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324, SPE 578, and SPE 579 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 581 Field Experience-Emotional Impairment 3-6(Spec) University-supervised practice and application of knowledge and strategies for teaching students with emotional impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324, SPE 578, and SPE 579 with grades of C+ or better; admission to Teacher Education; PSY 310.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

SPE 600 Current Issues in Special Education 3(3-0) SPE 619 Continuing Registration for Final Research Project 1(1-0) SPE 640 Administration of Special Education 3(3-0) SPE 645 Special Education Workshop 1-6(Spec) SPE 665 Independent Study 1-3(Spec) SPE 666 Independent Study 1-3(Spec) SPE 675 Teaching the Student with Learning Disabilities 3(3-0) SPE 678 Education of Students with Severe Emotional Impairment 3(3-0) SPE 679 Behavioral and Curricular Interventions for Individuals with Mild 3(3-0) SPE 685 Innovative Cognitive Techniques in Special Education 3(3-0) SPE 689 Graduate Practicum in Special Education 3-6(Spec) SPE 695 Research for Counseling and Special Education 3(3-0) SPE 720 Seminar: Teaching Students with Severe Cognitive Impairment 3(3-0) SPE 741 Seminar: Administration of Special Education 2(2-0) SPE 750 Consultant Skills for Special Educators and Counselors 3(3-0) SPE 775 Seminar: Learning Disabilities 3(3-0) SPE 785 Seminar in Special Education 3(3-0) SPE 790 Seminar: Investigations and Solutions in Special Education 3(3-0)* SPE 798 Thesis 1-6(Spec)

Spanish (SPN)

101 Elementary Spanish I 4(4-0)

Designed for students who have had no Spanish. Basic language skills. Introduction to the culture of the Spanish-speaking countries. Students who have previous preparation in Spanish are required to take a placement exam. This course is approved for offering in a distance learning format. (Group IV-B)
SPN 102 Elementary Spanish II 4(4-0)
Basic language skills. Continuation of SPN 101. Recommended: SPN 101 or equivalent. (Group IV-B)

SPN 110 Study Abroad 1-8(Spec)
Intended for beginning students studying abroad. Prerequisite: permission of instructor.

SPN 201 Intermediate Spanish I 4(4-0)
Further development of all language and reading skills, a review of grammar, and exploration of Hispanic culture. Recommended: SPN 102 or equivalent. (Group IV-B)

SPN 202 Intermediate Spanish II 4(4-0)
Designed to develop fluency in reading Spanish; cultural emphasis. Recommended: SPN 201 or equivalent. (Group IV-B)

SPN 210 Study Abroad 1-12(Spec)
To develop proficiency in Spanish. Special topics may include language and/or culture. Intended for overseas study. Prerequisite: SPN 102 or equivalent or permission of instructor.

SPN 214 Intermediate Conversation and Composition 3(3-0)
Designed to develop fluency and accuracy in written and oral expression. Recommended: SPN 202 or equivalent; or may be taken concurrently with SPN 202.

SPN 310 Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisite: SPN 202; permission of instructor.

SPN 320 Spanish Pronunciation 3(3-0)
Provides an understanding of Spanish articulatory phonetics and helps students improve pronunciation by training them in Spanish articulatory habits to make their pronunciation more native-like. Recommended: SPN 214.

SPN 331 Advanced Grammar and Composition 3(3-0)
Designed to develop greater accuracy and fluency in written expression. Recommended: SPN 202 or equivalent, SPN 214 or equivalent.

SPN 335 Spanish for Business 3(3-0)
Designed for students who have an interest in acquiring useful and practical vocabulary in Spanish related to business and to develop fluency in writing and reading letters, contracts and other business documents in Spanish. Prerequisite: SPN 202 or equivalent.

SPN 341 Advanced Spanish Conversation 3(3-0)
Intended for those with some skill in speaking Spanish who wish to achieve greater fluency. Recommended: SPN 202 or equivalent and SPN 214 or equivalent.

SPN 370 Advanced Studies in Spanish 1-4(Spec)
Special topics may include language, literature and/or culture. Prerequisite: SPN 331.

SPN 376 Culture and Civilization of Spain 3(3-0)
Spanish culture and civilization focusing on political, social, geographic, intellectual and artistic development and their influence on the character and tradition of the Spanish people. Prerequisite: SPN 331.

SPN 377 Culture and Civilization of Latin America 3(3-0)
Historical and cultural development of Latin America from the pre-Columbian era through the present. Prerequisite: SPN 331.

SPN 386 Survey of Spanish Literature (Beginning to 1700) 3(3-0)
Literature of Spain from the Middle Ages to 1700. Prerequisite: SPN 331.

SPN 387 Survey of Spanish Literature (1700 to Present) 3(3-0)
Literature of Spain from the eighteenth century to the present. Prerequisite: SPN 331.

SPN 388 Survey of Spanish-American Literature (Beginnings to Modernism) 3(3-0)
General acquaintance with the literature of Spanish America from its beginnings to the modernist movement. Selections from representative authors. Prerequisite: SPN 331.

SPN 389 Survey of Spanish-American Literature (Modernism to Present) 3(3-0)
General acquaintance with the literature of Spanish America from modernism to the present. Selections from representative authors. Prerequisite: SPN 331.

SPN 404 Drama of the Siglo de Oro 3(3-0)
A study of major and lesser playwrights. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 405 Modern Spanish Novel 3(3-0)
Development of the novel in Spain from the nineteenth century to 1940. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 406 The Generation of 1898 3(3-0)
A study of the literary works of this group as masterpieces of literature and as a reflection of national and spiritual values. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 410 Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisite: 6 hours at the 300 level or equivalent; permission of instructor.

SPN 411 Practicum in Teaching Spanish 3(2-1)
Techniques for teaching and testing foreign language skills, planning lessons and units, and selecting texts, cultural materials and teaching aids. Practical experience through mini-teaching situations. Prerequisites: two 300-level courses; passing the competency exam; departmental permission.

SPN 412 Practicum: Secondary Field Experience 1(Spec)

SPN 415 Spanish-American Novel 3(3-0)
Representative masterpieces of the novel as they reflect the political and social conditions of the Spanish American countries. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 416 Spanish-American Drama and Essay 3(3-0)
Representative masterpieces of the two genres as they reflect the political and social conditions of the Spanish American countries. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 417 Spanish-American Poetry and Short Story 3(3-0)
Representative masterpieces of the two genres as they reflect the political and social conditions of the Spanish American countries. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 421 Foreign Language in Elementary Schools 1(1-0)
Techniques for teaching and testing foreign language skills, planning lessons and units, and selecting texts, cultural materials and teaching aids. Practical experience through mini-teaching situations. Corequisite: SPN 411.

SPN 422 Practicum: Elementary Field Experience 1(Spec)
Midtier experience in elementary teaching situations. CR/NC only. Co-requisite: SPN 421.

SPN 470 Advanced Studies in Spanish 1-4(Spec)
Special topics may include language, literature and/or culture. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 508 Contemporary Spanish Novel and Short Story 3(3-0)
Representative novels and short stories of Spain since 1940 reflecting politics, society, economics, and culture of Spain after the Civil War. Recommended: Three (3) credits in Spanish at the 400 level or permission of instructor.

SPN 591 Special Topics in Spanish 1-9(Spec)
Recommended: Three (3) credits in Spanish at the 400 level or permission of instructor.

SPN 597 Independent Study 1-6(Spec)
The in-depth study of a topic under the direction of a faculty member who together with a student designs the format of the study. Prerequisites: permission of instructor and department chairperson; three (3) credits in Spanish at the 400 level.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

SPN 610 Studies in U.S. Latino Cultures 3-6(3-0)
SPN 619 Continuing Registration for Final Research Project 1(1-0)
SPN 620 Cultures and Literatures of Spanish America 3-6(3-0)
SPN 630 Culture and Literature in Spain 3-6(3-0)
SPN 640 History of the Spanish Language 3(3-0)
SPN 650 Stylistics 3(3-0)
SPN 660 Spanish Phonology 3(3-0)
SPN 670 Study Abroad: Latin America 3-6(Spec)
SPN 680 Study Abroad: Spain 3-6(Spec)
SPN 697 Independent Study 1-3(Spec)

Social Sciences (SSC)
See the College of Humanities and Social & Behavioral Sciences for more information.

SSC 197 Special Studies in Social Science 1-12(Spec)
Primarily for freshmen or sophomores. Prerequisite: permission of instructor.

SSC 397 Special Studies in Social Science 1-12(Spec)
Primarily for juniors and seniors. Prerequisite: permission of instructor.

SSC 597 Special Studies in Social Science 1-12(Spec)
Primarily for graduate students. Prerequisite: permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
Statistics (STA)

See the Department of Mathematics for more information.

STA 282 Introduction to Statistics 3(3-0)
Descriptive statistics, probability, sampling distributions, statistical inference, regression. Course does not count on major, minor in mathematics. Credit may not be earned in both STA 282 and STA 382. Recommended: MTH 105 or equivalent competency. This course is approved for offering in a distance learning format.

STA 382 Elementary Statistical Analysis 3(3-0)
An introduction to statistical analysis. Topics will include descriptive statistics, probability, sampling distributions, statistical inference, and regression. Greater emphasis than in STA 282 will be placed on probability theory and probability distributions. Credit may not be earned in both STA 282 and STA 382. Prerequisite: MTH 130.

STA 392 Probability and Statistics for Engineers 3(3-0)
An introduction to statistical analysis emphasizing engineering applications. Topics include probability, random variables, distributions, estimation, hypothesis testing, regression, quality control, and reliability. Credit may not be earned in more than one of these courses: STA 282, 382, and 392. Prerequisite: MTH 133.

STA 575 Statistical Programming for Data Management and Analysis 3(3-0)
Introduction to statistical programming for managing and analyzing data, including programming logic, data manipulation, missing data handling, basic techniques for analyzing data and creating reports. Prerequisites: STA 282 or STA 382 or equivalent.

STA 580 Applied Statistical Methods I 3(3-0)
Applications of statistical methods including the usage of computer packages. Topics include forecasting, simple and multiple regression, and analysis of variance. Prerequisites: STA 282 or STA 382.

STA 582 Experimental Designs 3(3-0)
Randomized block designs, Latin square designs, factorial designs, fractional factorial designs, response surface methods, robust designs.

STA 583 Nonparametric Statistics 3(3-0)
Theory and applications of nonparametric methods. Topics include one-, two-, and several-sample problems, rank correlation and regression, Kolmogorov-Smirnov tests, and contingency tables. Prerequisite: STA 382.

STA 584 Mathematical Statistics I 3(3-0)
Probability defined on finite and infinite samples spaces, conditional probability and independence, random variables, expectations, moment-generating functions, probability models, limit theorems. Prerequisite: MTH 233.

STA 585 Mathematical Statistics II 3(3-0)
Introductory topics from mathematical theory of statistics: population distributions, sampling distributions, point and interval estimation, tests of hypotheses. Prerequisite: STA 584.

STA 586 Linear Regression and Survival Analysis 3(3-0)
Simple and advanced statistical techniques used in the analysis and interpretation of clinical research data. Emphasis on statistical techniques commonly used in chronic disease analysis. Prerequisites: STA 382 or equivalent.

STA 587 Statistical Theory and Methods for Quality Improvement 3(3-0)
Statistical theory and methods for optimizing quality and minimizing costs: classical and recently developed on-line methods and Taguchi's off-line quality and robust design methods. Prerequisites: STA 580.

STA 588 Sampling Techniques 3(3-0)
sampling, sampling distributions, point and interval estimation, tests of hypotheses. Prerequisite: STA 584.

STA 589 Time Series Forecasting 3(3-0)
Introduction to time series forecasting techniques. Topics include forecasting, Box-Jenkins models, time series regression, exponential smoothing, and transfer function models. Prerequisites: STA 580, or permission of instructor.

STA 590 Applied Statistical Methods II 3(3-0)
Multivariate ANOVA, multiple comparison procedures, analysis of covariance, repeated measures analysis, unbalanced data and missing data analysis. Prerequisites: STA 580 and MTH 223.

STA 591 Statistical Methods for Data Mining 3(3-0)
Introduction to statistical techniques for data mining, including an overview of data mining and its applications, commonly used data mining techniques such as clustering, classification, association and predictive modeling techniques. Prerequisites: STA 580.

STA 596 Special Topics in Statistics 1-6(Spec)
Subject matter not included in regular courses. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of the instructor.

STA 597 Independent Study 1-6(Spec)
The in-depth study of a topic in statistics under the direction of a faculty member. May be taken for credit more than once, total credit not to exceed six hours. Prerequisite: Permission of instructor.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

STA 680 Statistical Data Analysis and Consulting 3(3-0)
STA 682 Linear Models 3(3-0)
STA 684 Theory of Statistical Inference 3(3-0)
STA 686 Multivariate Analysis 3(3-0)
STA 696 Special Topics in Statistics 1-6(Spec)
STA 697 Independent Study 1-5(Spec)
STA 782 Generalized Linear Models 3(3-0)
STA 784 Theory of Estimation 3(3-0)
STA 797 Independent Study 1-5(Spec)

Strathclyde (STR)

See the Department of History and the current College of Graduate Studies Bulletin for more information. Designates graduate history classes taken at the University of Strathclyde, Scotland.

Social Work (SWK)

See the Department of Sociology, Anthropology, and Social Work for more information.

SWK 100 Introduction to Social Work 3(3-0)
Principles and values of social work, community resources and social service agencies, helping methods, and the role of the professional social worker.

SWK 250 Social Welfare Policies and Services 13(3-0)
History of social welfare and social action. Analysis of American social welfare systems. Links between social policy and needs and impacts on vulnerable groups. Prerequisite: SWK 100.

SWK 300 Crisis Intervention Experience 3(Spec)
Forty-five (45) hours of training and a minimum of 90 hours volunteer work in a local crisis intervention agency. CR/NC only. Prerequisites: permission of instructor.

SWK 302 Social Work Practice in Gerontology 3(3-0)
Theories, interventions, and issues in social work practice in gerontology. Prerequisites: SWK 100; SOC 100; PSY 100 or GRN 247.

SWK 315 Social Work Generalist Practice I: Social Work Communications 3(3-0)
Generalist communication skills through interviewing and information exchange with micro, mezzo and macro client systems. Develop ability to assess information obtained. Prerequisites: SWK 100; completion of 24 credit hours; SWK 250 as prerequisite or co-requisite.

SWK 321 Social Work Generalist Practice II 3(3-0)
Knowledge, skills and values for social work generalist practice with micro, mezzo and macro client systems. Emphasis on culturally-competent and evidence-based practice. Prerequisites: SWK 250, SWK 315, SWK 374, LIB 197; signed social work major equivalent.

SWK 331 Social Work Generalist Practice III 3(3-0)
Generalist social work practice with micro, mezzo and macro systems continued from SWK 315 & SWK 321 with emphasis on the strengths perspective. Prerequisites: SWK 100, SWK 250, SWK 315, SWK 321.

