The purpose of this bulletin is to provide information about CMU’s academic programs available in the 2009-10 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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Welcome to Central Michigan University!

At CMU, you will discover education that is meaningful to society as well as professionally- and community-focused, providing you with the knowledge and skills to serve and succeed. CMU is committed to engaging you in active learning, research, clinical work, and global experiences that will prepare you for a life of fulfilling involvement and professional accomplishment.

You will be able to choose from an impressive breadth of more than 200 academic programs at CMU, including nationally ranked programs in entrepreneurship, journalism, music, audiology, teacher education, psychology, and physician assistant. And you will learn from accomplished professors who have a strong commitment to teaching and a focus on involving you directly in applied research, scholarship, creative activity and other hands-on learning.

The CMU Leadership Institute and Volunteer Center encourage you to enhance your education with civic service, building a portfolio of active engagement that will empower you to improve the quality of life wherever you live and travel. In 2008, 73 percent of CMU seniors – well above the national average – had completed volunteer or community service projects while at CMU. Our faculty, staff, and advisors support you and encourage you to consider additional real-world experiences. They form partnerships to provide you with internship opportunities, arrange and lead study abroad programs, guide your academic choices and much more.

Founded in 1892, CMU today is Michigan’s fourth largest public university and the 67th largest in the nation. As you continue your undergraduate program and eventually join the proud community of more than 180,000 CMU alumni worldwide, CMU is dedicated to providing you with a superior learning environment and global perspective to compete and thrive in an increasingly interdependent world, whether that means entering the workforce directly or enrolling in a graduate program.

On behalf of the entire university community, we welcome you and encourage you to actively engage in your academic career at CMU.
General Information

Board of Trustees

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
Mr. John D. Hurd, Munith 2016
Dr. Sam R. Kottamasu, Saginaw 2012
Ms. Sarah R. Opperman, Midland 2016
Ms. Gail F. Torreano, Northville 2010

Administration 2009

Kathleen M. Wilbur (2002)* Interim President; B.A., Michigan State University
David A. Burdette (2008) Vice President for Finance 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; Ph.D., Central Michigan University; E.D.D., Columbia Pacific University
Ian R. Davison (2008) Dean, College of Science and Technology; B.Sc., University of London; Ph.D., University of Dundee
Cam Enarson (2009) Interim Dean, School of Medicine; B.A., Concordia College; B.M.S. and M.D., University of Alberta; M.B.A., University of Pennsylvania
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
Salma Ghanem (2009) Dean, College of Communication and Fine Arts, B.A., The University of Texas - Pan American, M.A. and Ph.D., The University of Texas at Austin
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 President and Executive Director, ProfEd (Off-Campus Programs); B.A., Scripps College; M.B.A., Claremont Graduate University; Ph.D., Old Dominion University
Chris D. Ingersoll (2009) Dean, The Herbert H. and Grace A. Dow College of Health Professions; B.S., Marietta College; MA, Indiana State University; Ph.D., University of Toledo
Kathryn E. Koch (1986) Interim Dean, College of Education and Human Services; B.S., Kent State University; M.A., Kent State University; Ph.D., Ohio State University
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 E. Rehm (1975) Vice President/Technology/CIO; B.M., M.M., Cleveland Institute of Music
Bruce K. Roscoe (1980) Dean of Students; B.S.H.E., Ph.D., University of North Carolina at Greensboro
E. Gary Shapiro (1978) Interim Executive Vice President and Provost; A.B., Wayne State University; A.M., Ph.D., University of Michigan
Edward A. Tolcher (1999) Interim Vice President, Development and Alumni Relations; BME, Central Michigan University

*The year in parentheses indicates the date first employed by the university.
# University Calendar

(Tentative)

## Summer Sessions

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<th>2010</th>
<th>2011</th>
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<td>Phase II Registration-Drop/Add</td>
<td>May 11-19</td>
<td>May 10-18</td>
<td>May 9-17</td>
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<tr>
<td><strong>First Session (Six Weeks)</strong></td>
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<tr>
<td>Classes Begin</td>
<td>May 18</td>
<td>May 17</td>
<td>May 16</td>
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<tr>
<td>Memorial Day Recess</td>
<td>May 25</td>
<td>May 31</td>
<td>May 30</td>
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<tr>
<td>Classes End</td>
<td>June 25</td>
<td>June 24</td>
<td>June 23</td>
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<tr>
<td><strong>Second Session (Six Weeks)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Classes Begin</td>
<td>June 29</td>
<td>June 28</td>
<td>June 27</td>
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<tr>
<td>Independence Day Recess</td>
<td>July 3</td>
<td>July 5</td>
<td>July 4</td>
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<tr>
<td>Classes End</td>
<td>August 6</td>
<td>August 5</td>
<td>August 4</td>
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## Fall Semester

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<th>2010</th>
<th>2011</th>
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<td>Aug. 17-28</td>
<td>Aug. 16-27</td>
<td>Aug. 15-26</td>
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<tr>
<td>Classes Begin</td>
<td>Aug. 24</td>
<td>Aug. 23</td>
<td>Aug. 22</td>
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<tr>
<td>Labor Day Recess</td>
<td>Sept. 7</td>
<td>Sept. 6</td>
<td>Sept. 5</td>
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<td>Thanksgiving Recess</td>
<td>Nov. 25-30</td>
<td>Nov. 24-29</td>
<td>Nov. 23-28</td>
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<tr>
<td>5:00 p.m. Wed - 7:30 a.m. Mon.</td>
<td></td>
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<tr>
<td>Classes End</td>
<td>Dec. 5</td>
<td>Dec. 4</td>
<td>Dec. 3</td>
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<tr>
<td>Examination Week</td>
<td>Dec. 7-11</td>
<td>Dec. 6-10</td>
<td>Dec. 5-9</td>
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<tr>
<td>Semester Ends</td>
<td>Dec. 12</td>
<td>Dec. 11</td>
<td>Dec. 10</td>
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<tr>
<td>Commencement</td>
<td>Dec. 12</td>
<td>Dec. 11</td>
<td>Dec. 10</td>
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## Spring Semester

<table>
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<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<td>Jan. 4-15</td>
<td>Jan. 3-14</td>
<td>Jan. 3-13</td>
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<tr>
<td>Classes Begin</td>
<td>Jan. 11</td>
<td>Jan. 10</td>
<td>Jan. 9</td>
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<tr>
<td>Martin Luther King Jr. Day (no classes)</td>
<td>Jan. 18</td>
<td>Jan. 17</td>
<td>Jan. 16</td>
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<tr>
<td>Spring Recess</td>
<td>March 6-15</td>
<td>March 5-14</td>
<td>March 3-12</td>
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<td>1:00 p.m. Sat - 7:30 a.m. Mon.</td>
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<tr>
<td>No Classes</td>
<td>April 29-30</td>
<td>April 28-29</td>
<td>April 26-27</td>
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<td>May 1</td>
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<td>May 3-7</td>
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<td>Semester Ends</td>
<td>May 8</td>
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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 - 2009
Central Michigan University is Michigan’s fourth largest university, with 20,000 students on its Mount Pleasant campus and another 7,000 enrolled on line and at more than 60 locations nationwide — including 18 centers and sites across the state of Michigan.

Founded in 1892 and becoming a university in 1959, CMU is helping reshape Michigan’s future and preparing students nationwide for careers in the global economy.

The university is distinguished for its supportive and engaging learning environment, employing more than 1,500 accomplished professors who share a strong commitment to teaching and a focus on involving students in applied research, scholarship, creative activity, internships, leadership and volunteer experiences. CMU’s impact and influence extend far beyond its main campus into the state, nation and world:

- Nationally recognized for its Leadership Institute and new academic minor in leadership, the first one to be offered by a Michigan university
- Award-winning Honors Program, which administers the prestigious Centralis Scholarship Program and oversees approximately 200 faculty-mentored honors undergraduate research projects annually
- Model Volunteer Center maintaining a volunteer database of more than 4,000 students who take advantage of numerous opportunities to help others
- Four professors named Carnegie Foundation for the Advancement of Teaching Michigan Professor of the Year — more than any other Michigan school
- Ranked among the top 20 most productive research universities of its size (Academic Analytics report)
- Academic residential halls to enhance learning and community in areas including business, education and human services, health professions, science and technology, music, honors, and leadership and public service
- Eleven new academic and residential buildings in the last 10 years, including the new LEED-certified Education building opening in fall 2009

Culture, community, resources

CMU is located in Mount Pleasant, Michigan, a classic college town that is home to 26,000 people and growing. Mount Pleasant offers a blend of natural features, exciting developments and small-town life complemented by university culture. Visitors, friends, family members, siblings and others are always welcome to visit CMU’s park-like campus or to attend plays, concerts, speeches, athletic events, library exhibits, summer camps, and much more.

Features include:

- **Culture and entertainment.** University Theatre, University Events, the School of Music and the student-run Program Board offer year-round world-class plays, entertainment, concerts, and more.
- **Athletics.** CMU competes in seven men’s and nine women’s sports, and CMU athletes are accomplished in the field and the classroom. The university’s Division I Mid-American Conference student/athletes have earned the MAC Academic Achievement Award for best cumulative GPA 10 of the last 11 years. During the same period, Chippewa teams have won 33 MAC titles in 13 of 16 sports and played in three consecutive Motor City Bowl games. CMU’s summer sports camps are recognized among the best in Michigan.
- **Charles V. Park Library.** CMU’s library houses more than 1 million volumes on 33 miles of electronically movable shelving, but it doesn’t take a personal visit to acquire resources. The library’s Off Campus Library System is a well-established model of extended electronic access for higher education, and its new digital repository, CONDOR, archives and makes accessible the scholarly and creative works of faculty, students and staff. The Clarke Historical Library, located along the main corridor of the library, regularly displays items from its extensive list of historical holdings.