SWK 374 Social Work and Human Behavior I 3(3-0)
Social work and related theories explaining human behavior in individuals, families, groups, organizations and communities with emphasis on early to middle stages of life. Prerequisites: SWK 151 or permission of instructor; SWK 250 as prerequisite or co-requisite; SWK 315 as prerequisite or co-requisite; signed social work major equivalent.

SWK 375 Social Work and Human Behavior II 3(3-0)
Social work and related theories explaining human behavior in individuals, families, groups, organizations & communities with an emphasis on middle to late life stages. Prerequisite: SWK 374.

SWK 397 Independent Study 1-12(Spec)
Directed reading or research on approved topic. Prerequisite: permission of instructor.

SWK 399 Special Topics in Social Work 1-12(Spec)
Consideration of subject matter not included in courses currently listed in the Bulletin.

SWK 422 Youth Welfare 3(3-0)
Issues pertaining to youth welfare are related to broader organizational and structural features of society, including historical and comparative (international) perspectives. Identical to SOC 422. Credit may not be earned in more than one of these courses. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or signed Youth Studies Minor.

SWK 450 Social Welfare Policies and Services II 3(3-0)
Analysis and evaluation of social policies and social welfare services. Emphasis on social action, social and economic justice and impact on at-risk groups. Prerequisites: SWK 250; SOC 221 OR SOC 302; SWK 470 as prerequisite or co-requisite.

Descriptions of courses approved for the University Program appear in italic type.
SWK 470 Social Work Practicum I 4(Spec)
Supervised social work field experience in a social agency. Includes 200 hours in field and 5 seminars. Must be taken within 2 years of completion of course prerequisites. Prerequisites: Signed social work major; SWK 321, SWK 375, SWK 331, and permission of instructor.

SWK 480 Social Work Practicum II 4(Spec)
Continuation of SWK 470 in the same agency. Two hundred (200) hours of supervised field work & 5 seminars. Prerequisite: SWK 470 with a grade of B- or better.

SWK 397 Independent Study 1-12(Spec)
Directed reading or research on approved topic. Permission of instructor required.

SWK 599 Special Topics in Social Work 1-12(Spec)
Consideration of subject matter not included in courses currently listed in the Bulletin.

Theatre and Interpretation (TAI)
See the Department of Communication and Dramatic Arts for more information.

TAI 170 Fundamentals of Interpretative Reading 3(3-0)
General education approach to the art as a dynamic means of analyzing and experiencing literature while communicating it to others. (Group I-B)

TAI 175 Appreciation of the Theatre 3(3-0)
Survey of theatrical principles and practices including units on performance, terminology and organization, architecture, literature, technical theatre, and musical theatre. (Group I-B)

TAI 177 Stagecraft and Stage Lighting 4(4-0)
Basic principles of scenery construction. Theory and principles of basic stage lighting.

TAI 182 Acting I 3(3-0)
Introductory voice and body work with special emphasis through exercises given to energy control and concentration.

TAI 278 Stage Makeup 3(2-2)
Theory and practice in straight and character makeup.

TAI 282 Acting II 3(3-0)
Introduction to emotional technique and characterization through exercises and scenes in individual projects. Prerequisite: TAI 182.

TAI 300 Improvisation 3(2-2)
Creation of spontaneous performances, emphasizing scenes, monologues, and storytelling. Prerequisite: TAI 182.

TAI 302 Voice and Diction 3(3-0)
Theory and practice of principles necessary for improving the speaking voice. Primary emphasis on individual speech improvement.

TAI 305 Studio: Acting/Performance 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of acting/performance. Prerequisite: written permission of instructor.

TAI 306 Studio: Directing 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of directing. Prerequisite: written permission of instructor.

TAI 307 Studio: Movement 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of movement. Prerequisite: written permission of instructor.

TAI 308 Studio: Script Creation 1-4(Spec)
Script creation through adaptation of nondramatic materials or creation of original dramatic material for potential use in laboratory theatre or oral interpretation activities. Prerequisite: written permission of instructor.

TAI 309 Studio: Stage Management 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of stage management. Prerequisite: written permission of instructor.

TAI 310 Studio: Sound 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of sound. Prerequisite: written permission of instructor.

TAI 311 Studio: Properties 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of properties. Prerequisite: written permission of instructor.

TAI 312 Studio: Scenery Construction and Rigging 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of scenery construction and rigging. Prerequisite: written permission of instructor.

TAI 313 Studio: Scenery Design 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of scenery design. Prerequisite: written permission of instructor.

TAI 314 Studio: Lighting 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of lighting. Prerequisite: written permission of instructor.

TAI 315 Studio: Lighting Design 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of lighting design. Prerequisite: written permission of instructor.

TAI 316 Studio: Technical Direction 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of technical direction. Prerequisite: written permission of instructor.

TAI 317 Studio: Costuming 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of costuming. Prerequisite: written permission of instructor.

TAI 318 Studio: Wardrobe Management 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of wardrobe management. Prerequisite: written permission of instructor.

TAI 319 Studio: Makeup 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of stage makeup. Prerequisite: written permission of instructor.

TAI 320 Studio: Theatre Management 1-4(Spec)
Major participation in faculty/staff-supervised university theatre or oral interpretation activities in the area of box-office management. Prerequisite: written permission of instructor.

TAI 371 Readers Theatre 3(3-0)
Scripting and directing alternative texts for performance, including narrative fiction, lyric poetry, personal narratives, and non-fictional prose. Prerequisite: TAI 170

TAI 373 Oral Interpretation for Children 3(3-0)
General education approach to the art of oral interpretation as a dynamic means of experiencing literature for children and communicating it to children.

TAI 376 Interpretation of Drama 3(3-0)
Specialized study of dramatic literature with particular attention to analysis, performance, styles of drama, stage speech, and appropriate dialects. Prerequisite: TAI 170.

TAI 377 Costuming I 3(3-0)
Survey of costume history, Egyptian to the present; introduction to design and construction techniques.

TAI 378 Stage Combat 3(2-2)
Basic principles of stage combat as they apply to hand-to-hand, quarter-staff, and rapier-and-dagger techniques. Prerequisite: TAI 182.

TAI 379 Acting for the Camera 3(3-0)
The creative process and special technical aspects of acting for the camera. Prerequisites: TAI 182.

TAI 380 Musical Theatre History 3(3-0)
Examination of American Musical Theatre history and forms from 1866 to the present.

TAI 382 Acting III 3(3-0)
Period movement patterns, pantomime techniques, and regional and cultural dialects, with individual scenes prepared for critical evaluation. Prerequisites: TAI 182, TAI 282.

TAI 383 Voice For The Actor 3(3-0)
Vocal techniques for actors. Designed to provide the student with a general understanding of vocal technique and theory, as they apply to characterization and acting. Prerequisites: TAI 182, TAI 302.

TAI 384 Movement for the Actor 3(3-0)
Movement techniques for actors. Designed to provide the student with a general understanding of movement technique and theory, as it applies to characterization and acting. Prerequisite: TAI 182.

TAI 452 Music Theatre Performance 3(2-2)

TAI 460 BFA Capstone Project 3(0-6)
Major capstone project in theatre (including music theatre) and/or interpretation. Prerequisite: Must be approved by TAI or Music Theatre faculty/staff advisor(s) prior to registration. Must be completed in final year of study.
TAI 476 Lighting Design 3(3-0)
Theory and application of basic principles used in designing lighting for the theatre. Prerequisite: TAI 177. Recommended: TAI 314.

TAI 477 Scene Design 3(3-0)
Theory and application of basic principles used in designing scenery for the theatre. Prerequisite: TAI 177.

TAI 478 Theatre Management 3(3-0)
Concepts and methods of theatre management and promotion: box-office procedures, house management, and publicity.

TAI 481 Directing 3(3-0)
Responsibilities, philosophies, and techniques of the stage director. Emphasis on preparation of scenes for evaluation. Prerequisite: TAI 182.

TAI 490 Independent Study 1-4(Spec)
Student-initiated study guided by faculty member or faculty committee. Undergraduate prerequisites: an overall B average, permission of advisor and instructor (and completion of form).

TAI 499 Senior Capstone 3(3-0)
Capstone course that integrates academic and production experiences in theatre with students' career goals. Prerequisites: senior standing and completion of 50 hours of the TAI major.

TAI 569 History of American Theatre 3(3-0)
Development of drama and theatre in America from colonial times to the present. Prerequisites: 6 hours of TAI coursework or permission of instructor.

TAI 570 Oral Interpretation of Prose Fiction 3(3-0)
Specialized study of the short story and novel, in both individual and group performances. Prerequisites: one course in oral interpretation; one course in fictional literature.

TAI 571 Oral Interpretation of Poetry 3(3-0)
Specialized study of poetry. Prerequisites: one course in oral interpretation and one course in poetic literature.

TAI 572 Special Topics in Oral Interpretation 1-6(Spec)
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 9 hours. Prerequisite: one course in oral interpretation and/or a major in English.

TAI 573 Seminar: Interpretive Reading 3(3-0)
History of the art of interpretative reading, its current theories and possible trends. Prerequisite: one course in interpretative reading.

TAI 574 History of Drama and Theatre I 3(3-0)
Development of drama and theatre in Western Culture from ancient origins to 1700. Prerequisites: 6 hours of TAI coursework or permission of instructor.

TAI 575 History of Drama and Theatre II 3(3-0)
Continuation of TAI 574. History of Drama and Theatre I. Development of drama and theatre in Western Culture from 1700 to 1945. Prerequisites: 6 hours of TAI coursework or permission of instructor.

TAI 577 Special Topics in Technical Theatre 1-9(Spec)
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 9 hours. Prerequisites: Two from the following: TAI 177, TAI 278, TAI 377, TAI 477.

TAI 578 Special Topics in Theatre I 1-9(Spec)
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 9 hours. Prerequisites: Two under-graduate courses in theatrical production or equivalent.

TAI 579 Costume Design and Construction 3(3-0)
Concentration in the problems of design, pattern drafting, and construction of costumes for the theatre. Prerequisites: TAI 377; HEV 140 or equivalent.

TAI 580 Dramatic Theory and Criticism 3(3-0)
Analysis of significant theories of theatre and drama. Prerequisite: TAI 574 or TAI 575, or permission of instructor.

TAI 581 Advanced Directing 3(3-0)
Continuation of TAI 481. Directing. Emphasis on the rehearsal and performance of one-act plays for public presentation. Prerequisites: TAI 177 and TAI 481. Admission by approval of instructor only (contact SCDA office for procedure).

TAI 583 Women in the Contemporary American Theatre 3(3-0)
Examines the contributions of women producers, directors, playwrights, actors, designers, and critics to the development of the contemporary American theatre. Prerequisites: 6 hours of TAI coursework or permission of instructor.

TAI 584 Field Course in Theatre 1-4(Spec)
A travel course to metropolitan theatrical productions and institutions. Required are a pre-travel reading program and final reaction/evaluation paper.

TAI 585 Creative Dramatics 3(2-2)
Techniques of guiding children through original dramatizations. Primarily for the classroom teacher.

TAI 586 Playwriting 3(3-0)
Theory and practice in writing original plays; discussion and critical evaluation of student plays. Prerequisites: ENG 201; ENG 294 or one course in history of drama and theatre; or permission of instructor.

TAI 588 Contemporary Theatre 3(3-0)
Development of drama and theater in Western Culture from 1945 to the present. Prerequisites: 6 hours of TAI coursework; or permission of instructor.

TAI 589 Theatre Workshop 2-6(Spec)
Theoretical and practical study of the production of the University Theatre. Prerequisite: minimum of one course in theatre.

TAI 590 Summer Repertory Theatre 3(3-0)
Intensive practical theatre experience in the repertory situation under professional direction and guidance. Prerequisite: applicant admitted to course only through audition.

For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

TAI 602 Modern Performance Theory 3(3-0)

TAI 619 Continuing Registration for Final Research Project 1-1(Spec)

TAI 790 Advanced Independent Study 1-4(Spec)

TAI 796 Thesis 1-6(Spec)

Technology (TEC)

See the Department of Engineering and Technology for more information.

TEC 222 Introduction to Computer-Aided Technology for Vehicle Design 3(2-2)
Introduction to computer-aided technology specific to designing vehicles in a global market. Emphasis on part design as applied to surface and solid part modeling. Prerequisite: IET 154

TEC 297 Special Topics 1-6(Spec)
Variable credit, variable content courses with credit and specific topics identified in the Class Schedule book. Prerequisites: permission of instructor.

TEC 320 Vehicle Systems and Design Terminology 3(3-0)
A comprehensive review of automobile systems and components for the student who is interested in vehicle design. Focus is on terminology and system and component interdependence. Prerequisites: minimum of two years vehicle design work experience or minimum of 6 semester hours of drafting and descriptive geometry plus 6 semester hours of computer-aided design credit.

TEC 321 Technical Creativity 3(3-0)
A study of individual and group creative processes related to the design of new products and the application of new technologies. Prerequisites: TEC 320 or permission of instructor.

TEC 322 Intermediate Computer-Aided Technology for Vehicle Design 3(2-2)
Intermediate computer-aided technology specific to advance part design as applied to surface and solid part modeling in designing vehicles in a global market. Prerequisite: TEC 222

TEC 323 Materials and Applications in Vehicle Design 3(3-0)
The study of various vehicle design applications and mechanical properties of steel, aluminum, composites, and plastics used in vehicle manufacturing. Prerequisites: IET 154 or equivalent; IET 359 or equivalent; TEC 320.

TEC 324 Finite Element Modeling and Analysis 3(2-2)
CAD solutions and strategies utilizing solid and surface modeling meshing for advanced automotive design applications, setting of loads and restraints. Prerequisites: IET 379, TEC 322

TEC 325 Design for Manufacturing and Assembly 3(3-0)
A study of relationships between vehicle design, manufacturing, and assembly. Design constraints imposed by manufacturing processes and design's impact on product quality and cost. Prerequisite: TEC 325 or permission of instructor.

TEC 326 Vehicle Systems and Design Requirements 3(3-0)
Automotive systems with focus on interdependence of components and assembly systems with concern for manufacturing quality, maintenance and ergonomic good design/bad design. Prerequisites: IET 428, TEC 324

TEC 327 Design Creativity and Value Methodology 3(3-0)
Creative processes utilizing team approaches during initial design as well as product improvement. Emphasis is on product value and customer satisfaction. Prerequisites: TEC 325

TEC 328 Materials and Applications in Vehicle Design 3(3-0)
Physical properties of ferrous and non-ferrous metals as well as polymers and composites. Various molding, forming, and fabrication techniques are included. Prerequisites: TEC 326, IET 379

TEC 350 Vehicle Packaging 3(3-0)
Vehicle designs for occupant packaging, seating arrangements, vision requirements, luggage storage, ground to bumper requirements, component dimensions, and legal/government design criteria, standards, and regulations. Prerequisites: TEC 320 or permission of instructor.