To view upcoming CMU events, visit cmich.edu. Tours of campus are available weekdays and many Saturdays, arranged through the Admissions Office. Call 989-774-3076 or 888-292-5966.
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

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

Accelerated Degrees (Bachelor’s and Master’s)
The Accelerated Master’s Degree Program (AMDP) allows students to reduce the total number of credits required to complete their undergraduate and graduate degrees by applying up to twelve 500 and 600-level credit hours toward their graduation requirements on both degree programs. Generally, courses required on the undergraduate major may not be counted on the graduate program. Students must enroll for the courses at the graduate level and may not be enrolled in more than 15 credit hours (graduate and undergraduate combined) per semester. Not all academic programs offer the AMDP. If you are admitted to an AMDP your financial aid may be affected. Contact the Office of Scholarships & Financial Aid for information (989-774-3674 or cmuosfa@cmich.edu).

• Apparel Product Development and Merchandising Technology
• Computer Science
• Economics
• Geographic Information Science
• Human Development and Family Studies
• Mathematics
• Political Science
• Psychology, Experimental

All Bulletins may be seen at https://bulletins.cmich.edu/
Off-Campus Programs

Merodie A. Hancock, Vice President and Executive Director
989-774-4456; e-mail: cmuoffcampus@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, independent study, and other forms of individualized study.
5. Utilize various distance education media.

In addition to complete degree programs, students may also earn credit for individual courses offered off campus each semester at locations across Michigan and online. 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 schedule for CMU Online courses has been combined with the schedules of educational opportunities at the various off-campus sites in Michigan and together they provide enrollment, registration, advising, and other pertinent information for off-campus students. CMU Online courses and Michigan site-based courses coincide with main 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 Sciences (B.S.) degree or a Bachelor of Applied Arts (B.A.A.) degree with a major in Administration. Also available are the B.S. degree with a major in Information Technology, the B.S. degree with a major in Vehicle Engineering Design Technology, or the B.S. degree with an option in Community Development. The B.S. degree in Education is also available at specific locations.

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.

CMU Online

CMU Online is committed to providing educational opportunities to people whose busy lives prevent them from attending traditional, face-to-face classes. With new technologies, dedicated staff, and accessible instructors, CMU Online courses are not a solitary endeavor. Students interact with each other and with their instructors using discussion boards, chat rooms, and e-mail.

There are several bachelor’s degree completion programs offered through CMU Online. Advisors are available to help students determine the programs that best optimize their existing credits. Students may also go on to complete an entire master’s degree online or even an online Doctorate in Health Services 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.
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 lifestyle and is committed to ensuring the transfer of relevant credits, scheduling courses at convenient times and locations, offering online courses, and providing credit opportunities for prior learning experiences and military education relevant to the degree. In keeping with these goals, CMU supports the Servicemember’s Opportunity College (SOC) Consortium, an organization jointly developed by educational representatives of each of the Armed Services, the Office of the Secretary of Defense and a consortium of leading institutions of higher education, to provide flexibility to service members, their families, and veterans seeking college degrees.

Bulletin
Students participating in programs offered through Off-Campus Programs should refer to the current Off-Campus Programs Bulletin for regulations and fees.

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.
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 a one-year or two-year 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, Central Michigan University, 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

**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 and Dramatic Arts**
- MA  Interpersonal & Public Communication

**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 Leadership**
- MA  Educational 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 Science

Health Sciences
MA Health Promotion & Program Management
DHA Health Administration

History
MA History
MA History - Joint
PhD History - Joint

Human Environmental Studies
MS Apparel Product Development & Merchandising Technology
MS Human Development & Family Studies
MS Nutrition & Dietetics

Humanities
MA Humanities

Engineering and Technology
MA Industrial Management & Technology

Mathematics
MA Mathematics
MAT Mathematics
PhD Mathematics

Music
MM Composition
MM Conducting
MM Music Education
MM Performance
MM Piano Pedagogy

Neuroscience
Ph.D. Neuroscience
M.S. Neuroscience

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

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

Secondary Education
MA Teaching in the Senior High

Accelerated Degrees (Bachelor’s and Master’s)
Apparel Product Development and Merchandising Technology
Computer Science
Economics
Geographic Information Science
Human Development and Family Studies
Mathematics
Political Science
Psychology, Experimental

Graduate Certificates
Acquisitions Administration (MSA)
Autism
Business Computing
Data Mining
Educational Technology
Enterprise Systems
European History
Gerontology
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), Council on 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), the Accreditation Commission for Audiology Education of the American Academy of Audiology, the Accreditation Commission of the Council for Interior Design Accreditation (CIDA), and the National Association of Industrial Technology (NAIT).

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/Affirmative_Action_Office/Nondiscrimination_Policy.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 but are not limited to cultural celebrations, Supplemental Instruction, Men About Change mentoring program, and the Multicultural Award of Distinction, 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/.

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 interconnected 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://www.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/.

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/gltp/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.


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.
General Information

Mark Poindexter, Executive Director of International Affairs
Bovee University Center 106; 989-774-4308; http://www.cmich.edu/international

Mission
The mission of the Office of International Affairs (OIA) is to support the University’s central purpose of educating students who will be responsible global citizens and effective world leaders. OIA provides campus-wide leadership in coordinating, planning, developing, and financing international programs and initiatives.

OIA’s role includes internationalization of curriculum through faculty international development, international student recruitment, undergraduate international student and English language student admissions, study abroad, services to international students, and coordination of linkage agreements with universities and other educational institutions outside of the United States.

To achieve these goals, OIA:
1. develops recruiting strategies to increase the number of international students studying at CMU, as well as the cultural diversity of the international student population;
2. provides comprehensive support services to international students and faculty so that they will have a smooth transition to CMU life and a successful stay at CMU;
3. enhances the level of international understanding among members of the CMU community by sponsoring, organizing, and developing international programs that are academically, culturally, and socially beneficial;
4. maintains an up-to-date CMU International Education Information Clearinghouse; and
5. remains informed of the development of international education regionally, nationally, and internationally through regularly attending conferences and meetings as well as through participation in related professional development workshops.

Highlights of Services

International Students
Pre-arrival. New international students and visiting scholars are provided pre-arrival materials to smooth their transition to the United States and Central Michigan University. Admissions documents and a welcome booklet provide information on topics important to those preparing for their education in a new country and educational system. Among the subjects covered are housing, health insurance, living expenses, and F- and J- non-immigrant visa status.

Airport pick-up. The OIA staff coordinates airport transportation from the Midland-Saginaw-Bay City (MBS) and Lansing (LAN) airports to campus for new international students during specified time periods just prior to the beginning of each semester.

Orientation. New students and scholars report to OIA 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; introduces them to U.S. culture and the educational system at CMU; and provides information on banking, health insurance, safety, and F-1 and J-1 non-immigrant regulations.

Other services. In addition to its advising service, OIA coordinates programs designed to help students become familiar with campus and community life.

Faculty and Staff Exchanges
CMU faculty and staff are encouraged to work with OIA staff when exploring and applying for international opportunities.

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 information among the CMU community interested in international education.

Community Activities
OIA 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; 989-774-3346; 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
• Student Retention
• 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 Director, 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, 989-774-3018.

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, periodical 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 materials 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 2,500 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 Wilbert Wright Collection of Africana and Afro-Americana. 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 989-774-3352 for Library hours or 989-774-3864 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 first floor of the EHS Building. 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. Laminating 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 989-774-3549 or accessing the website at http://www.ehs.cmich.edu/imc.
Information Technology

Roger Rehm, Vice President/Technology/CIO
Warner 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. 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.

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.

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.

Emergency Notification System. CMU has implemented measures to enhance communication in the event of an emergency and students, faculty, and staff can register to receive phone calls, text messages, or alternative e-mail address alerts through the Central Alert system. Registration for this system is accessed through: https://myaccount.cmich.edu/home.asp

Cellular Phone Service. OIT offers Alltel, Verizon, AT&T, Nextel, and Sprint 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 rental 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.

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.

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.

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. 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 Help Desk at 989-774-3662 or visit the IT Web site at 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.

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

Tom Trionfi, Interim Director
Foust Hall; 989-774-3944

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, 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 200. 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 989-774-3059.

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
Bovée UC 203; 989-774-7472

Campus Residency Policy

Central Michigan University’s campus residency policy requires that freshmen and sophomore students live in a residence hall. 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). The sophomore requirement may be waived in years when space is not available on campus.

Residency Policy for 2009-2010

The sophomore requirement will be waived for the 2009-2010 academic year with these exceptions:

• Students who have not completed 24 credit hours by the end of spring 2009.
• Students on CMU merit and talent based scholarships of $2,000 or greater.

These students are required to live on campus their sophomore (second) year.

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 or all women. 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.