TEC 376 Metal Forming 3(3-0)
Design techniques and applications related to cutting, forming, and maintaining design tolerances; related industrial history, and the functions of die engineering departments will be covered. Prerequisites: TEC 325 or permission of instructor.
TEC 377 Vehicle Related Metal Forming and Shaping 3(3-0)
Design and development functions related to tooling, fixtures, gages, and dies. Emphasis on vehicle manufacture and includes basic process planning, design tolerance, and process selection. Prerequisites: TEC 326

TEC 378 Vehicle Manufacturing, Assembly and Process Planning 3(3-0)
Interface between vehicle design, manufacturing and assembly process planning. Design impact on manufacturing process, product quality and cost is included. Prerequisites: TEC 326

TEC 397 Special Topics 1-6(Spec)
Variable credit, variable content courses with credit and specific topics identified in the Class Schedule book. Prerequisites: permission of instructor.

TEC 420 Value Methodology in Vehicle Design 3(3-0)
Methods for improving product value and enhancing customer satisfaction in industrial projects utilizing a team approach. Prerequisites: TEC 320, TEC 321, TEC 323; or instructor permission.

TEC 441 Vehicle Interior Cockpit Design 3(3-0)
Vehicle cockpit design emphasizing occupant placement and location relationships with interior components together with the design integrations process. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 442 Vehicle Interior Trim Design 3(3-0)
A study of design processes and techniques associated with designing vehicle interior components including door trim, headliners, floor coverings, seats, and other interior systems. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 443 Ergonomics and Vehicle Design 3(3-0)
The study of ergonomic principles and their use in the design of vehicles with particular emphasis on operation, manufacturing, and maintenance characteristics. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 444 Vehicle Electrical Design 3(3-0)
Electrical wire harness design and electrical component packaging covering electrical system and subsystem requirements, functions, and component assembly. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 445 Vehicle Architecture Systems 3(3-0)
Packaging of occupants, seating and vision requirements, storage needs, bumper design requirements consistent with federal and international standards and regulations. Prerequisites: TEC 326

TEC 446 Vehicle Body Systems Design 3(3-0)
Body design with an emphasis on structural strength, overall performance, together with occupant comfort and safety. Introduces chassis and suspension systems. Prerequisites: TEC 329

TEC 447 Vehicle Interior Systems Design 3(3-0)
Interior trim and instrument panel design concepts related to component selection. Emphasis is on component location, relationships and the overall design integration process. Prerequisites: TEC 326

TEC 448 Vehicle Chassis and Suspension Systems 3(3-0)
Control systems operation including steering, braking, and suspension as they relate to the design of vehicle chassis configurations and packaging. Prerequisites: TEC 326

TEC 449 Vehicle Power Train Propulsion Systems 3(3-0)
Operational characteristics of reciprocating, rotary, electric, and hybrid systems. Various fuel types are introduced. Includes drive train assemblies and components packaging. Prerequisites: TEC 328

TEC 450 Vehicle Electrical and Lighting Systems 3(3-0)
Electrical, lighting, and subsystem requirements to include wiring harness design, component packaging, exterior and interior lighting and signaling requirements, and component assemblies. Prerequisites: TEC 328

TEC 451 Vehicle HVAC Systems 3(3-0)
Automotive HVAC systems and their subsystem requirements. Current OEM automotive systems, design criteria, components, occupant comfort, controls interface, duct design, manufacturing, environmental and regulatory requirements. Prerequisites: TEC 328

TEC 452 Vehicle Body Structure Design 3(3-0)
Basic automobile body design from a structural perspective relative to strength, vehicle performance, passenger comfort, and safety. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 454 Vehicle Instrument Panel Design 3(3-0)
Instrument panel design emphasizing occupant placement and location relationships with instrument panel components, together with the design integration process. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 456 Vehicle Lighting Systems Design 3(3-0)
Design and engineering principles applied to exterior, interior, and signaling lighting systems. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 457 Vehicle Bumper System Design 3(3-0)
Design and packaging of automotive bumper systems, including energy management, federal and international regulations, molding of parts, and assembly of bumper systems. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.

TEC 459 Vehicle Design Analysis and Integration 3(3-0)
A capstone course which requires a vehicle design project showing the interface with affected departments, time constraints, and manufacturing/assemblsy implementation. Prerequisites: ENG 303, TEC 324 and Permission of Director. Graduating seniors only.

TEC 497 Special Topics 1-6(Spec)
Variable credit, variable content courses with credit and specific topics identified in the Class Schedule book. Prerequisite: permission of instructor. For 600 and 700 level course descriptions, consult the current College of Graduate Studies Bulletin.

TEC 600 Introduction to Technology 3(3-0)

TEC 700 Readings in Technology 3(3-0)

Women’s Studies (WST)
See the Interdisciplinary Women’s Studies Major and Minor for more information, or contact the Women’s Studies Office.

WST 202 Women’s Health 3(3-0)
Study of women’s health, including reproductive health issues and female health problems. Emphasis on knowledge for active participation in health care, healthy lifestyles, and preventive measures. Identical to HSC 202. Credit may not be earned in more than one of these courses.

WST 207 Women in Religion 3(3-0)
The place and image of women in major religious traditions. Emphasis on current literature about religious reform, creation of alternative institutions, and new concepts of spirituality. Identical to REL 207. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 213 Introduction to Human Sexuality 3(3-0)
Human sexual development throughout the human life cycle. Emphasis on understanding and acceptance of self as a sexually functioning person. Identical to HEV 213. Credit may not be earned in more than one of these courses.

WST 214 Sociology of Sexuality 3(3-0)
Sociological examination of human sexuality, sexual identity and community. Identical to SOC 214. Credit may not be earned in more than one of these courses. Prerequisite: SOC 100. Recommended: Or permission of instructor.

WST 221 Growing Up in America 3(3-0)
Child rearing, education, social experiences, search for identity, and finding a career from colonial times to the present. Emphasis on late nineteenth and twentieth centuries. Identical to HST 221. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 230 Women in the Economy 3(3-0)
A study of the past and present role of women in the economy, as workers, both inside and outside the labor market. Identical to ECO 230. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 297 Special Topics in Women’s Studies 3-6(Spec)
Course covers special topics of interest to Women’s Studies not covered in existing courses. Course title will be listed on student’s transcript.

WST 303 Goddesses 3(3-0)
Interdisciplinary study of nature and role of goddesses in selected cultures, ancient and modern. Examination of issues raised when contemporary groups employ/reinvent goddess concepts. Identical to REL 303. Credit may not be earned in more than one of these courses.

WST 317 Sociology of Sex and Gender 3(3-0)
Analysis of the role of gender in institutions such as the economy, the family and the schools. Gender inequality and factors that promote its reproduction. Identical to SOC 317. Credit may not be earned in more than one of these courses. Recommended: One of the following: SOC 100 or 201 or 221.

WST 319 Women and Sport 2(2-0)
An investigation of the motivational and social implications of women’s participation in sport. Identical to PES 319. Credit may not be earned in more than one of these courses.

WST 325 Women and the Law 3(3-0)
Examines perceptions and behavior toward women and their struggle for change so as to achieve gender equality through use of the law. Identical to REL 325. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 326 Women and Politics 3(3-0)
This course will look primarily at empirical studies of women’s role in politics in the U.S. but also in other contexts. Identical to PSC 326. Credit may not be earned in more than one of these courses. (Group IV-A)

Descriptions of courses approved for the University Program appear in italic type.
WST 327 Women Writers 3(3-0)
Readings in fiction, poetry, and autobiography by women writers of the nineteenth and twentieth centuries, approached through contemporary feminist views. Identical to ENG 327. Credit may not be earned in more than one of these courses.

WST 328 Women in America 3(3-0)
Study of the traditional position of women in American society as documented in historical, literary, and biographical sources. Identical to HST 326. Credit may not be earned in more than one of these courses. (Group I-A)

WST 334 Psychology of Women 3(3-0)
Explores psychological issues pertaining specifically to women in the following areas: affective and cognitive functioning, personality theories, adult role behaviors, sexuality and physical and mental health. Identical to PSY 334. Credit may not be earned in more than one of these courses. (Group III-A)

WST 354 Women in European History 3(3-0)
Surveys and analyzes the traditional and nontraditional roles of women in European history, using new historical research. Identical to HST 354. Credit may not be earned in more than one of these courses.

WST 362 Gender Communication 3(3-0)
Focuses on the role of communication in the creation and perpetuation of gender stereotypes. Emphasis on personal growth and awareness in a variety of contexts. Identical to COM 362. Credit may not be earned in more than one of these courses.

WST 382 Women and Art 3(3-0)
Women's identities as artists, patrons, viewers, and subjects of representation, their changes historically, and their relationship to definitions of art. Identical to ART 382. Credit may not be earned in more than one of these courses.

WST 410 Women, Crime and Deviance 3(3-0)
Theories and concepts fundamental to reconceptualizing women's relationships to crime and "deviance." Violence against women, women as victims and offenders, poverty, and "deviant" sexualities. Identical to SOC 410. Credit may not be earned in more than one of these courses. Prerequisites: SOC 300, SOC 301; or signed Women's Studies major or minor.

WST 426 Feminist Theory 3(3-0)
Examines the way women have been described by the Western philosophical tradition from its beginnings to the present and offers alternative analyses to this tradition. Identical to PSC 426 and PHL 426. Credit may not be earned in more than one of these courses. Prerequisites: permission of instructor, or at least junior standing and either one course in philosophy or one of the following courses: PSC 275, PSC 325, PSC 371, PSC 373, or PSC 378.

WST 430 Women and Aging 3(3-0)
Multiple theoretical perspectives examine the status of older women, individual psychological, social and physical development, roles in family and society, and policy implications. Identical to GRN 430. Credit may not be earned in more than one of these courses. Prerequisite: GRN 247 or PSY 325 or HSC 390.

WST 496 Capstone Seminar in Women's Studies 3(3-0)
A multi-disciplinary capstone course in Women's Studies integrating various approaches to feminist theory and methodology. Experiences of women of diverse backgrounds will be examined. Prerequisites: PHL 426/WST426 and 9 additional hours in Women's Studies.

WST 497 Special Topics in Women's Studies 3-6(Spec)
Course covers special topics of interest to Women's Studies not covered in existing courses. Course title will be listed on student's transcript.

WST 590 Gender, Culture, and Society 3(3-0)
Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to ANT 590 and SOC 590. Credit may not be earned in more than one of these courses. Prerequisites: 6 hours of anthropology and/or sociology and/or women's studies, or permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
**Senior Officers 2008**

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SHARON LEE DENI (1979-1999) DIRECTOR, MUSIC EVENTS, SCHOOL OF MUSIC
JAMES W. DENING (1970-1997) DIRECTOR, COMPUTER SERVICES
BERNADINE N. DENNING (1980-1991) TRUSTEE, BOARD OF TRUSTEES
LAWRENCE A. DENNIS (1969-2000) MANAGER, INFORMATION TECHNOLOGY
HERBERT W. DERO MEDI (1967-2006) DIRECTOR, ATHLETICS
NORMAN H. DEUNK (1984-1993) PROFESSOR, MANAGEMENT
GASTON D. D’HA ML ECOURT (1967-1984) PROFESSOR, ENGINEERING AND TECHNOLOGY
BURTON DICKERSON (1964-1983) PROFESSOR, ART
RICHARD V. DIETRICH (1969-1986) PROFESSOR, GEOLOGY
NORMAN CARL DIETZ (1946-1979) PROFESSOR, SCHOOL OF MUSIC
JOHN DINSE (1971-2000) ASSOCIATE PROFESSOR, POLITICAL SCIENCE
JENNY E. DIONISE (1961-1987) UNIT MANAGER, DINING SERVICES
JOY L. DOREMIRE (1968-1994) ASSISTANT DIRECTOR, SCHOLARSHIPS & FINANCIAL AID
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ARLENE K. DUNHAM (1981-2002) ASST. DIRECTOR, UNDERGRADUATE ACADEMIC SERVICES, REGISTRAR’S OFFICE
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CHARLES M. EBEL (1971-2005) PROFESSOR, HISTORY
WOODROW J. EBER (1948-1975) PROFESSOR, SCHOOL OF ACCOUNTING
LOUIS GENE ECKER (1968-1997) PROFESSOR, ENGINEERING AND TECHNOLOGY
CHARLES F. EISZLER (1970-2005) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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JACK EVANS (1965-1992) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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CARLTON FANCHER (1963-1998) ASSISTANT PROFESSOR, HEALTH PROMOTION & REHABILITATION
WILLIAM EDWARD FARLEY (1971-1991) PROFESSOR, PHYSICAL EDUCATION & SPORT
CHRISTINE L. FAUVER (1987-2005) STUDENT SERVICES