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.
General Information

The physical arrangements of the 22 residence halls vary, but the 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 at 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 2009-2010 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:

- Athletic Management Community in Saxe Hall
- First Year Learning Community in Wheeler Hall
- Global Village in Herrig Hall
- Honors Program in Larzelere and Trout Halls
- Leader Advancement Scholars in Barnes Hall
- Multicultural Advancement and Lloyd Cofer Scholars in Troutman Hall
- Public Service Residential Community in Barnes Hall
- Transfer Student Community in Kesseler and Kulhavi Halls
- Women in Leadership in Sweeney Hall

Note: Residential Colleges and Theme Halls comprise one or more floors in a residence hall, so students who do not have an interest in a specific academic program may still apply for these halls.

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 360 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; Independeti 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.
Printing Services/Copy Centers
Printing Services is a full service, four color operation equipped to handle the university’s on- and off-campus printing needs. Printing Services also offers full pre-press services, including computerized image assembly, and full bindery services with various options in finish work. The university’s standard class bulk mailing operations are also a part of Printing Services. Classes interested in printing are welcome to arrange tours of the printing facility.

Copy Centers to accommodate faculty, staff, and students are located in the Bovee University Center, and the main printing facility located in the Combined Services Building. See the website at http://www.print.cmich.edu/ptservices.htm.

University Recreation (URec)
Stan Shingles, Director
SAC 200; 989-774-3686

University Recreation (URec) manages the Student Activity Center (SAC), Rose Center Complex, the Outdoor Sports Complex, the outdoor tennis courts, two satellite fitness facilities in the Towers and East Area residence halls and an 18 Hole Championship Disc Golf Course.

The SAC is 180,000 square feet of recreation space and has hosted more than 13 million visitors since it opened in 1990. With a spacious and dynamic environment, the SAC provides fitness and recreation programming meeting the needs of our diverse student population.

URec is dedicated to providing outstanding recreation, leisure and wellness programs, services and facilities for our students, members and guests in a safe environment that promotes healthy lifestyles, values diversity, and contributes to co-curricular learning and leadership opportunities.

Facilities are provided for aquatics, fitness and weight training, group fitness, racquetball courts, an Injury Care Center and facilities are provided for aquatics, fitness and weight training, group fitness, racquetball courts, an Injury Care Center and CMU’s 18 hole Disc Golf course.

In addition, URec offers comprehensive fitness programs designed to meet all fitness levels and wellness interests. URec offers over thirty group fitness classes and personal trainers are available to provide assessments, goal-setting and specialized programs.

Learn to Swim programs (USwim) are available throughout the year. The SAC manages two pools, one in the SAC and one in the Rose Center.

The Intramural Sports program offers more than thirty leagues with something for everyone, from one-day special events to semester long individual and team sports. Activities are offered in three divisions: men, women, and co-recreational.

Club Sports compete at an intercollegiate level with over thirty sports offered, providing an excellent opportunity to practice leadership, organization and teaching skills.

URec offers a wide variety of employment opportunities, employing over 300 students during the academic year.

Special events are held in the SAC, including Special Olympics Michigan, and Alumni events, SIBS weekend, CMU Up All Night and Freshman Orientation (Safari). We are a premier recreation provider with a national reputation for excellence. For more information about URec programs and facilities, contact University Recreation 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 Office
Jon Humiston, Student Ombuds Officer / President’s Office Assistant
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.

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/.

General Information 25
Public Relations and Marketing

Renee Walker, Associate Vice President
West 202; 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 http://cmubs.bio.cmich.edu/default.shtml.

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 1909. 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 989-774-8000 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; WWCN (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 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.

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.

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. In recent years programs have been added that include Young Athlete Programs, Healthy Athlete Programs and Unified Sports for inclusive opportunities. Over the years, thousands of students, faculty and staff have served as volunteers for Special Olympics Michigan. CMU student volunteers can help change lives by working at the State Summer Games, held on campus the last week of May or the first week of June; at the State Winter Games, held in late January or early February; become interns and/or serve 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 989-774-3911 or visit the website at http://www.somi.org. Be a Fan of Special Olympics!

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 989-774-3493.

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 sports, game shows, 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 13,000 watt HD signal throughout the region to offer applied experience in every aspect of radio operations and management. The station is streamed online at www.wmhw.org.

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 exhibiting 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.
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.
Admissions

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/x1119.xml) 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 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. Placement 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 the 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 contact 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. 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, 989-774-7506) 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 (Foust 102, 989-774-3381), Career Services (Bovee University Center 215, 989-774-3068), the EHS Center for Student Services (EHS 421, 989-774-3309), and Business Student Services Office (Grawn 105, 989-774-3124) offer professional assistance in career decision making.

The Undergraduate Academic Services area of the Registrar's Office (Warriner 123, 989-774-3504) 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.

(continued)
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 credit) Career and Self Exploration.
  - Participate in various self assessment exercises designed to match your interests and abilities with academic and career opportunities. CMU offers the following personalized and computerized self assessment exercises: Focus Program and Strong Interest Inventory (see Career Services website: www.careers.cmich.edu).

If you are interested in business:
- Contact the Office of Business Student Services (Grawn Hall 105, 989-774-3124) for information regarding the College of Business Administration or to schedule a meeting with a business advisor.

If you are interested in pre-professional studies (pre-law, pre-med):
- Talk with the appropriate pre-professional advisor (Advisors are listed in the Class Schedule Booklet).

If you are interested in teaching:
- Visit the EHS Center for Student Services, EHS 421, to learn more about teacher education programs and schedule a meeting with a teacher education academic advisor. Website: www.ehs.cmich.edu/css; phone: 989-774-3309

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 (Bovee University Center 106, 989-774-4308) or an internship coordinator in the Career Services office (Bovee University Center 215, 989-774-3068). Your academic department of choice may also have advice for you.

Teaching:
- 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.

Business:
- Complete the requirements for admission to the College of Business Administration outlined in the Undergraduate Bulletin.
- Meet with a College of Business Administration advisor in Grawn Hall 105, 989-774-3124.

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, 989-774-3504. An Assistant Director will review your individual course of study and determine remaining graduation requirements. Register with Career Services (Bovee University Center 215, 989-774-3068).

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, 989-774-3504 (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 (Bovee University Center 215, 989-774-3068). 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.
Academic Supports

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 undergraduate courses at the 100 and 200 level. Some subjects are considered to be traditionally difficult, and walk-in tutoring is provided in some of these subject areas. The Math Assistance Center is open to students in 100 and 200 level math courses and the Writing Center is available to help students with all types of writing. 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.

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.registars.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 should be submitted. You may obtain an application for graduation at the Student Service Court (Bovee University Center 119) or Undergraduate Academic Services (Warriner Hall 123, 989-774-3504). 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, Warriner Hall 123, 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 licensed 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/substance 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 and weekends to assist students and CMU faculty and staff when there are urgent or 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 at:

- 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 and/or social workers 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.

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 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 989-774-3532; EHS 326.

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 Psychology 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 area. 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](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 this 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](http://www.careers.cmich.edu)), in our Grawn Satellite office and in Career Services.

For more information, contact Career Services, 215 Bovee University Center, 989-774-3068, or visit us online at [www.careers.cmich.edu](http://www.careers.cmich.edu).
Registration

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.registrars.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, 989-774-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 2009-10 academic year. Contact the Receivable Accounting office at 888-610-4991 for updated information, or see http://www.cmich.edu/x2179.xml for updates.

Tuition Rates* for On-Campus Courses

<table>
<thead>
<tr>
<th>Level of Courses</th>
<th>08-09 Rates Per Credit Hour*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Michigan Residents</td>
</tr>
<tr>
<td>New Undergraduate students:</td>
<td>324.00</td>
</tr>
<tr>
<td>Students admitted to the College of Graduate Studies</td>
<td>413.00</td>
</tr>
<tr>
<td>Courses level 600-999</td>
<td>413.00</td>
</tr>
<tr>
<td>Doctoral Students:</td>
<td>470.00</td>
</tr>
</tbody>
</table>

*2009-10 tuition rates for incoming freshmen and transfer students will be set in July 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 in addition to a $30 monthly late fee.

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.

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 online at http://www.controller.cmich.edu/downloads/Receivables/authform.doc, on the student portal, or in the Student Service Court, Bovee University Center 119.

Billing Procedure and Delinquent Account Policy

Central Michigan University sends monthly billing statement notifications electronically to CMU global e-mail addresses. Students are responsible for accessing these monthly statements in the QuikPAY Billing System via the CMU Portal to view their account balances and payment due dates. The monthly statements may include tuition, on-campus housing, bookstore, health services, telecom, and other miscellaneous charges.

Students may incur late fees if the monthly balance is not paid by the scheduled due date. Monthly late fees will be assessed to the account as follows:

<table>
<thead>
<tr>
<th>Past Due Amount</th>
<th>Late Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>$.01-$9.99</td>
<td>No late fee</td>
</tr>
<tr>
<td>$10.00-$59.00</td>
<td>$1.00 per month</td>
</tr>
<tr>
<td>$60.00 and above</td>
<td>$30 per month</td>
</tr>
</tbody>
</table>

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. Students are encouraged to visit the Student Service Court on the lower level of the Bovee University Center to receive advice regarding financial options which could possibly prevent collection referral.

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>Tuition</td>
<td>$9,720.00</td>
<td>$22,590.00</td>
</tr>
<tr>
<td>Room and Board</td>
<td>7,667.00</td>
<td>7,667.00</td>
</tr>
<tr>
<td>Books and Supplies</td>
<td>1,000.00</td>
<td>1,000.00</td>
</tr>
<tr>
<td>Personal/Travel</td>
<td>1,050.00</td>
<td>1,050.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$19,437.00</td>
<td>$32,307.00</td>
</tr>
</tbody>
</table>

*Figures Based on 08/09 rates; 30 credits hours and a standard, on-campus residence hall with the unlimited meal plan.
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 I.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, 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 student is seeking the resident status. 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.

D. In its sole discretion, the Resident Status Appeal Committee shall have the right to request that the individual provide the Resident Status Appeal Committee such additional information and/or documentation as it deems appropriate, including meeting with the Resident Status Appeal Committee.

E. The burden of proof is on the individual to demonstrate with clear and convincing evidence that he or she is eligible for a change in resident status because he or she intends to be domiciled in Michigan and has, in fact, established domicile in Michigan.

F. After the individual has submitted all requested information, the Resident Status Appeal Committee will review the individual’s appeal. The individual will receive a written decision from the Resident Status Appeal Committee when the review is complete.

G. Once the Resident Status Appeal Committee issues its decision, there are no further appeals for the semester or term covered by the Application for Resident Status.

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 2008-2009 ranged from $7,668 to $8,818.

Apartments. Various contracts are available depending on the individual unit and number of bedrooms. The approximate monthly rate for students in 2008-2009 ranged from $556 to $609.

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: $50.00

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 and will be included on the next monthly billing statement. 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. Library fines can be paid on your CMU student account.
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 pay 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/cbptc/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

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commuter</td>
<td>175.00 / year</td>
</tr>
<tr>
<td>Resident</td>
<td>150.00 / year</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)

Transcript Fees
Official transcripts are free, however there is a $10.00 charge for priority (same day) service. Transcripts are available upon receiving a written, hand-signed request from the student. 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. 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, whichever is less. 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 if the balance remains unpaid. Graduating students with unpaid financial obligations may also have a hold placed on their diplomas.

Please be advised that CMU reserves the right to suspend campus ID privileges at any time due to a past due balance greater than $100 including, but not limited to, meal plan, computer lab, library, bookstore, and flex privileges. Any delinquencies from the Family Housing Apartments may result in the initiation of eviction procedures.

Refunds
Refunds are issued weekly when a credit balance exists on a university account. All potential refunds are applied to university obligations before a refund is issued to an individual. Refunds of less than $2.00 will not be issued unless the student requests it from the Receivable Accounting Office, but will be carried forward to offset future university charges.

Refunds are issued either by direct deposit to a personal bank account of the student’s choice or to a CMU Money Card distributed by Money Network. Students must make a selection for their preferred method on the CMU Student Portal under Refund Payment Option. If a selection is not made, the student will be defaulted to receive the CMU Money Card which will be mailed to their permanent mailing address.

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 upon Withdrawal 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 charges. Credits for the unused portion of tuition, special course fees, housing and other university charges resulting from a student’s withdrawal from the university are used to repay the financial aid sources in full prior to refunding the student. Withdrawing students who have received refunds for financial aid to cover non-institutional, educational costs may be required to repay financial aid sources.

(continued)
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.

Drop and Add Refunds
The Receivable Accounting Office will automatically process refunds/charges as a result of a change in class registration. Any credit resulting from a change in class registration will be applied to any outstanding university obligations before a refund is issued. No refunds are made for class withdrawals after the Phase II registration period (with the exception of select special fees) unless the student is completely withdrawing from the university or the class is dropped prior to its second scheduled meeting time in the Registrar’s Office or the Student Service Court.

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 will be refunded to a student who withdraws from the university.

| Percentage of Tuition and Fee Refund for Fall/Spring |
|-----------------|-----------------|-----------------|-----------------|
| Length of Session | Class Days Beginning with First Day of Class | Refund | Refund | Refund |
| 5 WK Days | 1-3 | 4-6 | 7-13 | 100% | 50% | 25% |
| 8 WK Days | 1-4 | 5-10 | 11-20 | 100% | 50% | 25% |
| 10 WK Days | 1-5 | 6-13 | 14-25 | 100% | 50% | 25% |
| 16 WK Days | 1-8 | 9-20 | 21-40 | 100% | 50% | 25% |

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.cmich.edu/ocbulletin/).

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.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 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.

All 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

Office of Scholarships and Financial Aid
Central Michigan University
Student Services Court
Mount Pleasant, MI 48859
989-774-3674
1-888-392-0007
FAX: 989-774-3634
E-MAIL: cmuosfa@cmich.edu

The Office of Scholarships and Financial Aid (OSFA) at Central Michigan University, in conjunction with the federal and state governments and private and civic organizations, offers a variety of scholarship, grant, loan, and employment opportunities to assist you in financing your education.

Approximately eighty percent of all CMU students receive some form of assistance from these sources. The purpose of financial aid is to ensure that the university continues to make it possible for students of all degrees of financial capacity, special talent, or high scholastic merit to attend CMU. Should you have any questions during the application process, please do not hesitate to contact us.

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.

The following general information is provided for prospective and continuing undergraduate students.

Financial Aid 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 and institutional grants and/or Federal Direct Loans) in a degree program. Students enrolled less than full-time but at least half-time (6 credits per semester) may have grant aid pro-rated.

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.

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/assistance/policies. 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.

(continued)
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 36 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. 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, you must submit a letter from your doctor that is written on the doctor’s professional letterhead supporting 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 State Of Michigan’s priority consideration date. 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 2009-2010, students must answer yes to at least one of the following questions:

1. Were you born before January 1, 1986?
2. At the beginning of the 2009-10 school year, will you 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 today, are you married?
4. Do you have children who receive more than half of their support from you between July 1, 2009 and June 30, 2010?
5. Do you have dependents (other than your children or spouse) who live with and receive more than half of their support from you, now and through June 30, 2010?
6. At any time since you turned age 13, were both your parents deceased, were you in foster care, or were you a dependent or ward of the court?
7. Are you a veteran of the U.S. armed forces?
8. Are you currently serving on active duty in the U.S. Armed Forces for purposes other than training?
9. Are you or were you an emancipated minor as determined by a court in your state of legal residence?
10. Are you or were you in legal guardianship as determined by a court in your state of legal residence?
11. At any time on or before July 1, 2008, did your high school or school district homeless liaison determine that you were an unaccompanied youth who was homeless?
12. At any time on or after July 1, 2008, did the director of an emergency shelter or transitional housing program funded by the U.S. Department of Housing and Urban Development determine that you were an unaccompanied youth who was homeless?
13. At any time on or after July 1, 2008, did the director of a runaway or homeless youth basic center or transitional living program determine that you were an unaccompanied youth who was homeless or were self-supporting and at risk of being homeless?

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, Academic Elite Honors and Outstanding High School Student 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 over commitments 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 will be issued for the balance. It is the student’s responsibility to verify the accuracy of billing charges, financial aid credits, and refund.

Refunds are usually available to on-time filers by the first week of classes. Late filers should plan to have sufficient funds for meeting expenses until a refund is 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 participate in an online exit interview 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: 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. Crippa Endowed Centralis Scholarship

Through her estate, Doris L. Moulton Crippa established an endowed Centralis Scholarship. Doris and John Crippa 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 a 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.
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

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.

Students may receive two renewable merit scholarships. Students who are selected for more than two renewable scholarships may choose the awards of highest value.

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 disbursed equally to the fall and spring semester.
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 have 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

A scholarship of $4000 per academic year is open to high school seniors who rank first or second in their graduating class. 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 Elite Scholarship

A scholarship of $3000 per academic year will be awarded to high school seniors with both a minimum 3.6 GPA and an ACT score of at least 25 — or to students with both a minimum 3.75 GPA and ACT score of at least 20. 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 or the Outstanding High School Scholarship replaces the Academic Honors Elite Scholarship.

Academic Honors Scholarship

A scholarship for $2,500 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 high schools or transfer students with a grade point average of 3.5 and an Associate Degree from a 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 cancel the scholarship for the remainder of CMU attendance. Either of the Centralis Scholarships replaces the Academic Honors Scholarship.

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 will receive a $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.

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.

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 co-curricular 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 co-curricular 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 co-curricular 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 Grants at CMU, 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 3.0 and an ACT composite score of at least 20 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 if a 2.50 cumulative GPA, non-Michigan residency and full-time continuous enrollment are maintained 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 is 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 of December 1st 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 need, 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 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 a first degree undergraduate student in an approved postsecondary institution and must show financial need as determined by Federal Methodology, a formula applied to all applicants. Students who first receive a Pell Grant on or after July 1, 2008 may not receive a Pell Grant for more than 18 semesters.

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 and eligible non-residents; (2) Pell Grant recipient during same award year; (3) at least half-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 1/1/06; (7) second-year students must have graduated from high school after 1/1/05. 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 (award is pro-rated for less than full-time attendance); $1300 for second-year students (award is pro-rated for less than full-time attendance).

National SMART Grant

Requirements: (1) U.S. citizen or eligible non-citizen; (2) Pell Grant recipient during same award year; (3) at least half-time enrollment for each pay period; (4) enrolled in a degree program; (5) one award per student per grade level; (6) junior grade level is 56-85 credits; senior grade level is 86-124 credits of a four-year 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.