COORDINATOR/INTERNATIONAL PROGRAM, PROFED - ON CAMPUS
LYNN N. FAUVER (1972-2006) DIRECTOR, MUSEUM OF CULTURAL & NATURAL HISTORY
RICHARD D. FEATHERINGHAM (1971-2007) PROFESSOR, BUSINESS INFORMATION SYSTEMS
HANS F. FETTING (1965-1995) PROFESSOR, ENGLISH
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RICHARD J. FLEMING (1982-2007) PROFESSOR, MATHEMATICS
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RICHARD WILLIAM FOX (1987-2007) PROFESSOR, COUNSELING AND SPECIAL EDUCATION
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ROGER N. FRELING (1967-2000) ASSISTANT PROFESSOR, ENGLISH
FRANK J. FRICK (1957-1988) ADMINISTRATOR, DINING SERVICES
PETER H. FRIES (1971-2004) PROFESSOR, ENGLISH
JOHN A. FRISCH (1988-2007) DIRECTOR, EDUCATION MATERIALS CENTER, PROFED - ON CAMPUS
NEDRA K. FRUDGE (1983-2007) ASSOCIATE PROFESSOR, ART
GERALD FULLER (1966-1987) PROFESSOR, PSYCHOLOGY
HENRY L. FULTON (1967-2000) PROFESSOR, ENGLISH
PAMELA ANN FULTZ (1983-2006) ASSISTANT DIRECTOR/UNDERGRADUATE ACADEMIC SERVICES, REGISTRAR’S OFFICE
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A. RILEY GASKILL (1953-1980) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
HILL GATES (1971-1994) PROFESSOR, SOCIOLOGY, ANTHROPOLOGY & SOCIAL WORK
LORNA I. GATES (1979-2000) OFFICE MANAGER, CENTRAL MAILROOM
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SHIRLEY M. GEURTS (1976-1997) PROGRAM ADMINISTRATOR, EXTENDED LEARNING
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ANITA C. GORHAM (1989-2007) ASSOCIATE DIRECTOR/CENTER PROFESSIONAL EXCELLENCE, PROFED - OFF CAMPUS
DUANE PATRICK GOUPELL (1974-2003) DIRECTOR, CENTER FOR LEARNING ASSESSMENT SERVICES
JANET L. GRAHAM (1978-2000) ADMINISTRATIVE ASSISTANT, INFORMATION TECHNOLOGY
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DALE D. GUST (1970-2008) PROFESSOR, BUSINESS INFORMATION SYSTEMS
KATHLEEN HAGEN (1970-1998) RESIDENCE LIFE, RESIDENCES & AUXILIARY SRVCS.
BRUCE M.C. PAPE (1968-2004) ASSISTANT PROFESSOR, GEOGRAPHY
RICHARD A. PARFIT (1962-1986) PROFESSOR, PHYSICAL EDUCATION & SPORT
ELLIOTT S. PARKER (1976-2007) PROFESSOR, JOURNALISM
IVAN PARKINS (1967-1982) PROFESSOR, POLITICAL SCIENCE
GEORGE J. PELLERIN (1963-1998) ASSISTANT PROFESSOR, BIOLOGY
THOMAS LEE PENNEWELL (1969-2002) ASSOCIATE PROFESSOR, PHYSICAL EDUCATION & SPORT
QUENTIN PETERSEN (1973-1998) PROFESSOR, CHEMISTRY
THOMAS C. PETERSON (1972-2001) ASSOCIATE PROFESSOR, ECONOMICS
JOHN W. PETRAS (1966-2001) PROFESSOR, SOCIOLOGY, ANTHROPOLOGY & SOCIAL WORK
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NANCY PIETRASZKIEWICZ (1982-2006) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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MAUREEN RONDY (1973-2003) ACADEMIC ADVISOR, ACADEMIC ADVISING & ASSISTANCE
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ROBERT A. SANCHEZ (1967-2000) PROFESSOR, GEOGRAPHY
ROSEMARY C. SAUNDERS (1987-1994) REGISTERED NURSE, UNIVERSITY HEALTH SERVICES
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LINDA SCHLEIG (1992-2005) ASSISTANT DIRECTOR, REGISTRAR’S OFFICE
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SANDRA CECILIA SEATON (1990-2004) PROFESSOR, ENGLISH
PAUL F. SEESTEDT (1978-2006) ASSISTANT ATHLETIC DIRECTOR/DIRECTOR OF IAC, ATHLETICS
RICHARD D. SEITER (1970-2004) PROFESSOR, ENGLISH
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VICENTE SERRA (1978-1998) ASSOCIATE PROFESSOR, FOREIGN LANGUAGES, LITERATURES & CULTURES
ROBERT F. SEVERSON, JR. (1972-1990) PROFESSOR, ECONOMICS
SHARON A. SHAH (1971-2003) OFFICE MANAGER, PARKING SERVICES, PUBLIC SAFETY
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MICHAEL H. SIMKINS (1977-2004) ASSISTANT DIRECTOR, BUILDING SERVICES, FACILITIES MANAGEMENT
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JAMES J. SMOLKO (1974-1992) ASSOCIATE PROFESSOR, SCHOOL OF MUSIC
TIMOTHY M. SNELLENBERGER (1978-2003) ASSOCIATE DIRECTOR, COMPUTER OPERATIONS, INFORMATION TECHNOLOGY
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GLENN J. STACY (1963-1982) SENIOR BUYER, CONTRACTING & PURCHASING SERVICES
FRANK ANTHONY STANCATO (1968-2006) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
GEORGE E. STANSBERRY (1959-1984) SUPERINTENDENT, GROUNDS/PHYSICAL PLANT, FACILITIES MANAGEMENT
LORRAINE C. STANSBERRY (1968-1986) UNIT MANAGER, DINING SERVICES
GILBERT D. STARKS (1975-2006) ASSOCIATE PROFESSOR, BIOLOGY
GEORGE L. STENGREN (1970-1997) PROFESSOR, PHILOSOPHY & RELIGION
NEIL STORY (1972-1998) ASSOCIATE PROFESSOR, MANAGEMENT & LAW
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JERRY S. STROUSE (1970-2006) PROFESSOR, HUMAN ENVIRONMENTAL STUDIES
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JOHN W. SWANSTROM (1968-2000) PROFESSOR, ART
WILLIAM L. SWART (1967-1988) PROFESSOR, MATHEMATICS
BARBARA S. TAYLOR (1976-2007) DIRECTOR, FACULTY PERSONNEL SERVICES
DENNIS J. THAVENET (1967-1997) PROFESSOR, HISTORY
WILLIAM VANZYL THEUNISSEN (1948-1988) DEAN/PROFESSOR, COLLEGE OF EDUCATION AND HUMAN SERVICES
LARRY LEE THOMAS (1967-2007) PROFESSOR, BUSINESS INFORMATION SYSTEMS
STACY W. THOMPSON (1964-2002) PROFESSOR, ENGLISH
ALICE TOMBOLIAN (1981-1989) TRUSTEE, BOARD OF TRUSTEES
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KAREL TOPINKA (1967-1987) PROFESSOR, FOREIGN LANGUAGES, LITERATURES & CULTURES
REBECA TORRES-RIVERA (1988-2004) ASSOCIATE PROFESSOR, FOREIGN LANGUAGES, LITERATURES & CULTURES
HAROLD WILLIAM TREMAIN (1967-1988) PROFESSOR, SCHOOL OF ACCOUNTING
THOMAS M. TRESH (1971-1998) ASSISTANT BASEBALL COACH, ATHLETICS
JAMES A. TRYON (1979-1998) CHIEF PROJECT MANAGER, FACILITIES MANAGEMENT
JERRY R. TUBBS (1964-1990) VICE PRESIDENT, BUSINESS & FINANCE
MICHAEL J. TURNER (1967-1998) MANAGER, BOOKSTORE
THERESA T. TURNER (1979-2003) CHIEF MEDICAL TECHNICIAN, UNIVERSITY HEALTH SERVICES
KATHLEEN M. UTCHE (1977-2006) PROFESSOR, MANAGEMENT
DOUGLAS A. VALEK (1971-2006) ASSOCIATE PROFESSOR, BIOLOGY
WILLIAM E. VALLE (1964-2000) SCENERY/LIGHTING DESIGNER, COMMUNICATION AND DRAMATIC ARTS
SUZANNE VANNORDSALL (1960-1985) EXECUTIVE AIDE, PUBLIC RELATIONS & MARKETING
NEIL L. VANSLYCKLE (1971-1991) MANAGER, RETIREMENT & WORKMENS COMP, HUMAN RESOURCES/staff
JANIS M. VOEGE (1976-2002) PROFESSOR, HUMAN ENVIRONMENTAL STUDIES
JANET WAGENER (1974-2001) EXECUTIVE ASSISTANT TO THE PRESIDENT, PRESIDENT’S OFFICE
JERRIE WAGGONER (1966-1983) ADMINISTRATOR, SCHOLARSHIPS & FINANCIAL AID
WILBUR J. WAGGONER (1965-1987) PROFESSOR, MATHEMATICS
J. B. WALDEN (1971-1989) PROFESSOR, INFORMATION SYSTEMS AND ANALYSIS, INFORMATION SYSTEMS
EDWARD J. WALSH (1975-1997) ASSISTANT PROFESSOR, LITERATURES & CULTURES
KATHERINE L. WALSH (1976-2000) ASSISTANT PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
SYDNEY C. WALSTON (1971-2001) PROFESSOR, HEALTH PROMOTION & REHABILITATION
MARY R. WARDROP (1977-1990) PROFESSOR, MATHEMATICS
JOHN P. WARRINER (1967-2001) ASSOCIATE PROFESSOR, CHEMISTRY
EUNICE WAY (1971-1986) PROFESSOR, PHYSICAL EDUCATION & SPORT
JOHN W. WEATHERFORD (1970-1988) DIRECTOR, LIBRARIES
JAMES ARTHUR WEBB (1972-1998) ASSISTANT MANAGER, BOOKSTORE
LEONE H. WEBER (1968-1993) MANAGER, CREATIVE ARTS GALLERY
ROBERT S. WELSH (1972-2006) PROFESSOR, MARKETING AND HOSPITALITY SERVICES ADMIN.
T. EDWARD WESTEN (1975-1998) PROFESSOR, POLITICAL SCIENCE
DAVID L. WHITNEY (1988-2000) PROFESSOR, MARKETING AND HOSPITALITY SERVICES ADMIN.
JOYCE E. WILLIAMS (1986-1999) ASSOCIATE PROFESSOR, COUNSELING CENTER
RONALD LEE WILLIAMS (1971-2002) DIRECTOR, CMU POLICE, PUBLIC SAFETY
BEATRICE WINDGASTON (1978-2003) COORDINATOR, ADMINISTRATIVE SERVICES, RESIDENCE LIFE
CAROL LEE WOJCICK (1989-2005) DIRECTOR, STUDENT DISABILITY SERVICES
JAMES J. WOJCICK (1966-2001) DIRECTOR, STUDENT PUBLICATIONS
MARGARET JEAN WOLF (1949-1984) ASSOCIATE DIRECTOR, SCHOLARSHIPS & FINANCIAL AID
MARGARET L. WOODLEY (1968-1987) REGISTER’S OFFICE
DANIEL EVERET WYLIE (1963-2004) PROFESSOR, BIOLOGY
FORREST WYRICK (1977-2000) ASSISTANT MANAGER/FACILITIES TECHNICIAN, UNIVERSITY RECREATION
JOHN YANTIS (1968-1997) PROFESSOR, EDUCATIONAL LEADERSHIP
JOAN YEH (1966-1989) ASSISTANT DIRECTOR, ACADEMIC ASSISTANCE PROGRAMS
JANET YERBY (1980-2002) PROFESSOR, COMMUNICATION AND DRAMATIC ARTS
CAROL A. YOUNG (1973-1996) ASSISTANT PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
JOHN F. YOUNT (1994-2005) ASSISTANT DIRECTOR, CENTRAL ENERGY AND UTILITIES, FACILITIES MANAGEMENT
ROBERT STANLEY YUILL (1971-1997) PROFESSOR, GEOGRAPHY
HELENE L. ZIMMERMAN (1976-2000) PROFESSOR, INFORMATION SYSTEMS
THADDEUS C. ZOLTY (1968-1998) PROFESSOR, POLITICAL SCIENCE
MARILYN JEAN ZORN (1965-1989) PROFESSOR, ENGLISH
HABIB A. ZUBERI (1971-2000) PROFESSOR, ECONOMICS
Code of Student Rights, Responsibilities and Disciplinary Procedures

1. Preamble

The students, faculty, and staff of Central Michigan University constitute an academic community which is committed to the preservation, communication, and discovery of knowledge, and to the active pursuit of truth. Consistent with this purpose, the University recognizes its obligation to afford each student the opportunity to develop his or her educational potential while retaining free exercise of rights and freedoms as a citizen. Such opportunity should be limited only by the necessity of insuring equality of opportunity to all students, and by the corollary requirement of orderly operation of the educational processes. Each member of the Central Michigan University community assumes an obligation regarding self conduct to act in a manner consistent with a respect for the rights of others and with the University’s function as an educational institution. As guides for individual and group actions within this community, the University affirms the following general principles of conduct. These principles serve as the basis for regulations concerning student conduct.

1.1 The community requires a system of order supportive of the educational process which is the purpose of the University. Primary responsibility for preserving the system of order rests upon the individuals making up the community. Each individual must accept responsibility for his or her actions and values and for recognizing that such actions and values affect the whole community. Implicit in the community’s recognition of the rights of the individual is an obligation on the part of the individual to accept responsibilities toward the community.

1.2 Even though there is a diversity of opinion regarding many ethical and moral standards, each person should endeavor to maintain self conduct in a manner consistent with respect for others and thoughtful consideration for the needs of society. In social relationships generally, including relations involving the civil, property, and personal rights of others, each individual has an obligation to act in a manner consistent with these fundamental values.

1.3 The educational function depends upon honesty, integrity, and respect for truth. Any action not consistent with these principles is unacceptable.

1.4 As part of the democratic tradition, members of the community should be free to study and act upon social issues, including issues affecting the University. Each person ought to learn and practice the art of thoughtfully examining controversial issues, expressing views individually and as a group member responsibly, and in a manner that is consistent with the educational purpose of the University.

1.5 The University community recognizes the need for the development of personal ethics and philosophies. The members of this community should be committed to broad personal growth and development in society, realizing that each individual has both the freedom and obligation to make ethical choices and to accept the attendant responsibilities.

2. Student Rights

Free inquiry and free expression are essential attributes of a community of scholars. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus generally, and in the community at large. The responsibility to secure and respect general conditions conducive to the freedom to learn is shared by all members of the University community. Students should strive to develop the capacity for critical judgment and the ability to engage in a sustained and independent search for truth, while endeavoring to exercise their freedom with maturity and responsibility. As students undertake to fulfill the obligations and duties outlined in this document, the University community of which they are a part undertakes to respect the basic freedoms of students.

2.1 Rights of Students

In recognition of students’ rights and dignity as members of the University community, Central Michigan University 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 Trustees.

2.1.1 Students have the right to free inquiry, expression and association.

2.1.2 Students have the right to editorial freedom in student publications and other student media, e.g. CM Life, Framework, WMHW, MHTV.

2.1.3 Students have the right to representation on the appropriate, designated bodies.

2.1.4 Students accused of misconduct or of violating University policy have the right to have a determination of their violation or non-violation in accordance with University procedures.

2.1.5 Students have the right to protection against improper disclosure of their student records.

2.1.6 Students have the right of access to their personal educational records.

2.1.7 Students have the right to be informed by the faculty near the beginning of their educational process of the University’s policies, and to express opinions publicly and privately.

2.1.8 Students have the right to educational programs that meet the objectives of the master syllabus, to teaching consistent with those objectives, and to a learning environment that encourages the students’ engagement with their education.

2.1.9 Students have the right to be informed by the faculty near the beginning of each course about course requirements, evaluation procedures, and evaluation criteria to be used, and the right to expect that those criteria be enforced. Faculty have the authority to change a course syllabus after the beginning of the semester and are expected to inform students of these changes in a timely manner.

2.1.10 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.

2.1.11 Students have the right to be evaluated solely on relevant academic criteria and to have protection against arbitrary or capricious academic evaluation as described in the “Grade Grievance Policy” in the University Bulletin.

2.1.12 Students have the right to request and receive timely assessment of their academic work by the instructor, or in the case of graduate students by their thesis/dissertation/Plan B committee chairperson and committee members.

2.1.13 Students have the right to request and receive a reasonable and timely review of their grades by the instructor.

2.1.14 Students have the right of complaint about academic matters if they believe their rights have been violated. When not covered by another policy, a complaint is properly filed by presenting the issue first to the faculty member or thesis, doctoral research project or dissertation committee chairperson. If not resolved, the student may take the issue to the department chairperson. If not resolved at this level, the student may take the complaint to the office of the dean of the academic college or the Dean of the College of Graduate Studies.

2.2 Relationships with the University

2.2.1 As citizens, students have the same duties and obligations as do other citizens and enjoy the same freedoms of speech, press, religion, peaceful assembly, and petition that other citizens enjoy. In all of its dealings with students, the University will respect the rights guaranteed to them by the Constitutions and laws of the United States and the State of Michigan.

2.2.2 All registered student organizations are open to all students without respect to race, religion, creed, sexual orientation, gender, disability, or national origin except that certain organizations (e.g. social fraternities and sororities) are restricted as to gender, as allowed under Title IX of the Education Amendments of 1972.

2.2.3 Students individually and collectively are free to examine and to discuss all questions of interest to them, including questions relating to University policies, and to express opinions publicly and privately.
Responsibilities of Students and Faculty
Students should conscientiously strive to complete course requirements as stated, and accept responsibility to contribute positively to the learning environment established by faculty. Proper evaluation of students in a course is based solely on performance in meeting appropriate standards established and communicated by the instructor for that course. Each course has a master syllabus approved through university curricular processes, which includes a description of the scope of the course and a list of the goals and objectives of the learning experience. Faculty members assigned to teach a course will develop a course outline, based on the master syllabus, to provide students with greater specificity about how the course will be conducted in order to accomplish the intended goals and objectives. Proper evaluation of progress of graduate students in thesis or dissertation work or other research projects is based on attainment of objectives established by the chair of the student’s committee according to written departmental guidelines.

Relations with Law Enforcement Agencies
In addition to filing complaints under these regulations, victims are encouraged to report crimes to the appropriate law enforcement agency. The CMU Police Department is the designated law enforcement agency for crimes committed on campus. As members of the local community, students are expected to cooperate with law enforcement agencies.

Confidentiality of Information
All information about students’ views, beliefs, and political associations which members of the University acquire in the course of their work as teachers, administrators, advisers, and counselors is confidential. Improper disclosure of confidential information is a serious violation of the obligations of a member of this University community. Judgments of a student’s ability and character, however, may be provided under appropriate circumstances.

Student Associations
Students are free to form and join associations which advance the common interest of their members. Activities of such organizations must be conducted in accordance with University regulations and public law.

Responsibilities of Students

General Regulations Concerning Student Conduct

The Board of Trustees is responsible for promulgating policies regarding student conduct at Central Michigan University. The President, as its executive officer, is the final authority in all discipline cases. The Provost is the designated officer responsible to the president for conducting discretionary review of a decision of the Appeals Board to suspend a student for more than one week or to dismiss a student. The Dean of Students is the designated officer responsible to the President for the administration of student conduct policies, with the exception of research misconduct or violation of academic integrity by a graduate student, which are delegated to the Graduate Studies, is reported to the Dean of Students or to the Provost. All misconduct by a graduate student, which are delegated to the Dean of the College of Graduate Studies. All misconduct

The University shall take disciplinary action in cases concerning a student’s actions or offenses occurring within or affecting people on property within the physical boundaries of Central Michigan University, on or affecting University owned or controlled property, or when the student is in attendance at a University sponsored event, or when the interests of the University as a community, are clearly involved. Only where the health and safety of members of this community, are clearly involved shall the special authority of the University be asserted in other cases.

Students subject to the provisions of this Code are defined as all persons who have enrolled at the University, either full-time or part-time, pursuing undergraduate, graduate, or non-degree studies. Persons who have been enrolled at the University, and who have not withdrawn, are students even when they are not enrolled for a particular term. Students also include persons who have been admitted to the University and who, before their first attendance, participate in activities intended only for prospective students (e.g., orientation, leadership, band, or other camp, athletic training and practices).

Specific Regulations Concerning Student Conduct

Academic Dishonesty. Written or other work which a student submits in a course, shall be the product of his/her own efforts. Plagiarism, cheating, and all other forms of academic dishonesty are prohibited. Students are expected to adhere to the ethical and professional standards associated with their programs and academic courses. Copies of the Policy on Academic Integrity may be accessed at www.otr.cmich.edu

False Information. A student shall not furnish, or attempt to furnish, false or misleading information to University officials or on official University records. Furthermore, he/she shall not forge, alter, or misuse the University name, the name of any University employee, documents, records of identification, or attempt to do the same.

Disruption of Learning. A student shall not obstruct, disrupt or interfere, or attempt to obstruct, disrupt or interfere with another student’s right to study, learn or complete academic requirements. This includes acts to destroy or prevent or limit access to information or records used by other students in connection with their University responsibilities.

Disruptive Behavior During Class: A student shall not obstruct, disrupt or interfere, or attempt to obstruct or interfere with another student's right to study, learn, participate, or a teacher’s right to teach during a class. This includes but is not limited to such behaviors as talking at inappropriate times, drawing unwarranted attention to him or herself, engaging in loud or distracting behaviors, or refusing to leave a classroom when ordered to do so.

Disruption of University Activities. A student shall not obstruct or disrupt, or attempt to obstruct or disrupt, teaching, research, administration, disciplinary procedures, or other University activities. This includes acts to destroy or prevent or limit access to information or records used by other students in connection with their University responsibilities.

Access to Facilities. A student shall not enter, or attempt to enter, closed University facilities or facilities clearly under the control of an individual, e.g., student vehicles, rooms or apartments; disrupt or attempt to disrupt, the scheduled use of University facilities; block, or attempt to block, access to or from University facilities; or remain within, or attempt to remain within, University facilities after their closing unless authorized to do so by the President, or the President's designated representative.

Threat/Endangerment/Assault/Sexual Assault. A student shall take no action which threatens or endangers the safety, health, or life, or impairs the freedom of any person, nor shall a student make any verbal threat of such action. This includes actions commonly understood to constitute assault, battery, or sexual assault. Sexual assault includes, but is not limited to, interfering with a sexual contact upon another person or sexually penetrating any person without that person’s consent. Conduct will be considered without consent if no clear consent is given, or when the inflicted person is unconscious or otherwise without the physical or mental capacity to consent. Inflicting sexual contact on someone under the influence of alcohol or drugs may be considered "without consent."

Self-Injurious Behavior/Attempted suicide. A student shall take no action which threatens or endangers the safety, health, or life, or nor shall a student make any verbal threat of such action. This includes such behaviors as suicide attempts, cutting, refusing treatment for life threatening illnesses or conditions (e.g., eating disorders).

Property Damage. A student shall take no action which damages or tends to damage property not the student's own.

Theft. A student shall not appropriate for the student’s own use, sale, or other disposition, property not the student’s own without consent of the owner or the person legally responsible for it. This includes embezzlement, misappropriation and/or theft of university and/or student organizational resources and theft of personal information.

Disorderly Conduct. A student shall not act as a disorderly person or engage in disorderly conduct or disturb the peace, as defined by state statute or local ordinance. This includes acts of indecent exposure or lewd conduct.

Controlled Substances. A student shall not possess, use, manufacture, produce, or distribute, or aid in the use, manufacture, production, or distribution of, any controlled substance except as expressly permitted by law and university policy. Violation of the Residence Life Alcohol and Controlled Substances Policy is a
3.2.13 Violation of Alcohol Policy. A student shall not possess, consume or furnish, or aid in the consumption or furnishing of, alcoholic beverages except as permitted by law and University policy. Violation of the Residence Life Alcohol & Controlled Substances Policy is a violation of this section.

3.2.14 Firearm/Explosives/Weapons. A student shall not possess or use firearms, explosives (including fireworks), dangerous chemicals, weapons, knives or items that forcibly eject projectiles (including BB, pellet and air soft guns), and may be injurious to others, except as part of an approved university activity and under the supervision of a university official. Firearms (including BB, pellet and air soft guns) may not be stored in university residences. Firearms used for hunting must be properly registered with the CMU Police Department and stored in compliance with University regulations.

3.2.15 Complying with University Agents. A student shall comply with the directions of University agents acting in the performance of their regular or delegated duties and must identify him self or her self to these agents upon request.

3.2.16 Payment of Fines/Restitution. A student shall pay fines or restitution levied by a proper hearing body or University authority by the deadline established.

3.2.17 Misuse of Buildings/Facilities/Services. A student must observe rules and regulations concerning the use of campus buildings and other University owned or operated facilities, vehicles, equipment and services.

3.2.18 Computer Abuse. A student shall not abuse university computer time or equipment. Abuse includes but is not limited to: unauthorized entry or transfer of a file, unauthorized downloading of copyrighted info, unauthorized use of another individual’s identification and password; use of computing facilities to interfere with the work of a student, faculty members or university officials; or use of computing facilities to interfere with normal operation of the university. A student shall adhere to the rules and practices promulgated by the University Office of Information Technology (www.oit.cmich.edu).

3.2.19 Hazing/Harassment/Stalking. A student shall not haze, harass or stalk any person or group of persons. Telephone harassment, e-mail or computer harassment, stalking, racial and sexual harassment are included under this policy.

3.2.20 Civil Disorder. A student shall not participate in a riot or civil disorder, which is defined as five or more persons, acting in concert, who intentionally or recklessly cause or create a serious risk of causing public terror or alarm.

3.2.21 Aiding Civil Disorder. A student shall not, intending to cause or aid or abet the institution or maintenance of a riot or civil disorder, act or engage in conduct which urges other persons to commit acts of unlawful force or violence or the unlawful burning or destroying of property or the unlawful interference with a police officer, peace officer, fireman or member of the Michigan National Guard or any unit of the armed services officially assigned to civil disorder duty in the lawful performance of his/her duty.

3.2.22 Participation in Riot. A student shall not assemble or act in concert with four or more persons for the purpose of engaging in conduct which creates a serious risk of a riot or civil disorder or be present at an assembly that either has or develops such a purpose and remain there after an order has been given to disperse.

3.2.23 Violation of Injunction. A student shall not violate the terms of any injunction regulating conduct in Isabella county or the terms of the Mt. Pleasant Nuisance Party Ordinance during and as part of a riot or civil disorder.

3.2.24 Discrimination. Violation of the CMU Nondiscrimination Policy or the Equal Opportunity and Affirmative Action protocol shall be treated as an offense under these regulations.

3.2.25 Violations by Registered Student Organizations. Violation by Registered Student Organizations of these regulations, and other rules pertaining to Registered Student Organizations as outlined in the Student Organization Operational Guide may be treated as an offense under these regulations.

3.2.26 Violation of Residence Hall Rules. Violation of “Residence Hall Rules” may be treated as an offense under these regulations.

3.2.27 Collusion. A student who shall with any one or more persons enter into a combination or agreement, expressed or implied, to commit a violation of any of these regulations, is in violation of the regulation. Students are responsible for the actions of their guests while present on CMU property or at university sponsored activities.

Aiding/Aiding with a direct and intentional act constituting the violation or procedures in connection with it, or aids or abets in its commission, may be treated under the regulations as if he or she had directly committed such violation.

3.2.28 Violation of Federal/State/Legal Law. Violation of federal, state or local law in a manner which affects the University shall be treated as an offense under these regulations.

3.2.29 Violation of University Regulations. Violation of other university regulations, policies or established procedures may be treated as an offense under these regulations.

4. Official University Sanctions

4.1 Sanctions

Sanctions which may be imposed for violation of University regulations include the following:

4.1.1 Reprimand. A written reprimand, including the possibility of more severe disciplinary sanctions in the event of the finding of a subsequent violation of University regulations within a stated period of time.

4.1.2 University or Community Service. Required work or other service to be provided to the University or other organization within a specified time. The person or body imposing this sanction may impose another allowed sanction as an alternative if the specified service is not completed within the time stipulated, and may impose additional sanctions.

4.1.3 Restitution. Reimbursement for defacement, damage to, or misappropriation of property. The person or body imposing this sanction may impose another allowed sanction as an alternative if restitution is not made within the time specified and may impose additional sanctions.

4.1.4 Fines. A fine not to exceed $1,000 may be levied. Failure to pay a fine in the time limit prescribed results in further disciplinary action.

4.1.5 Removal from University Housing. Cancellation of contract and requirement to vacate university housing within a specified period of time.

4.1.6 Campus Restrictions. Limitations on the times and/or places where a student may be present on campus.

4.1.7 Educational Programs. Participation in educational programs, i.e., workshops, seminars, or other educational activities may be required. The person or body imposing this sanction may impose another allowed sanction as an alternative if the specified program is not completed within the time stipulated and may impose additional sanctions.

4.1.8 Revocation of the Privilege of being a Registered Student Organization.

4.1.9 Disciplinary Probation. Subjection to a period of critical examination and evaluation of behavior. In addition to any of the sanctions set forth above, the student or organization may be placed on probation for a stated period. Placement on probation may include additional restrictions or requirements, not limited to the following:

a) Withdrawing the privilege of campus registration of a motor vehicle,
b) Withdrawing the privilege of membership in a campus organization,
c) Withdrawing the privilege of holding office in a campus organization,
d) Withdrawing the privilege of representing the University in any inter-University event,
e) Requirement to complete a specified number of credit hours with a specific grade point average during the current or subsequent academic session.
f) Requirement to complete coursework related to the violation.
g) Withdrawing the privilege of using computing resources.

A condition of probation may be automatic suspension or dismissal upon a finding of fact (under procedures set forth in Article 5 herein) that a violation of a condition of probation or any other violation did occur.

Suspension/Dismissal from an Academic Program. Exclusion from an academic program as set forth in the notice for a definite
or indefinite period of time.

4.1.11 **Suspension.** Exclusion from classes and other privileges or activities as set forth in the notice for a definite period of time. Suspension may include exclusion from the campus and property belonging to the University for a stated period of time.

4.1.12 **Dismissal.** Permanent termination of student status.

4.2 **Additional Sanctions**

Sanctions in addition to those listed in Article 4.1 may be established by the University.

4.3 **Temporary Suspension**

The University reserves the right to suspend a student, summarily and without notice, if in the judgment of the President of the University or the President’s representative a student's presence would constitute a continuing danger to the person himself/herself, other persons, or property, or the operation of the University would be seriously impaired. In the case of temporary suspension, the student will be given written notice of the charges against him or her and a hearing before a Hearing Officer will be held within three (3) business days. The hearing will be conducted according to procedures outlined in section 5.2.3 of this document.

4.4 **Automatic Sanctions for Grave Offenses**

Certain grave offenses require that the sanctions be stipulated in advance and imposed automatically. The following shall be breaches of the student conduct regulations for which the minimum sanction of suspension is mandatory.

4.4.1 Bomb threat or knowingly false bomb warning.

4.4.2 Willful destruction of property worth more than $1,000.

4.4.3 Willful disruption of Schedule University activities.

4.4.4 Violence against persons which results in bodily injury requiring substantial medical treatment.

4.4.5 Violence against persons which constitutes sexual assault.

4.4.6 Administering or causing to be administered to any person unknowingly or against the person’s will any “Controlled Substance” as defined in the Controlled Substances Act of 1971, as amended.