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 students from low-income families.

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 at CMU:

- 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 accepted into the undergraduate Teacher Education program or into the College of Graduate Studies Master of Arts in Special Education program and have a signed elementary or secondary education major or minor in a high-need subject
- Have a cumulative GPA of at least 3.25 and maintain that GPA throughout your academic program (or score above the 75th percentile on a national standardized college admissions test)
- Complete TEACH Grant entrance, subsequent and exit counseling at http://mappingyourfuture.org/oslc/counseling/School-Pages.cfm?SchoolPageID=5243&SchoolID=2005613
- Sign a TEACH Grant Agreement to Serve and Promise to Pay each year at www.teach-ats.ed.gov
- Undergraduate students are eligible only if they are pursuing their first undergraduate degree. Students pursuing a second undergraduate degree, teachers working on teacher certification and graduate students who have a “conditional admission” status are NOT eligible for the TEACH Grant. Graduate students are eligible only if they are pursuing a Master of Arts in Special Education degree.
- NOTE: CMU has determined the following major is NOT eligible for a TEACH Grant because students will be unable to fulfill the teaching requirements:
  - B.S. in Education - Elementary Provisional Certification students who do not have a high-need field major or minor
  - Sign a TEACH Grant Agreement to Serve (see below for more information on the TEACH Grant Agreement to Serve).

To initiate application for the TEACH Grant, students must contact the Center for Student Services, College of Education and Human Services, EHS 421, Central Michigan University (989) 774-3309.

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/tea.doc.

Schools Serving Low-Income Students
Schools serving low-income students include any elementary or secondary school that is listed in the Department of Education’s Annual Directory of Designated Low-Income Schools for Teacher Cancellation Benefits at https://www.tcli.ed.gov/CBSWebApp/tcli/TCLIPubSchoolSearch.jsp.

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. Undergraduate students may borrow up to $5,500 annually. $11,000 aggregate for grades 1 & 2; total aggregate maximum is $27,500. 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. Deferment 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 (continued)
Scholarships and Financial Aid

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>
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<tr>
<td>5,000</td>
<td>160.00</td>
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<tr>
<td>6,000</td>
<td>192.00</td>
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<tr>
<td>7,000</td>
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</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 a student by the federal government and applied directly to the student’s account. 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, and $5,500 for the junior and senior years of undergraduate study, depending on financial need. The subsidized loan aggregate maximum for undergraduate study is $23,000. Application is usually made for one semester or an academic year (9 months), with summer school requiring a separate CMU Summer Application.

For loans beginning July 1, 2009, the annual fixed interest rate is 5.6%. There is a 1.5 percent origination fee deducted from the loan amount.

Six months after ceasing to be enrolled at least half-time, 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 Loan or who do not qualify for the full amount. The student is responsible for the interest that accrues while he/she is in school. Dependent students who demonstrate financial need for a subsidized loan based on grade level may borrow up to $2000 in an unsubsidized loan, not to exceed the cost of attendance. Independent students may borrow the Federal Direct Subsidized Loan limits as well as an additional Federal Direct Unsubsidized Loan up to $6,000 per year for freshmen and sophomores and up to $7,000 per year for other independent undergraduates, not to exceed the cost of attendance. The interest rate that borrowers pay while in school is fixed at 6.8%. There is an origination fee of 1.5 percent.

The aggregate maximum for undergraduate study is $31,000, which may be a combination of subsidized and unsubsidized loans. The aggregate maximum for an independent undergraduate student is $57,500.

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. 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.

Parents may choose to defer payments on a PLUS loan until six months after the date the student ceases to be enrolled at least half time and pay accruing interest monthly or quarterly, or allow interest to be capitalized quarterly. Interest begins to accumulate at the time the first disbursement is made. Parents may choose to repay both principal and interest while the student is in school or take advantage of deferring payments.

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 are contacted electronically to complete on-line exit counseling. Exit counseling materials will be mailed to students who fail to complete on-line exit counseling within 30 days of notification. 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

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)/NC Credit Grades

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.

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.

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

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

Any person with an impairment such as an amputation, a cardiac condition, speech problems, deafness, blindness, orthopedic involvements, or epilepsy, can make application for service through Michigan Rehabilitation Services.

All services provided are individually planned to meet the established need and could include, for example: tuition, fees, books, prosthetic devices, maintenance, or other services that would be required for the completion of a rehabilitative program.

A student who feels that vocational rehabilitation services are needed may make inquiry and application for assistance by contacting the office of Michigan Rehabilitation Services in the student's home area.

Army ROTC Scholarships

ROTC offers a variety of scholarships to the students of CMU. Scholarships differ primarily in the length of time in which the recipient receives the financial assistance. The Army ROTC scholarship program includes a financial benefit package for a period of four, three, and two years. Scholarships are awarded on a competitive basis to the most outstanding applicants, each of whom must: be of good moral character, be a U.S. citizen, be medically qualified, be not more than 31 years of age at graduation, pass the Army Physical Fitness Test (APFT), have no civil convictions (other than minor traffic violations), have a GPA of at least 2.5 (4.0 scale), and possess scholar, athlete, and leader attributes.

Each scholarship pays for college tuition, laboratory fees, on campus educational fees, and a standard amount for the purchase of textbooks, classroom supplies, and equipment. Army ROTC Scholarship winners also receive a tax–free subsistence allowance of $300 - $500 per month for each school year that the scholarship is in effect.

| Average Annual ROTC Scholarship |
|---------------------------------
| Tuition | Student’s assigned tuition rate x 32 credits |
| Books, Supplies | 900.00 |
| Subsistence | 3,000.00-5,000.00 |
| Additional ROTC scholarship information may be obtained by contacting personnel of the Military Science Department at 989-774-7440/3049. |

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.

Bureau of Indian Affairs

Information regarding grants for qualified students of at least one-quarter American Indian descent is available through the U.S. Department of the Interior, Bureau of Indian Affairs at 202-208-3710.

Indian Tuition Waiver

A state resident North American Indian who is not less than 25% quantum blood Indian is eligible for free tuition at CMU. Applications are available from the Inter-Tribal Council of Michigan, telephone 800-562-4957. The student must be enrolled in a degree-granting program.

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 friends of Harold and Iris Abel, who served as president and first lady of CMU between 1975 and 1985.

Roger Allen Scholarship

Established by Roger and Margaret Allen, friends of education and CMU.

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.
American Mitsuba Corporation Endowed Scholarship
Established in 2009 by American Mitsuba Corporation and its affiliate CME, LLC. Income from the endowment will support a renewable award for a student majoring in the electrical or mechanical engineering program in the College of Science and Technology with a minimum GPA of 3.0. Preference will be given to qualified CME and related company associates and their immediate family members.

Arthur Andersen Endowed Fund in Accounting
Updated in 2006, income from the endowment will support a fund for two areas in the School 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 who has a minimum GPA of 3.0.

Charles L. and Mary Fisher Anschpach Scholarship
Established in 1994 through a conversion of a loan fund in memory of Central’s distinguished fifth president and in memory of Mrs. Anschpach who served the university for 20 years with distinction and grace as the wife of President Anschpach (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. Brown, 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 must 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 1986 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 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 student enrolled in the College of Business Administration and majoring in Accounting. Eligible candidates must be intending to major (freshman) or majoring in accounting and demonstrate financial need. Recipient must maintain a 3.0 GPA overall; 3.2 in business courses freshman year and 3.2 GPA in Accounting courses in subsequent years.

The Daniel L. Bookey Endowed Award
Established in 2008 by friends and colleagues in honor of Daniel L. Bookey, emeritus CMU athletics equipment manager. Income from the endowment will support an award for a student equipment manager in their junior year or higher who best epitomizes the character traits of Dan Bookey: selflessness, dedication, integrity, and love of the game. Student must maintain 2.75 or higher 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 the 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 2007 by Pat Loers in memory of her mother, Laurel Wood Brice. Income from this endowment will support a scholarship for a full-time junior or senior 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 or Isabella 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 senior student enrolled in the College of Humanities and Social and Behavioral Sciences, majoring in English with a GPA of 3.5 or above. Recipient will provide documented work with minority groups. Women, persons of color, and persons with disabilities are encouraged to apply.

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.

Kathryn L. Brown Award
Established in 1998 by friends and family in memory of Kathryn (Kate) L. Brown, a junior in the Hospitality Services Administration program who died while doing her internship. Recipient will be a full-time student majoring in hospitality services administration with at least one full semester remaining before graduation with a minimum GPA of 2.5.

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 awarded to a student who plans to pursue a career in the geographic information sciences. The recipient must be enrolled in the College of Science and Technology, with a signed geography major, a concentration in geographic information sciences, and have a minimum GPA of 3.25 in geography courses and a 3.25 GPA overall.

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 Central’s 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 School 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 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.

CHEMICAL FINANCIAL CORPORATION ENDOWED SCHOLARSHIP
Established in 2009 by Chemical Bank. 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. Preference will be given to students from Clare or Midland Counties, if no students from these counties meet the criteria, then any student from Michigan meeting the criteria may apply.

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.

COCHRAN/BURKE SCHOLARSHIP FOR EXCELLENCE IN MIDDLE LEVEL EDUCATION
Established in 2005 by Dr. Jennifer Cochran and Dr. Peggy Burke, CMU faculty. 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.