4.4.7 Sale or distribution of, or aiding or assisting in the sale or distribution of, any “Controlled Substance” as defined in the Controlled Substances Act of 1971, as amended.

4.4.8 Possession of a firearm or any other dangerous weapon as described in Section 3.2.14.

4.4.9 Participation in a riot or civil disorder as described in Section 3.2.20 or 3.2.22.

4.4.10 Urging other persons to commit unlawful acts during a riot or civil disorder, as described in 3.2.21.

4.4.11 Being present at a riot or civil disorder after an order has been given to disperse.

4.4.12 Violations of Sections 3.2.7 (Threat/Endangerment/Assault/Sexual Assault) or 3.2.9 (Property Damage) during a riot or civil disorder.

4.4.13 Violation of the terms of any injunction regulating conduct in Isabella County or the terms of the Mt. Pleasant Nuisance Party Ordinance during and as a part of a riot or civil disorder.

5. **Student Hearing Procedures for Charged Violation of Student Conduct Regulations**

5.1 **Intake Conduct Proceedings Officer**

5.1.1 A charge may be made to the Conduct Proceedings Officer by any member of the university community or may be brought by the Conduct Proceedings Officer on one’s own initiative stating that a student has violated the Specific Regulations Concerning Student Conduct (3.2). Students subject to the provisions of this Code are defined as all persons who have enrolled at the University, either full-time or part-time, pursuing undergraduate, graduate, or non-degree studies. Persons who have been enrolled at the University and who have not withdrawn, are students even when they are not enrolled for a particular term. Students also include persons who have been admitted to the University and who, before their first attendance, participate in activities intended only for prospective students (e.g., orientation, leadership, band, or other camp, athletic training and practices).

5.1.2 One or more Conduct Proceedings Officers shall be appointed by the President or the President’s designated representative. The Conduct Proceedings Officer will make, or cause to be made, an investigation of the charge.

5.1.3 If, from the investigation, the Conduct Proceedings Officer determines the matter may be reason for discipline under the student conduct regulations, the Conduct Proceedings Officer will notify the student that a charge has been made and will offer the student an opportunity to discuss the matter.

If notified by either United States mail or by University e-mail, the notice will be mailed to the last address for the student on file with the University Office of the Registrar. The notice will be deemed received two (2) days following the date the notice is posted at facilities of the United States Post Office or electronically sent via e-mail. In the absence of mailing, personal delivery to the student cited, or delivery to the last address on file in the Office of the Registrar constitutes proper notice. If personal delivery to the student or delivery to the last address is used, the date notice is so delivered shall be deemed the date the notice is received.

The student will have two (2) days from the date of receipt in which to respond to this notice. If the student has not responded at the end of this two day period, the Conduct Proceedings Officer will set up a hearing, and cause to be delivered to the student a copy of this document.

5.1.4 The student may bring an advisor of the student’s choice to the discussion with the Conduct Proceedings Officer. If the student’s advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the discussion. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

5.1.5 If the student chooses to discuss the matter, the Conduct Proceedings Officer will at the discussion inform the student of the charge(s) and the regulation(s) which are alleged to have been violated and will explain to the student the process outlined in this document.

5.1.6 If the charge is against a graduate student for a violation of the Policy on Academic Integrity, then the matter will be handled under Section 6.

5.1.7 **Student Admits Violation**

If the student admits to the violation, the Conduct Proceedings Officer may:

a) Issue a sanction
b) Order that the sanction be set by a University Hearing Officer, or
c) Enter into a written, mutually acceptable, behavioral contract with the Student and/or
d) Refer the student for counseling.

The student charged or the person or group who first brought the charge, or the university, may appeal the sanction (except the terms of a behavioral contract), by a letter delivered to the Office of the Conduct Proceedings Officer or University Hearing Officer within five (5) business days after the Conduct Proceedings Officer has set the sanction. Since admission of the violation by the student is a prerequisite to the Conduct Proceedings Officer acting under this section, such an appeal will only be as to the appropriateness of the sanction and not the fact of whether the violation occurred.

Once a student admits a violation for which there is an automatic sanction, the sanction is automatically imposed and only the terms of a suspension may be appealed. The appeal is to the Appeals Board.

5.1.8 **Student Does Not Admit Violation**

After discussion with the student, the Conduct Proceedings Officer may determine that the matter requires no further action.

The Conduct Proceedings Officer will refer the matter for hearing if:

5.1.8.1 The student denies the charge and the Conduct Proceedings Officer determines the matter may be reason for discipline.

The student chooses not to discuss the matter at the discussion offered by the Conduct Proceedings Officer. The student will be notified of the date and time of the hearing.

5.1.9 **Alternative Resolution**

5.1.9.1 **Mutual Settlement.** In lieu of referral to a hearing, the Conduct Proceedings Officer may offer or accept mutual settlements of any charged violations under this code. Settlements shall be in writing stating the conditions of the agreement and any sanctions imposed. Agreements will be signed by the student being charged and the Conduct Proceedings Officer.

Cases not settled in a timely manner shall proceed to a hearing. Mutual settlements may not be appealed.
5.1.9.2 **Counseling.** In lieu of, or in addition to, a sanction or referral to a hearing the Conduct Proceedings Officer may refer the student for psychological counseling.

5.1.9.3 **Behavioral Contract.** In lieu of, or in addition to, a sanction or referral to a hearing, the Conduct Proceedings Officer may arrange a behavioral contract with the student. A behavioral contract is a mutually acceptable agreement between the University and a student that specifies certain behavior with which the student must comply, and specifies automatic sanctions which may be imposed if the contract is broken. If the contract is broken, as determined by a finding of fact under procedures set forth in Article 5 herein, the student may be suspended from the University as determined by the Conduct Proceedings Officer. In cases where suspension is automatic under the terms of a behavioral contract, a hearing to determine if the contract has been broken will be on fact only.

5.1.9.4 **Referral to Behavioral Evaluation Team.** In lieu of referral to a hearing, the Conduct Proceedings Officer and the student may agree to referral to a process provided by the Behavior Evaluation Team. This option is available in situations where the alleged conduct of the student appears to be related to a mental disorder or emotional problem.

5.2 **Hearings**

There are two hearing forums: The University Hearing Officer and the University Hearing Body. The Conduct Proceedings Officer will assign a case to one of these forums, except that in cases where there is potential for a sanction of suspension or dismissal, the student may choose which hearing forum will hear the case. The student will have two (2) business days from the date of the meeting with the Conduct Proceedings Officer to make a final choice in writing to the Conduct Proceedings Officer. If no such timely choice is made, the Conduct Proceedings Officer will designate whether the case will be heard by a Hearing Officer or Hearing Body. The student will be notified of the time and date of the hearing.

5.2.1 **University Hearing Officer**

5.2.1.1 One or more University Hearing Officers will be appointed by the President or the President’s designee and must participate in the appropriate training sessions regarding the Code of Student Rights, Responsibilities and Disciplinary Proceedings.

5.2.1.2 The University Hearing Officer will be assigned by the President or the President’s designee to hear the case.

5.2.1.3 The University Hearing Officer, based on the information presented at the hearing, determines whether the student charged violated the student conduct regulations, and sets the sanction, when applicable. Failure to complete the terms of the sanction may result in suspension from the university as determined by the Conduct Proceedings Officer. Certain violations have automatic sanctions imposed according to Section 4.4. In such cases, the University Hearing Officer will decide if a violation has occurred and, if so, the terms of a mandatory suspension.

5.2.2 **University Hearing Body**

5.2.2.1 The University Hearing Body consists of one University Hearing Officer and two students.

5.2.2.2 The students will be selected from a pool of students who are selected by the President or the President's designee in consultation with Student Government Association and must participate in the appropriate training sessions regarding the Code of Student Rights, Responsibilities and Disciplinary Proceedings.

5.2.2.3 The University Hearing Body, based upon the information presented at the hearing, determines whether the student charged violated student conduct regulations, and sets the sanction, when applicable. Failure to complete the terms of the sanction may result in suspension from the university as determined by the Conduct Proceedings Officer. Certain violations have automatic sanctions imposed according to Section 4.4. In such cases, the University Hearing Body will decide if a violation has occurred and, if so, the terms of a mandatory suspension.

5.2.3 **Hearing Procedures**

5.2.3.1 In all disciplinary hearings, the burden of proof rests with the Conduct Proceedings Officer, who must prove by a preponderance of evidence that a violation has occurred.

5.2.3.2 The student charged may have an advisor of the student’s choice present at the hearing. If the student’s advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

5.2.3.3 A record of the hearing, made by tape recorder, will be kept by the Conduct Proceedings Officer at least until the appeal time is exhausted. If either the University or the student requests another type of record of the hearing be made, this may be done at the cost of the requestor. Any provided the type of recording does not interfere with the hearing.

5.2.3.4 A University Hearing Officer presides at all hearings.

5.2.3.5 Procedures at hearings will be communicated to the student charged at least twenty-four (24) hours before the hearing.

5.2.3.6 The Hearing Officer or Hearing Body will issue a written decision within three (3) business days stating if a violation has been found, what facts support this finding, and the sanction to be imposed if a violation has been found.

5.2.3.7 A copy of a decision by the University Hearing Body or University Hearing Officer will be mailed to the student within two (2) business days from the date the decision is made. The Conduct Proceedings Officer will coordinate procedures for communicating the decision.

5.3 **Complainant’s Rights**

Central Michigan University recognizes that complainants have rights which need to be protected as well as those of the person who is cited.

5.3.1 The complainant has the right to have a person of his or her choice accompany him or her throughout the disciplinary hearing.

5.3.2 The complainant has the right to remain present during any disciplinary or appeal hearings.

5.3.3 The complainant has the right to submit an “impact statement” and to suggest an appropriate sanction if the person cited is found in violation of the Code of Student Rights, Responsibilities and Disciplinary Procedures.

5.3.4 The complainant has the right to be informed in a timely manner of the outcome of the hearing regarding the findings and the sanction.

5.3.5 The complainant has the right to appeal either the findings or the sanction.

5.3.6 In cases involving sexual assault, the complainant has the right not to have his or her irrelevant past sexual history discussed during the hearing.

5.4 **Appeals**

The following matters may be appealed to the Appeals Board:

5.4.1 The decision of a University Hearing Body or a University Hearing Officer as provided in Section 5.2. The appeal may be as to the facts found or the sanction set or both: If the sanction is automatic, then the appeal may only be made as to the findings, or the terms of a suspension. The appeals board may not reduce the sanction below the minimum imposed by Section 4.4 or by the terms of behavioral contracts or other disciplinary actions in which automatic sanctions are specified.

5.4.1.2 The sanction set by the Conduct Proceedings Officer after admission of violation by the student. Imposition of any automatic sanction after such an admission may not be appealed however, the terms or conditions of the sanction may be appealed. See Section 5.1.7.2 for more information regarding this type of appeal.

5.4.2 The Appeals Board consists of the Student Government Association President or designee, the Chairperson of the Academic Senate or designee, and the Dean of Students or designee and must participate in the appropriate training sessions regarding the Code of Student Rights, Responsibilities and Disciplinary Proceedings.

5.4.3 An appeal to the Appeals Board may be made by the student involved, by the person or group who first brought the charge, or by the University.

5.4.4 An appeal is timely only if taken within five (5) business days of the decision appealed. An appeal not made within the time limit will not be heard unless an exception is made by the President or the President’s designee.

5.4.5 An appeal is made by submitting a written statement of appeal to the Conduct Proceedings Officer within the time limit. The written statement of appeal must state: the name of the person appealing, the basis of the appeal, the person or group making the decision from which the appeal is made, whether a decision as to fact or sanction or both is appealed, and the remedy which the person appealing is requesting from the Appeals Board.

5.4.6 The student charged may have an advisor of the student’s choice present at the hearing of the appeal. If the student’s advisor is an
If the Provost elects to review a decision of the Appeals Board, either
5.4.12 The Appeals Board must hear the appeal within fifteen (15) business
5.4.11.3 Change the sanction.
5.4.11 The purpose of the Appeals Board is to decide if the findings and/or
5.4.10 The Appeals Board makes its determination based solely on the
5.4.7 The Conduct Proceedings Officer is responsible for notifying
5.4.9 The Appeals Board may establish its own procedure for conducting
any appeal appropriate to the circumstances designed to achieve
fairness to the student charged as well as the interests protected by the
Central Michigan University Code of Student Rights, Responsibilities
and Disciplinary Procedures.
5.4.10 The Appeals Board makes its determination based solely on the record of the student's hearing, facts that are presented to the
Appeals Board, and arguments before the Appeals Board.
5.4.11 The purpose of the Appeals Board is to decide if the findings and/or the sanction of the Hearing Body were so incorrect that the decision should be changed. It is not the purpose of the Appeals Board to substitute its judgment for that of the Hearing Officer or Body. It is not the purpose of the Appeals Board to decide if it would have reached the same decision had it been the Hearing Officer or Body. It is not the function of the Appeals Board to reweigh the charges against the student; it is an appeal of the findings and/or the sanction of the Conduct Proceedings Officer, Hearing Officer or Body only as requested by the person or persons making the appeal. The Appeals Board may:

Find that there are not sufficient facts presented to warrant the findings of fact made at the original hearing and may set aside the finding or determine the facts differently.

Order that a new hearing be held.

Change the sanction.

Provide such further and additional relief or changes as dictated by fairness to the student and to the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.

The Appeals Board must hear the appeal within fifteen (15) business days from the date the appeal is made in writing and delivered to the Conduct Proceedings Officer.

A decision of the Appeals Board is final except that a decision to suspend for more than one week or to dismiss a student is subject to discretionary review by the Provost or the President (see 5.4.14). Any student responding to a charge under these procedures, any person bringing charges under these procedures, or the Administration, may make a written application to the Provost to review such a decision made by the Appeals Board. The application must be received in the Office of the Provost within five (5) business days after the date of the Appeals Board decision. Failure to make application for review within the time limit ends the right to make application for review unless the time limit is extended by the Provost. The application for review must contain the following information:

a) Name of the student(s) charged in the proceeding in which the Appeals Board has rendered a decision.
b) Name, address, and telephone number of the person making application for review.
c) A copy of the Appeals Board decision involved.
d) A statement as to what portion(s) of the Appeals Board decision the applicant wishes reviewed, and the reason(s) why the person making application for review considers the decision to be capricious, or the procedures followed to be fundamentally unfair.
e) A statement of the relief requested from the Provost by the person making application for review.

If the Provost elects to review a decision of the Appeals Board, either in part or entirely, the Provost may establish whatever procedures are deemed appropriate and consistent with fairness to govern the

The University reserves the right for the President or the President’s designee to impose a different sanction after a determination of violation, than the sanction imposed by the Conduct Proceedings Officer, Hearing Officer, Hearing Body, Appeals Board, or others under these procedures.

5.5 Charges Involving Student Organizations

All notices referred to in this document, when involving a Registered Student Organization, shall be sent to the president of the organization, at his or her last address on file with the Office of the Registrar, unless another representative of the organization is designated by the organization to receive such notices. When a Registered Student Organization is charged with a violation, the president of the organization shall represent the organization in the process described in Section 5, unless the Registered Student Organization designates some other representative. The representative of the student organization must be a registered student at Central Michigan University, and must be a regular member of that organization.

Changes in Procedures

The procedures set forth herein shall apply throughout the calendar year. A University Hearing Officer may be appointed by the Conduct Proceedings Officer to hear a case at times when a University Hearing Body cannot be readily assembled such as when students are not in attendance at regular sessions, during exam week, summer sessions.

These procedures are subject to change by the President of the University or designee. If any change is deemed necessary, any new procedures shall guarantee a fair hearing with due process.

Clarifying Processes

Clarifying processes which are consistent with the Hearing Procedures in this document may be proposed by the Office of Student Rights and Responsibilities.

6. Student Hearing Procedures for Graduate Students Charged with Violating the Policy on Academic Integrity

If the charge is against a graduate student for violation of the Policy on Academic Integrity, then the matter will be handled under this section and not under section 5.

Intake Conduct Proceedings Officer

A charge may be made to the Dean of the College of Graduate Studies by any member of the university community stating that a student has violated Section 3.2.1 of Specific Regulations Concerning Student Conduct.

One or more Conduct Proceedings Officers shall be appointed by the Dean of the College of Graduate Studies and must participate in the appropriate training sessions regarding the Code of Conduct. The Conduct Proceedings Officer will make, or cause to be made, an investigation of the charge.

If, from the investigation, the Conduct Proceedings Officer determines the matter may be reason for discipline under the policy on academic integrity, the Conduct Proceedings Officer will notify the student that a charge has been made and will offer the student an opportunity to discuss the matter.

If notified by mail, the notice will be mailed to the last address for the student on file with the University Office of the Registrar. The notice will be deemed received two (2) days following the date the notice is posted at facilities of the United States Post Office. In the absence of mailing, personal delivery to the student cited, or delivery to the last address on file in the Office of the Registrar constitutes proper notice. If personal delivery to the student or delivery to the last address is used, the date notice is so delivered shall be deemed the date the notice is received.

The student will have two (2) days from the date of receipt in which to respond to this notice. If the student has not responded at the end of this two day period, the Conduct Proceedings Officer will set up a hearing, and cause to be delivered to the student a copy of this document.

The student may bring an advisor of the student’s choice to the discussion with the Conduct Proceedings Officer. If the student chooses to discuss the matter, the Conduct Proceedings Officer will, at the discussion inform the student of the charge(s) and the regulation(s) which are alleged to have been violated and will explain to the student the process outlined in this document.
6.1.6 **Student Admits Violation**

6.1.6.1 If the student admits to the violation, the Conduct Proceedings Officer may issue a sanction.

6.1.6.2 The student charged or the person or group who first brought the charge may appeal the sanction, by a letter delivered to the Dean of the College of Graduate Studies within five (5) business days after the Dean has set the sanction.

Since admission of the violation by the student is a prerequisite to the Dean acting under this section, such an appeal will only be as to the appropriateness of the sanction and not the fact of whether the violation occurred.

6.1.7 **Student Does Not Admit Violation**

After discussion with the student, the Conduct Proceedings Officer may determine that the matter requires no further action. The Conduct Proceedings Officer will refer the matter for hearing if:

6.1.7.1 The student denies the charge and the Conduct Proceedings Officer determines the matter may be reason for discipline

6.1.7.2 The student chooses not to discuss the matter at the discussion offered by the Conduct Proceedings Officer. The student will be notified of the date and time of the hearing.

6.1.8 **Alternative Resolution**

6.1.8.1 **Mutual Settlement.** In lieu of referral to a hearing, the Conduct Proceedings Officer may offer or accept mutual settlements of any charged violations under this code. Settlements shall be in writing stating the conditions of the agreement and any sanctions imposed.

Agreements will be signed by the student being charged and the Conduct Proceedings Officer.

Cases not settled in a timely manner shall proceed to a hearing. Mutual settlements may not be appealed.

6.2 **Hearings**

There are two hearing forums: The Graduate Studies Hearing Officer and the Graduate Studies Hearing Body. In cases where there is potential for a sanction of suspension or dismissal, the student may choose which hearing forum will hear the case.

The student will have two (2) business days from the date of the meeting with the Conduct Proceedings Officer to make a final choice in writing to the Conduct Proceedings Officer. If no such timely choice is made, the Conduct Proceedings Officer will designate whether the case will be heard by a Graduate Studies Hearing Officer or Graduate Studies Hearing Body. The student will be notified of the time and date of the hearing.

6.2.1 **Graduate Studies Hearing Officer**

6.2.1.1 One or more Graduate Studies Hearing Officers will be appointed by the Dean of the College of Graduate Studies to hear the case.

6.2.1.2 The Graduate Studies Hearing Officer, based on the evidence presented at the hearing, determines whether the student charged violated the policy on academic integrity and sets the sanction, when applicable.

6.2.2 **Graduate Studies Hearing Body**

6.2.2.1 The Graduate Studies Hearing Body consists of one Graduate Studies Hearing Officer, one graduate faculty member, and one graduate student.

6.2.2.2 The graduate faculty member and the graduate student will be selected by the Dean of the College of Graduate Studies.

6.2.2.3 The Graduate Studies Hearing Body, based upon the evidence presented at the hearing, determines whether the student charged violated student conduct regulations, and sets the sanction, when applicable.

6.2.3 **Hearing Procedures**

6.2.3.1 In all disciplinary hearings, the burden of proof rests with the Conduct Proceedings Officer, who must prove by a preponderance of evidence that a violation has occurred.

6.2.3.2 The student charged may have an advisor of the student’s choice present at the hearing. If the student’s advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

6.2.3.3 A record of the hearing, made by tape recorder, will be kept by the Conduct Proceedings Officer, at least until the appeal time is exhausted. If either the University or the student requests another type of record of the hearing be made, this may be done at the cost of the requesting party provided the type of recording does not interfere with the hearing.

A Graduate Studies Hearing Officer presides at all hearings. The Conduct Proceedings Officer maintains a docket of cases and defends the student when necessary.

Procedures at hearings will be communicated to the student charged at least twenty-four (24) hours before the hearing.

The Graduate Studies Hearing Officer or Graduate Studies Hearing Body will issue a written decision stating if a violation has been found, what facts support this finding, and the sanction to be imposed if a violation has been found.

A copy of a decision by the Graduate Studies Hearing Officer or Graduate Studies Hearing Body will be mailed to the student within two (2) business days from the date the decision is made. The Conduct Proceedings Officer will coordinate procedures for communicating the decision.

6.3 **Instructor’s Rights**

Central Michigan University recognizes that instructors have rights which need to be protected as well as those of the person who is cited.

The instructor has the right to have a person of his or her choice accompany him or her throughout the disciplinary hearing.

The instructor has the right to remain present during the entire proceeding.

The instructor has the right to make an “impact statement” and to suggest an appropriate sanction if the person cited is found in violation.

The instructor has the right to be informed in a timely manner of the outcome of the hearing regarding the findings and the sanction.

The instructor has the right to appeal either the findings or the sanction.

6.4 **Appeals**

The following matters may be appealed to the Graduate Studies Appeals Board:

6.4.1.1 The decision of a Graduate Studies Hearing Officer or a Graduate Studies Hearing Body.

The appeal may be as to the facts found or the sanction set or both. The appeals board may not reduce the sanction below the minimum imposed by Section 4.4.

6.4.1.2 The sanction set by the Conduct Proceedings Officer after admission of violation by the student. See Section 6.1.6 for more information regarding this type of appeal.

6.4.2 The Graduate Studies Appeals Board consists of a graduate student appointed by the Chair of the Graduate Council, the Chairperson of the Academic Senate or designee, and the Dean of the College of Graduate Studies or designee.

An appeal to the Graduate Studies Appeals Board may be made by the student involved, by the person or group who first brought the charge, or by the University.

An appeal is timely only if taken within five (5) business days of the decision appealed. An appeal not made within the time limit will not be heard unless an exception is made by the President or the President’s designee.

An appeal is made by submitting a written statement of appeal to the Conduct Proceedings Officer within the time limit. The written statement of appeal must state: the name of the person appealing, the basis of the appeal, the person or group making the decision from which the appeal is made, whether a decision as to fact or sanction or both is appealed, and the remedy which the person appealing is requesting from the Graduate Studies Appeals Board.

The student charged may have an advisor of the student’s choice present at the hearing of the appeal. If the student’s advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

The Conduct Proceedings Officer is responsible for notifying members of the Graduate Studies Appeals Board of the appeal and for setting a time and place for holding a meeting of the Graduate Studies Appeals Board. The Conduct Proceedings Officer will provide notice of time and place of the meeting of the Graduate Studies Appeals Board to the student(s) charged, the charging party, and other University persons deemed appropriate by the Conduct Proceedings Officer.
6.4.8 The Conduct Proceedings Officer will assemble the documentary evidence introduced at the hearing, the record made of the hearing, and the file made in connection with the matter and will make these materials available to the Graduate Studies Appeals Board.

6.4.9 The Graduate Studies Appeals Board may establish its own procedure for conducting any appeal appropriate to the circumstances designed to achieve fairness to the student charged as well as the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.

6.4.10 The Graduate Studies Appeals Board makes its determination based solely on the record of the student's hearing, facts that are presented to the Graduate Studies Appeals Board, and arguments before the Graduate Studies Appeals Board.

6.4.11 The purpose of the Graduate Studies Appeals Board is to decide if the findings and/or the sanction of the Graduate Studies Hearing Body were so incorrect that the decision should be changed. It is not the purpose of the Graduate Studies Appeals Board to substitute its judgement for that of the Graduate Studies Hearing Officer or Graduate Studies Hearing Body. It is not the purpose of the Graduate Studies Appeals Board to rehear the charges against the student; it is an appeal of the findings and/or the sanction of the Graduate Studies Hearing Officer or Graduate Studies Hearing Body. The Graduate Studies Appeals Board may:

6.4.11.1 Find that there are not sufficient facts presented to warrant the findings of fact made at the original hearing and may set aside the finding or determine the facts differently.

6.4.11.2 Order that a new hearing be held.

6.4.11.3 Change the sanction.

6.4.11.4 Provide such further and additional relief or changes as dictated by fairness to the student and to the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.

6.4.12 The Graduate Studies Appeals Board must hear the appeal within fifteen (15) business days from the date the appeal is made in writing and delivered to the Conduct Proceedings Officer.

6.4.13 A decision of the Graduate Studies Appeals Board is final except that a decision to suspend for more than one week or to dismiss a student is subject to discretionary review by the Provost. Any student responding to a charge under these procedures, or the Administration, may make a written application to the Provost to review a decision made by the Appeals Board. The application must be received in the Office of the Provost within five (5) business days after the date of the Appeals Board decision. Failure to make application for review within the time limit ends the right to make application for review unless the time limit is extended by the Provost. The application for review must contain the following information:

a) Name of the student(s) charged in the proceeding in which the Graduate Studies Appeals Board has rendered a decision.

b) Name, address, and telephone number of the person making application for review.

c) A copy of the Graduate Studies Appeals Board decision involved.

d) A statement as to what portion(s) of the Graduate Studies Appeals Board decision the applicant wishes reviewed, and the reason(s) why the person making application for review considers the decision to be capricious, or the procedures followed to be fundamentally unfair.

e) A statement of the relief requested from the Provost by the person making application for review.

If the Provost elects to review a decision of the Graduate Studies Appeals Board, either in part or entirely, the Provost may establish whatever procedures are deemed appropriate and consistent with fairness to govern the review.

The University also reserves the right for the President or the President's designee to impose a different sanction after a determination of violation, than the sanction imposed by the Conduct Proceedings Officer, Graduate Studies Hearing Officer, Graduate Studies Hearing Body, Graduate Studies Appeals Board, or others under these procedures.

6.5 Changes in Procedures

6.5.1 The procedures set forth herein shall apply throughout the calendar year. A Graduate Studies Hearing Officer may be appointed by the Dean of the College of Graduate Studies to hear a case at times when a Graduate Studies Hearing Body cannot be readily assembled such as when students are not in attendance at regular sessions, during exam week, summer sessions.

6.5.2 These procedures are subject to change by the President of the University or designee. If any change is deemed necessary, any new procedures shall guarantee a fair hearing with due process.

6.6 Clarifying Processes

Clarifying processes which are consistent with the Hearing Procedures in this Section may be proposed by the College of Graduate Studies.
Policy on Academic Integrity

This Policy applies to any and all student experiences in which academic credit is involved (e.g., courses, internships, practica, theses).

1. Academic Integrity

   Because academic integrity is a cornerstone of the University's commitment to the principles of free inquiry, students are responsible for learning and upholding professional standards of research, writing, assessment, and ethics in their areas of study. In the academic community the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. Written or other work which students submit must be the product of their own efforts and must be consistent with appropriate standards of professional ethics. Academic dishonesty, which includes cheating, plagiarism and other forms of dishonest or unethical behavior, is prohibited.

   A breakdown of behaviors that constitute academic dishonesty is presented below. The definitions and clarifications are meant to provide additional information and examples of these behaviors. They are not intended to be all-inclusive. Questions regarding this policy or requests for additional clarification can be directed to the Office of Student Life or the College of Graduate Studies.

2. Academic dishonesty includes:

   A. Cheating on Examinations

   Definition

   Cheating is using or attempting to use materials, information, notes, study aids, or other assistance in any type of examination or evaluation which have not been authorized by the instructor.

   Clarification

   1. Students completing any type of examination or evaluation are prohibited from looking at another student’s materials and from using external aids of any sort (e.g., books, notes, calculators, and conversation with others) unless the instructor has indicated specifically in advance that this will be allowed.
   2. Students may not take examinations or evaluations in the place of other persons. Students may not allow other persons to take examinations or evaluations in their places.
   3. Students may not acquire unauthorized information about an examination or evaluation and may not use any such information improperly acquired by others.

   B. Plagiarism

   Definition

   Plagiarism is intentionally or carelessly presenting the work of another as one’s own. It includes submitting an assignment purporting to be the student’s original work which has wholly or in part been created by another person. It also includes the presentation of the work, ideas, representations, or words of another person without customary and proper acknowledgement of sources. Students must consult with their instructors for clarification in any situation in which the need for documentation is an issue, and will have plagiarized in any situation in which their work is not properly documented.