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.

JEANNE F. COLLINS SCHOLARSHIP
Established in 1986 by Robert John Collins in memory of his wife, Jeannie 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 meet eligibility requirements specified by Citizens Insurance Company of America.

CON-WAY FREIGHT INC. ENDEOURED LOGISTICS HONORS AWARD
Established in 2008 by John Labrie ’89 and Con-way Freight Inc. The renewable award will support an honors student enrolled in the College of Business Administration’s logistics management program with a minimum GPA of 3.25.

FRED AND JOYCE COOK ENDEOURED SCHOLARSHIP
Established in 2005 by Fred ’69 and Joyce ’92 Cook. Income from the endowment will support a renewable scholarship for an incoming freshman. Preference will be given to a student working toward the advancement of minorities and who can demonstrate financial need.

WELLS COOK ENDEOURED 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 1996 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 be used to support a renewable scholarship for a student who is a junior with an expressed interest in teacher education, with either a major in physical education and an academic minor, or an academic major with a physical education or coaching minor. Recipients must have a GPA equal to the NCAA standard, currently 3.3. Preference will be given to student athletes or those working with an athletic team.

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 study abroad student enrolled in the College of Business Administration, majoring in accounting with a minimum GPA of 3.0 and demonstrating financial need. Preference will be given to students from Eisenhower High School in Shelby Township, MI.

Claudia 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).

Lee and Lori Dow Endowed Scholarship
Established in 2009 by Lee ’76 and Lori Dow. Income from this endowment will support a renewable award for a junior enrolled in the College of Business Administration demonstrating financial need with a minimum GPA of 3.5.

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.

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 junior 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. The recipient of the renewable scholarship will be an incoming freshman from a Michigan Class C or D high school who intends to study physical education with the possibility of being an athletic coach.

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.

Howard Evans Study Abroad Scholarship
Established in 2008 by Dr. Howard V. Evans and Dr. Charlotte B. Evans in honor of the dedication and support that Dr. Howard V. Evans has bestowed on the European history department. Income from this endowment will support an award for a junior or senior studying abroad with a minimum GPA of 3.0. Please contact the College of Humanities and Social and Behavioral Sciences for more information.

Fran and Jim Falender Endowed Scholarship in Chemistry
Established in 2006 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.

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 Bernice F. Finch Scholarship
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.

Ronald W. and Bernice 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.
Scholarships and Financial Aid

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 housemother, 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 Furname 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.

Michael and Glenda Glenn Sales Institute Scholarship
Established in 2008 by Michael ’73 and Glenda Glenn. Income from the endowment will support a renewable award for a student with a major or minor in the College of Business Administration majoring in business. The student must have a minimum GPA of 3.0 and be a Michigan resident.

Goodwin Family Endowment for Study Abroad and International Experiences
Established in 2008 by Keith ’74, ’06 and Janice Goodwin to support international learning for students in the College of Business Administration. Income from the endowment will support students who wish to study and/or intern abroad, providing funding for travel, room and board, program fees and other expenses associated with the international experience. Awards based on GPA, required essay, and faculty letter of recommendation.

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 Scholarship
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 Deput 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 1967, 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, have a minimum 3.25 GPA and who have completed 56 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. Robinson 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 council.

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, 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 students who have demonstrated exemplary leadership skills in college and/or high school, and maintain a high level of involvement with extra-curricular activities at CMU. 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. Kohrmann Scholarship
Established in 2005 by Robert E. and Cordelia B. Kohrmann. 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. Kristoffersen Award
Established as a loan fund by family and friends in 1974 and converted to an endowment in 1990 to commemorate Dr. Kristoffersen, former senior member of the first faculty of the Department of Education, for an award or appropriate equipment to geology students based on merit or achievement.

Mabel and DeWayne Kyser Scholarship
Established in 2004 by Nicholas 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.
Lichtenfelt Scholarship  
Converted in 1988 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 Lichte Memorial Scholarship Fund  
Established in 2002 by friends and family of Heather Lichte, 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 excellence in 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. Lindeley Achievement Award  
Established by family and friends of Damon P. Lindeley, 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 Endowment  
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.

Joanne Sue Manshum Scholarship  
Established in 2008 by the estate of Joanne Sue Manshum ’60. Income from this endowment will be used to support a renewable scholarship for a student majoring in teacher education. Preference will be given to students in Elementary Education with a minimum GPA of 3.0.

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. McCarley, 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.

Jane McNamara Physical Education Award
Established in 2008 by the estate of Jane McNamara, emerita faculty. Income from this endowment will be used to support a renewable scholarship for a student admitted to the physical education and sport program in The Herbert H. and Grace A. Dow College of Health Professions. Recipient must have a minimum GPA of 3.0.

Mary Jane Merrill Scholarship
Established in 1968 by parents Elwyn E. Merrill, ’44, and Grace Bonnell Merrill, ’41, as a tribute to their daughter and her grandfather. 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.

Michigan 22nd and Beyond ROTC Endowment Fund
Established in 2008 by Army ROTC alumni and friends in honor of the dedication and support of the Michigan 22nd and retired secretary, Beverly Denise Gallagher. Income from this endowment will support a renewable scholarship for a student enrolled in the Department of Military Science Army ROTC with a minimum GPA of 2.5. Endowment may also be used for student program activities needs as deemed appropriate by the chair of the Military Science Department.

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 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 members 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 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 incoming freshman with a GPA of 3.0 or higher. Recipient will be a United States citizen, resident of Michigan, and 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-Bendle 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-Bendle 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 Matty in honor of Dr. Wayne E. Moore, geology professor emeritus, and his spouse Ethel Moore. Income from the endowment will support an incoming freshman who declares an intent to major in geology. Award is renewable for a second year if the student maintains good academic standing and remains committed to geology 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 geology 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.

Ronald and Luellen Newmann Award
Established in 2008 by Ronald and Luellen Newmann ’92. Income from this endowment will support a renewable award for a full-time student demonstrating financial need and from the Northern part of the Lower Peninsula.

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.

Suzanne Nichols Endowed Scholarship in Journalism
Established in 2009 by Margaret A. (Yatoma) Bogle ’79 in honor of Suzanne Nichols ’57, emeritus journalism professor. Income from the endowment will support a renewable award for freshman or higher journalism major with a minimum 3.0 GPA. Recipient must have previously worked on a high school sponsored publication or broadcast.

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 33 years. Annual expendable 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 Letting-O’Connell Family Endowed Scholarship
Established in 2007 by Dr. John F. O’Connell ’83 in memory of Dr. Barbara Letting-O’Connell. Income from the endowment will support a renewable award for a junior or senior with a minimum GPA of 3.25. First preference will be given to students majoring in chemistry, then students majoring in physics or math. Preference will also be given to students desiring to attend graduate school.

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.

Off-Campus Programs Endowed Scholarship
It is the intent of the donors that the income from this gift be used to support scholarships for students in Off-Campus Programs. The recipients of this scholarship shall have a 3.0 overall GPA on a 4 point scale. Current unemployed off-campus students and single parent off-campus students are encouraged to apply.

Tom Olson Scholarship Fund
Established in 1986 by friends, including Thomas J. Olson ’58, ’68, in honor of William F. Brown, former Mt. Pleasant resident. Income from the endowment will support a graduating Mt. Pleasant High School or Sacred Heart Academy senior who will be a freshman at CMU.

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 Pomererenk Women’s Basketball Team Player Award
Established in 2002 by Dee Pomererenk ‘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.

Robert C. Prevette and Teresa H. Powell-Prevette Endowed Scholarship
Established in 2009 by Robert C. ‘71 and Teresa H. Powell-Prevette. Income from this endowment will support a renewable award for a full-time student demonstrating financial need that is a single parent with a minimum GPA of 2.7. Bob, a graduate of the CBA, is president of Legacy Trust, a special purpose bank with offices in Grand Rapids and Holland, Michigan. Teresa teaches kindergarten and first grade at Holy Name of Jesus School in Grand Rapids. Bob and Teresa have actively supported CMU through participation on the Development Board and many campus events.

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 an education major with preference extended to students from the Upper Peninsula in Chippewa, Luce or Mackinaw counties with a minimum GPA of 3.0.

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 28. 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.

Kenneth and Jane Rogers Endowed Scholarship
Established in 2007 by Kenneth ‘96, ’06 and Barbara Rogers. Income from this endowment will support a renewable scholarship for a junior or higher enrolled in Off Campus Programs pursuing a bachelor of science degree with a minimum GPA of 3.0. Recipient will be a single parent who is a resident of Southeast Michigan.

Joyce Rohlfis Scholarship
Established by Mr. and Mrs. William E. Rohlfis and Glen Rohlfis 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 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 cinematic 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 cinematic 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 endowment 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 student's 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 endowment 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 the 3.5 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 endowment 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 endowment 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 endowment 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 endowment 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 Richard and Karen St. Andre, the income from the endowment will support a non-renewable award for a sophomore student with a signed major in the Mathematics Department (currently mathematics, mathematics education and statistics). The recipient must be a Michigan resident and show good potential for being successful in their major.

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 Szymbczak Endowed Scholarship
Established in 2007 by Mark ‘91 and Michelle Szymbczak ‘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 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 their 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.

Voelser/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.

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 College of Business Administration with a minimum 3.0 GPA. The recipient must be a Michigan resident and demonstrate financial need.

Sydney and Mary Walston Award  
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.
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 undergraduates 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 demonstrable financial need by university standards and solid academic standing.

Michael Waske Scholarship
Established by Mrs. Michael Waske (Dorothy Wright, ’51) in memory of her 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 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 Mary Helen, 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

Jason Bentley, Program Coordinator
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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). 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 section of FYE 101 connects students with a peer mentor who assist with academic and experiential learning exercises in and outside of class. Previous FYE students 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. Research has shown that FYE students are more successful in other academic classes, are more likely to continue their college education, have 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.

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.
The Honors Program
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.

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.

Honors Program Protocol Requirements

All Honors students including the Centralis Scholarship recipients must complete each of the following Honors protocol components if they desire to graduate with Honors Program distinction. Completion of the Honors protocol will result in “Honors Program Graduate” being noted on the student’s permanent transcript. The Honors protocol requirements are as follows:

1. Complete at least 22 credits of Honors coursework before graduation from CMU, (in addition to HON 499), of which one credit must be HON 100 and 9 credits must be taken at the 300 level or above. Honors coursework is defined as HON classes, H-designated classes, and Honors contracts successfully completed. Honors Contracts may be used to fulfill a maximum of 6 of these 22 credits, with the approval of the Honors Director.

2. To enhance exposure to cultural diversity (the study of a cultural aspect substantially different than one’s own either in or outside the United States for college credit), complete a minimum of 6-8 credit hours of the following at the college level:
   - Foreign language courses
   - American Sign Language courses
   - Study Abroad Courses for college credit
   - Honors Cultural Diversity courses approved by the Honors Council

3. Participate in a university or community volunteer service project, completing 120 hours of volunteer service during one’s four years at CMU.

4. Complete a Senior Honors project and enroll in HON 499. The senior project involves research or a creative endeavor conducted with a faculty advisor from the student’s major or minor discipline. Before beginning the senior project, students must complete a senior project proposal form outlining the goals of the project and have it signed by the faculty advisor. Students are encouraged to begin planning for the senior project during their junior or third year of study at CMU. The senior project proposal is due two full semesters before the student plans to graduate (excluding summer semesters). The completed senior project and all other protocol requirements are due at least one full semester before the student plans to graduate. Students are expected to present their project at the Student Research and Creative Endeavors Exhibition the spring semester of their senior year.

   NOTE: A student must maintain a cumulative CMU grade point average of 3.25 to remain active in and graduate from the Honors Program. Students are required to earn a grade of at least “B-” in all H, HON, or Honors Contract courses. An Honors course may not be counted in more than one of the four areas of the Protocol. For example, if a student takes ASL 101H the student must decide if he/she would like to count it in area one as an Honors course or in area two as a foreign language.

Academic Honesty Statement

As a member of the Honors Program at Central Michigan University, you are participating in a community of scholarship based on the values of honesty, respect, fairness, and responsibility. You are expected to adhere to the CMU policies on academic integrity stipulated in the CMU Bulletin. In all of your academic work, you must adhere to the highest standards of integrity. You will not cheat, plagiarize, or receive or provide inappropriate assistance on any course activity for which a grade is awarded. Membership in the Honors Program is based on academic performance and all forms of cheating call into question the validity of a student’s grades. Participation in the CMU Honors Program is a privilege, and failure to adhere to standards of academic integrity may result in dismissal from the Honors 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

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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, visit potential graduate schools, 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, theaters, 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 COM 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)
- COM 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 American 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 AAMCAMS (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 compliment 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)
BIO 110 (4)
SOC 100 (3)
PSY 100 (3)
COM 101 (3)
Math Competency Course (3)
University Program course

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

Advisors: 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

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<td>H*</td>
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*(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 provide 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 also 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 from Academic Assistance Programs in the Academic Advising and Assistance 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 assistant director of Academic Advising and Assistance, 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>
</tr>
<tr>
<td>36-45</td>
<td>1.70-1.99</td>
</tr>
<tr>
<td>46-58</td>
<td>1.80-1.99</td>
</tr>
<tr>
<td>59-71</td>
<td>1.85-1.99</td>
</tr>
<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 Advising and Assistance office. A written appeal, a personal interview, and payment of the Rematriculation Application Fee are required, following the procedures outlined under Rematriculation in the Admissions section of this 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 this 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 (2-D Design Portfolio) - ART 115
- Art (History) - ART 185;
- Biology - BIO 110 or BIO 101 (prior to 2008)
- Calculus AB - MTH 132;
- Calculus BC - MTH 132 and MTH 133;
- Calculus BC - Subscore AB - MTH 132
- Computer Science A - CPS 180;
- Computer Science AB - CPS 181;
- English Language and Composition OR English Composition and Literature - ENG 101;
- Environmental Science - ENV 101
- Government and Politics (U.S.) - PSC 105;
- Government and Politics (Comparative) - PSC 242;
- Human Geography - GEO 121;
- Macroeconomics - ECO 204 or ECO 201 (prior to 2008); score of four or five.
- Microeconomics - ECO 203 or ECO 202 (prior to 2008); score of four or five.
- 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 (World) HST credit (score of three); HST Credit 6 hours (score of four or five)
- History (U.S.): HST 111 or 112 (score of three), HST 111 and 112 (score of four or five);
- History (European): HST 101 or 102 (score of three), HST 101 and 102 (score of four or five).

Students will receive credit for the Chemistry examinations as follows:
- CHM 131 (score of three or four),
- CHM 131 and 132 (score of 5).

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 - PSC 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 or BIO 110;
- 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;
- Pre-Calculus Mathematics - MTH 130
- 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. Contact Undergraduate Academic Services for an updated list of cutoff scores on individual exams.

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 Program requirements.

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.

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.

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.
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 College 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.

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-, 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 989-774-7126.

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 its 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 interest and/or need 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, must 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.

Honors for Recomputations
Students who have had a recomputation of grade point average must meet the following criteria to be eligible for graduation with Honors for Recomputations:
1. The student must complete 45 hours of residence, of which 33 hours are letter graded.
2. The student must meet the following criteria to be eligible for graduation with Honors for Recomputations:
   a. At the beginning of his/her final semester, the student must complete 45 hours of residence, of which 33 hours are letter graded, and a cumulative point average under 2.00 (academic probation).
   b. The student must have completed 45 hours of residence, of which 33 hours are letter graded, and a cumulative point average as indicated in the Graduation with Honors Table.
   c. Only hours completed after the recomputation are eligible for this requirement.

Undergraduate Repeat Course Policy
Undergraduate students may repeat 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 last 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 form 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, 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 for 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.

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.

(continued)
Academic Policies and Procedures

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 Training 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.

Correspondence credit, Advanced Placement credit, CLEP credit, and hours earned by Credit by Examination may not be applied toward any of these requirements.

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 semester, 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.

Point Average
3.90-4.00 SummaCum Laude
3.75-3.89 Magna Cum Laude
3.50-3.74 Cum Laude

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.

Honors for Recomputations
Students who have had a recomputation of grade point average must meet the following criteria to be eligible for graduation with honors:

At the beginning of his/her final semester must have completed 45 hours of residence, of which 33 hours are letter graded, and a cumulative point average as indicated in the Graduation with Honors table. Only hours completed after the recomputation are eligible for this requirement.
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. 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 submit an application for admission to the teacher education program. 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. Admission to teacher education occurs twice a year, once in September and once in February, and is based upon the student’s completion of all admission requirements.

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.)

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.
2. Obtain a statement from an appropriate school official verifying the candidate has three years of successful teaching experience whether he or she satisfies requirements for a Professional Education Certificate.
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.

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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 99
- University Program, page 121
- Competency Requirements, page 126
- Requirements for Graduation, page 94
- Undergraduate Majors and Minors, page 128

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 96). 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 128.

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 121-127.

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 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)
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 560 - Digital Computer Design 3(3-0)
CPS 575 - 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
FNS 361 - Experimental Foods 3(2-2)
FNS 370 - Nutrition 3(3-0)
FNS 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
AMD 252 - Dress and Culture 3(3-0)
HDF 100 - Human Growth and Development: Life Span 3(3-0)
HDF 212 - The Family in Cultural Perspective 3(3-0)
HDF 306 - Human Growth and Development: Adolescence 3(3-0)
HDF 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 121-127.

**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 20-30 hours and 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 121-127.

**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 121-127.

**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 121-127.

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 121-127.

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 121-127.

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:
- 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(6-0)

Bachelor of Science (B.S.)

Plan A

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 I-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:
- 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 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

Admissions

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
- FNS 361 - Experimental Foods 3(2-2)
- FNS 370 - Nutrition 3(3-0)
- FNS 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 (PSO)
    - 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
- AMD 252 - Dress and Culture 3(3-0)
- HDF 100 - Human Growth and Development: Lifespan 3(3-0)
- HDF 212 - The Family in Cultural Perspective 3(3-0)
- HDF 213/WST 213 - Introduction to Human Sexuality 3(3-0)
- HDF 306 - Human Growth and Development: Adolescence 3(3-0)
- HDF 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.

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 121-127.