   Clarification

   1. Every direct quotation must be identified by quotation marks or appropriate indentation and must be properly acknowledged by parenthetical citation in the text or in a footnote or endnote.
   2. When material from another source is paraphrased or summarized in whole or in part in one’s own words, that source must be acknowledged in a footnote or endnote, or by parenthetical citation in the text.
   3. Information gained in reading or research that is not common professional knowledge must be acknowledged in a parenthetical citation in the text or in a footnote or endnote.
   4. This prohibition includes, but is not limited to, the use of papers, reports, projects, and other such materials prepared by someone else.

   C. Fabrication, Forgery and Obstruction

   Definition

   Fabrication is the use of invented, counterfeited, altered or forged information in assignments of any type including those activities done in conjunction with academic courses that require students to be involved in out of classroom experiences.

   Forgery is the imitating or counterfeiting of images, documents, signatures, and the like.

   Obstruction is any behavior that limits the academic opportunities of other students by improperly impeding their work or their access to educational resources.

   Clarification

   1. Fabricated or forged information may not be used in any laboratory experiment, report of research, or academic exercise. Invention for artistic purposes is legitimate under circumstances explicitly authorized by an instructor.
   2. Students may not furnish to instructors fabricated or forged explanations of absences or of other aspects of their performance and behavior.
   3. Students may not, or attempt to furnish, fabricated, forged or misleading information to university officials on university records, or on records of agencies in which students are fulfilling academic assignments.
   4. Students may not steal, change, or destroy another student’s work. Students may not impede the work of others by the theft, defacement, or mutilation of resources so as to deprive others of their use.

   D. Multiple Submission

   Definition

   Multiple submission is the submission of the same or substantially the same work for credit in two or more courses.

   Multiple submissions shall include the use of any prior academic effort previously submitted for academic credit at this or a different institution.

   Multiple submissions shall not include those situations where the prior written approval by the instructor in the current course is given to the student to use a prior academic work or endeavor.

   Clarification

   1. Students may not normally submit any academic assignment, work, or endeavor in more than one course for academic credit of any sort. This will apply to submissions of the same or substantially the same work in the same semester or in different semesters.
   2. Students may not normally submit the same or substantially the same work in two different classes for academic credit even if the work is being graded on different bases in the separate courses (e.g., graded for research effort and content versus grammar and spelling).
   3. Students may resubmit a prior academic endeavor if there is substantial new work, research, or other appropriate additional effort. The student shall disclose the use of the prior work to the instructor and receive the instructor’s permission to use it PRIOR to the submission of the current endeavor.
   4. Students may submit the same or substantially the same work in two or more courses with the prior written permission of all faculty involved. Instructors will specify the expected academic effort applicable to their courses and the overall endeavor shall reflect the same or additional academic effort as if separate assignments were submitted in each course. Failure by the student to obtain the written permission of each instructor shall be considered a multiple submission.

   E. Complicity

   Definition

   Complicity is assisting or attempting to assist another person in any act of academic dishonesty.

   Clarification

   1. Students may not allow other students to copy from their papers during any type of examination.
   2. Students may not assist other students in acts of academic dishonesty by providing material of any kind that one may have reason to believe will be misrepresented to an instructor or other university official.
   3. Students may not provide substantive information about test questions or the material to be tested before a scheduled examination unless they have been specifically authorized to do so by the course instructor. This does not apply to examinations that have been administered and returned to students in previous semesters.
F. Misconduct in Research and Creative Endeavors

Definition

Misconduct in research is serious deviation from the accepted professional practices within a discipline or from the policies of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing creative endeavors. It includes the fabrication or falsification of data, plagiarism, and scientific or creative misrepresentation. It does not include honest error or honest disagreement about the interpretation of data.

Clarification

1. Students may not invent or counterfeit information.
2. Students may not report results dishonestly, whether by altering data, by improperly revising data, by selective reporting or analysis of data, or by being grossly negligent in the collecting or analysis of data.
3. Students may not represent another person’s ideas, writing or data as their own.
4. Students may not appropriate or release the ideas or data of others when such data have been shared in the expectation of confidentiality.
5. Students may not publish, exhibit, or perform work in circumstances that will mislead others. They may not misrepresent the nature of the material or its originality, and they may not add or delete the names of authors without permission.
6. Students must adhere to all federal, state, municipal, and university regulations for the protection of human and other animal subjects.
7. Students may not conceal or otherwise fail to report any misconduct involving research, professional conduct, or artistic performance of which they have knowledge.
8. Students must abide by the university’s Policy on Research Integrity where applicable, which can be found under Policies at the following web address: www.orsp.cmich.edu. Applicability of this policy for students is found under I. GENERAL PROVISIONS, A. Applicability, number 3.

G. Computer Misuse

Definition

Misuse of computers is disruptive, unethical, or illegal use of the university’s computer resources, including any actions which violate the university’s Rules for Computing and Networking Resources. Misuse of computers also includes disruptive, unethical, or illegal use of the computers of another institution or agency in which students are performing part of their academic program.

Clarification

1. Students may not use the university computer system in support of any act of plagiarism.
2. Students may not monitor or tamper with another person’s electronic communications.
3. Students may not use university computer resources to engage in illegal activity, including but not limited to the following: illegally accessing other computer systems, exchanging stolen information, and violating copyright agreements which involve software or any other protected material.

H. Misuse of Intellectual Property

Definition

Misuse of intellectual property is the illegal use of copyright materials, trademarks, trade secrets or intellectual properties.

Clarification

Students may not violate the university policy concerning the fair use of copies. This can be found under Policies at the following web address: www.orsp.cmich.edu.

3. Ethical and Professional Behavior

Students are expected to adhere to the ethical and professional standards associated with their programs and academic courses. Such standards are generally communicated to students by instructors and are available through publications produced by professional organizations. Unethical or unprofessional behavior will be treated in the same manner as academic dishonesty.

4. Sanctions for Violations of the Policy on Academic Integrity

In cases involving violation of the Policy on Academic Integrity, determination of the student’s grade and status in the course are made by the instructor. The instructor’s determination can be appealed by the student to the dean of the college in which the offense has occurred.

5. Process for Handling Alleged Violation of this Policy

A. Informal Proceedings

1. Conference with the Student

A conference between the student and the instructor is the first, and may be the only, step in addressing alleged violations of the Policy on Academic Integrity.

If an instructor has reason to believe that a student has committed a violation of the Policy on Academic Integrity, the instructor will contact the student within a reasonable period of time to notify the student of the suspected violation of the Policy on Academic Integrity and to either discuss the matter with the student or set up an informal meeting between the student and instructor. The student has the right to decline to talk about the matter with the instructor until they have a meeting. Any meeting shall take place as soon as possible after the discovery of the alleged violation. Neither the instructor nor the student may be represented or accompanied by an attorney or any other advisor.¹²

At any meeting, the instructor will inform the student of the details of the alleged violation and will give the student a copy of the Policy on Academic Integrity. It will be the responsibility of the instructor to present evidence of the alleged violation of the Policy on Academic Integrity. The student will be provided the opportunity to respond to the allegation and may explain any suspected or alleged misconduct by presenting evidence, giving additional information relevant to the matter, explaining extenuating or mitigating circumstance, or acknowledging a violation.

If the student declines to discuss the matter or attend a meeting with the instructor, or is unavailable for more than ten (10) business days, the instructor shall make a determination as to whether a violation of this Policy has occurred and what the appropriate sanction will be.

If, after completing the above process, the instructor believes there is a preponderance of evidence that the student violated the Policy on Academic Integrity, the instructor may make an admonition to the student (i.e., an oral statement that the student has violated the Policy on Academic Integrity) or impose one or more of the following:

a. Warning. A written notice that the student has violated the Policy on Academic Integrity and that further violation may result in additional sanctions. Faculty are encouraged to make a copy of this letter part of a file on the violation maintained in the Office of Student Life or the College of Graduate Studies.

b. Revision of Work. A requirement that the student revise or replace the work in which the violation occurred. The instructor may assign a deferred grade pending the replacement or revision of the work.

c. Reduction in Grade. The grade on the assignment or in the course may be lowered.

In addition to the above sanctions, an instructor may refer the matter to the Office of Student Life or the College of Graduate Studies for formal proceedings seeking additional sanctions under the Code of Student Rights, Responsibilities and Disciplinary Procedures.

When an instructor decides to impose any sanction(s) the instructor will notify the student of this decision by sending a letter to the student through mail. The letter will inform the student of the sanction(s) imposed because of the violation of the Policy on Academic Integrity. The notice will be mailed to the last address for the student on file with the University Office of the Registrar. The notice will be deemed received two (2) days following the date the notice is posted at facilities of the United States Post Office. In the absence of mailing, personal delivery to the student, or delivery to the last home address on file in the Office of the Registrar constitutes proper notice. If personal delivery to the student or delivery to the last home address is used, the date notice is so delivered shall be deemed the date the notice is received. A faculty member is encouraged to make a copy of this letter part of a file on the violation maintained in the Office of Student Life or the College of Graduate Studies.

Instructors are encouraged to report incidents of violations of this Policy on Academic Integrity and any sanctions they have imposed to their department chairs and / or the program directors, and to the director of the Office of Student Life (when the incident involves an undergraduate student) or the Associate Dean of the College of Graduate Studies (when the incident involves a graduate student). The Office of Student Life or the College of Graduate Studies will document the incident, maintain a file of its records, and may initiate formal proceedings for disciplinary action against the student under the “Code of Student Rights, Responsibilities and Disciplinary Procedures.”

The Office of Student Life or the College of Graduate Studies will maintain a confidential file on students for one (1) year after they graduate or have not been enrolled at the university for a period of three (3) years. If students are suspended, the records are maintained for one (1) year after graduation or five (5) years after last enrollment. If students are dismissed records are maintained indefinitely.
2. Appeal of an Informal Proceeding

A student sanctioned for violation of the Policy on Academic Integrity may appeal the instructor’s decision that a violation of the Policy has occurred, and / or the sanction.

The appeal must be submitted in writing to the instructor and to the dean2 of the college in which the violation occurred not later than ten (10) business days after the student has been notified of the instructor’s decision. An appeal not made within the time limit will not be heard unless an exception is made by the dean of the college.

An appeal is made by submitting a written statement of appeal to the instructor and dean of the college within the time limit. The written statement of appeal must state: the name of the person appealing, the basis of the appeal, the instructor making the decision from which the appeal is made, and the remedy which the person appealing is requesting from the dean.

As soon as practical, the dean will convene a committee comprised of faculty and students to hear the appeal and to make a recommendation to the dean. The dean will designate one member of the committee as the Proceedings Officer. The role of the committee is to advise the dean.

The student making the appeal may have an advisor of the student’s choice present at the hearing of the appeal. If the student’s advisor is an attorney, the student must notify the Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

The Proceedings Officer is responsible for notifying members of the appeals committee of the appeal and for setting a time and place for holding a meeting of the appeals committee. The Proceedings Officer will provide notice of time and place of the meeting of the appeals committee to the student, instructor, and other University persons deemed appropriate by the Proceedings Officer.

The Proceedings Officer will assemble the documentary evidence introduced at the hearing, the record made of the hearing, and the file made in connection with the matter and will make these materials available to the appeals committee.

The appeals committee may establish its own method of procedure for conducting any appeal appropriate to the circumstances designed to achieve fairness to the student charged as well as the interests protected by the Central Michigan University Policy on Academic Integrity.

The appeals committee makes its determination based solely on the record of the student’s hearing, facts that are presented to the appeals committee, and the arguments before the appeals committee. The appeals committee will use as its standard of review a preponderance of evidence, and it will be the instructor who has the burden of proof.

The purpose of the appeals committee is to decide if the findings of the instructor were so incorrect that the decision should be changed. It is not the purpose of the appeals committee to substitute their judgment for that of the instructor. It is not the purpose of the appeals committee to decide if it would have reached the same decision had it been the instructor. It is not the function of the appeals committee to reheat the charges against the student; it is an appeal of the findings of the instructor. The appeals committee may:

- Find that there are not sufficient facts presented to warrant the findings of fact made by the instructor and may recommend to the dean of the college setting aside the finding or determining the facts differently or setting aside or changing a sanction
- Recommend to the dean of the college that a new conference be held by the instructor

After receiving this recommendation the dean will either sustain or deny the appeal. The dean’s decision will be in writing and will state the findings of the fact, conclusion as to whether there has been a violation of the Policy on Academic Integrity, and / or a decision that the instructor is to hold a new conference with the student. The dean’s decision will be final.

If it is necessary pending the resolution of an appeal, the student will be assigned a deferred grade.

A copy of the appeal and the dean’s resolution of the appeal will be part of the file on the violation maintained in the Office of Student Life or the College of Graduate Studies.

Failure to appeal a sanction after an informal conference with an instructor constitutes acknowledgement that the student violated the Policy on Academic Integrity.

B. Formal Proceedings in the Office of Student Life or the College of Graduate Studies

If the instructor believes that a student has violated the Policy on Academic Integrity and that the violation is sufficiently serious, the instructor may refer the case to the Office of Student Life or the College of Graduate Studies for the consideration of additional sanctions. The following procedures will be followed.

1. As part of the letter notifying the student of the sanction(s) resulting from the informal meeting, the instructor will inform the student that formal proceedings in the Office of Student Life or the College of Graduate Studies are being requested.

2. The instructor will forward all documentation supporting the allegation of violation to the Office of Student Life or the College of Graduate Studies with a cover letter describing the situation. Examples of documentation include the course syllabus, quiz or exam, assignment, source of plagiarism.

3. The “Code of Student Rights, Responsibilities and Disciplinary Procedures” will govern the sanctions which can be imposed, and the appeal process.

4. The Office of Student Life or the College of Graduate Studies will determine a sanction and will notify the instructor of its determination.

5. This sanction will be recorded on the student’s permanent disciplinary record, subject to release only under the terms of the Family Educational Rights and Privacy Act.

6. The instructor will be notified of the outcome of the hearing.

C. Proceedings With a Department or Program

1. Departmental or Program Action

a. In cases where an instructor judges a student to have violated the Policy on Academic Integrity, that person is encouraged to report the incident to the chair of the department or unit in which the student’s program is housed.

b. Departments and programs will follow their internal procedures for deciding whether the student’s status in the academic program should be reviewed because of the violation of the Policy on Academic Integrity and, if so, what review process will take place.

2. Appeal of Departmental or Program Action

A record of the department, program and / or college decision and appeal (if any) will be part of the file on the violation of Policy on Academic Integrity maintained by the Office of Student Life or the College of Graduate Studies. Approved by the Academic Senate. 5/01/01

1 It is understood that “there is nothing to preclude other persons from being present, as long as they are not present as lawyers or advisors” (Academic Senate minutes, May 1, 2001).

2 It is understood that “it is not always possible to have a ‘Conference with the Student’ before grades are due” (Academic Senate minutes, May 1, 2001).

3 It is understood that deans may delegate the responsibilities associated with an appeal to a designee—often an associate dean (Academic Senate minutes, May 1, 2001).
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