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 Interpretive 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)
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
FNS 361 - Experimental Foods 3(2-2)
FNS 370 - Nutrition 3(3-0)
FNS 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
AMD 252 - Dress and Culture 3(3-0)
HDF 100 - Human Growth and Development: Lifespan 3(3-0)
HDF 212 - The Family in Cultural Perspective 3(3-0)
HDF 213/WST 213 - Introduction to Human Sexuality 3(3-0)
HDF 306 - Human Growth and Development: Adolescence 3(3-0)
HDF 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
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
Law and Economics
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 & Termination Standards**
For information on Admission Requirements to Professional Business Studies, refer to the College of Business Administration section of this bulletin on page 154.

**General Education Requirements (30-42 hours)**
See General Education Requirements on page 121-127.

**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  
Hospitality Services Administration Major: Hospitality Services Concentration  
Human Resources Management Major  
Information Systems Major  
International Business Major  
Law and Economics Major  
Logistics Management 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.
Degree Requirements

**Bachelor of Science in Electrical Engineering (B.S.E.E.)**

**General Education Requirements (30-42 hours)**
See General Education Requirements on page 121-127.

**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 prepares graduates with knowledge, problem solving ability, and hands-on skills to enter careers in the design, installation, testing, evaluation, technical sales, or maintenance of mechanical systems. This degree provides students with an opportunity to pursue a major in 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 (24-29 hours), and
3. Engineering Technology Major (51 hours) which includes:
   a. Broad-based Engineering Technology Core (27 hours),
   b. A major in mechanical or manufacturing engineering technology (18 hours), and
   c. Technical electives (6 hours).

General Education Requirements (30-42 hours)
See General Education Requirements on page 121-127.

Basic Science and Mathematics Requirements (24-29 hours)
All students pursuing a major in manufacturing or mechanical engineering technology must complete the following basic science and mathematics requirements.

Core Courses I (15 hours)
CHM 131 · Introduction to Chemistry I 4(3-3)
CPS 180 · Principles of Computer Programming 3(3-0)
MTH 130 · Pre-Calculus Mathematics 4(4-0)
MTH 132 · Calculus I 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 (3-4 hours)
Select one of the following:
MTH 133 · Calculus II 4(4-0)
STA 282 · Introduction to Statistics 3(3-0)

Core Courses III (5 hours)
Select one of the following options:

Option 1
PHY 131 · College Physics I 4(4-0)
PHY 171 · College Physics Laboratory I 1(0-2)

Option 2
PHY 146 · University Physics I 4(4-0)
PHY 176 · University Physics Laboratory I 1(0-2)

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 manufacturing 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 121-127.

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 121-127.

**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 391 - 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 8(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)**
  - If using this category, you must select both of the following:
    - 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 344 - Science Methods in Elementary Education 3(3-0)
- EDU 361/MLE 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)
- HDF 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 (HDF)
- Dance (PES)
- English as a Second Language (ENG)
- 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.
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 121-127

**Degree Requirement (3 hours)**

HDF 100 - Human Growth and Development: Lifespan 3(3-0)

*Note:* HDF 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.
Bachelor of Science in Education (B.S. in Ed.)
Elementary Provisional Certification with
Emotional or Cognitive Impairment Endorsement (K-12)

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 121-127.

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 456 - 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)

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.

Note: EDU 458 is required for 6 credit hours on this degree. Read carefully the section on Standards Leading to Teacher 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 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 121-127.

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.

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.
Degree Requirements

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 121-127.

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:
HDF 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.

Minimum Totals for Graduation: 124 hours
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 298 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 125 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 Sub-committee 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 courses 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: AMD, FNS, IND, HDF), 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 121 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 126) 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)
ART 185 - Introduction to Western Art, Part I 3(3-0)
ART 285 - Introduction to Western Art, Part II 3(3-0)
BAA 288 - History and Appreciation of the Cinema 3(2-2)
BAA 290 - French Film and Other Media 3(3-0)
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)
ENG 323 - Fantasy and Science Fiction 3(3-0)
ENG 330 - Mythological Backgrounds of Western Literature 3(3-0)
HON 130 - Western Cultural and Intellectual Traditions 3(6 Spec)
HST 101 - The Development of Western Civilization 3(3-0)
HST 102 - The Development of Western Civilization 3(3-0)
HST 110 - The American Experience 3(3-0)
HST 200 - The Medieval Civilization 3(3-0)
HST 238 - Ancient Greece and Rome 3(3-0)
HST 326/WST 328 - Women in America 3(3-0)
HST 341 - Renaissance and Reformation 3(3-0)
HST 342 - The Culture of Renaissance Italy (Study Abroad) 3(3 Spec)
HUM 101 - Introduction to the Humanities 3(3-0)
MTH 200 - Mathematics: A Cultural Approach 3(3-0)
PHL 100 - Introduction to Philosophy 3(3-0)
PHL 118 - Moral Problems 3(3-0)
PHL 218 - Ethical Theory 3(3-0)
PHL 230 - Philosophy of Religion 3(3-0)
PSC 275 - Great Political Thinkers 3(3-0)
PSC 371 - American Political Thought 3(3-0)
PSC 378 - Modern Democratic Theory 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)
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)
REL 315 - Judaism 3(3-0)
WST 326/HST 328 - Women in America 3(3-0)

**Subgroup B. The Arts**
(At least 3 semester hours)
ART 126 - Introduction to the Visual Arts 3(3-0)
ART 319 - Art Criticism 3(3-0)
BAA 300 - African and African American Film 3(3-0)
ENG 134 - Introduction to Literature 3(3-0)
ENG 326 - The Literary Dimensions of Film 3(2-2)
ENG 334 - Literary and Cultural Theory 3(3-0)
HON 130 - Western Cultural and Intellectual Traditions 3(6 Spec)
MUS 110 - Music in Society 3(3-0)
MUS 114 - Listening Experience 3(3-0)
MUS 206 - Understanding Musical Composition 3(3-0)
MUS 213 - Jazz: An American Art Form 3(3-0)
MUS 313 - Music of the World 3(3-0)
TAI 170 - Fundamentals of Interpretative Reading 3(3-0)
TAI 175 - Appreciation of the Theatre 3(3-0)

Note: A student must complete both semesters of HON 130 for credit in both IA and IB.

**Group II. Natural Sciences**
(At least 6 semester hours)

**Subgroup A. Descriptive Sciences**
(At least 3 semester hours)
ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
ANT 173 - Laboratory in Physical Anthropology 1(0-2)
AST 111 - Astronomy 3(3-0)
AST 112 - Introduction to Astronomical Observations 1(0-2)
BIO 101 - General Biology 3(2-2)
BIO 110 - Concepts of Biology 4(3-3)
BIO 151 - Human Biology 3(3-0)
BIO 240 - Conservation of Natural Resources 3(3-0)
CHM 111 - The Interaction of Chemistry and Society 3(3-0)
FNS 370 - Nutrition 3(3-0)
GEL 100 - Introduction to Earth Systems 3(2-2)
GEL 101 - Physical Geology 3(3-0)
GEL 102 - Physical Geology Laboratory 1(0-2)
GEL 105 - Dangerous Planet 3(3-0)
GEL 205/GEO 205 - Oceanography 3(3-0)
GEL 230 - Prehistoric Life 3(3-0)
GEL 301 - Geology and Geoengineering 3(3-0)
GEO 105 - Physical Geography 3(2-2)
GEO 201 - Weather and Climate 4(4-0)
GEO 205/GEL 205 - Oceanography 3(3-0)
HON 140 - Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)
HSC 211 - Human Anatomy and Physiology 3(3-0)

**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.

BIO 105 - Introductory Quantitative Biology 3(2-2)
CHM 101 - Armchair Chemistry 3(2-2)
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 161 - Principles of Chemistry 5(4-4)
CPS 180 - Principles of Computer Programming 3(3-0)
GEL 130 - Earth Processes 3(2-2)
HON 140 - Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)
MET 240 - Meteorology 3(2-2)
MTH 132 - Calculus I 4(4-0)
MTH 203 - Mathematics: A Modeling Approach 3(3-0)
PHL 140 - Introduction to Logic 3(3-0)
PHS 101 - Survey of Physical Science 3(3-0)
PHS 151 - Introductory Physical Science I 3(2-2)
PHS 371 - Musical Acoustics 3(2-2)
PHY 100 - Conceptual Physics 3(3-0)
PHY 110 - Physics of Sports 3(3-0)
PHY 127 - Table Top Physics 1(0-2)
PHY 130 - College Physics I 4(4-0)
PHY 145 - University Physics I 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)
PHY 175 - University Physics Laboratory I 1(0-2)

Note: Courses satisfying the Group II laboratory requirements:
ANT 173, AST 112, BIO 101, BIO 105, BIO 110, CHM 101, CHM 127, CHM 131, CHM 161, GEL 100, GEL 102, GEL 130, GEO 105, HON 140, MET 240, PHS 151, PHS 371, PHY 127, PHY 170, PHY 175.

(continued)
**Group III. Social Sciences**  
(At least 6 semester hours)

**Subgroup A. Behavioral Sciences**  
(At least 3 semester hours):

- BLR 325/WST 325 - Women and the Law 3(3-0)
- CDO 130 - Normal Speech and Language Acquisition 3(3-0)
- ECO 222 - Behavioral Economics 3(3-0)
- HDF 100 - Human Growth and Development: Lifespan 3(3-0)
- HON 120 - The Individual and Community in Modern Society 6(6-0)
- HST 228 - American Business: A History 3(3-0)
- PSC 101 - Political Behavior 3(3-0)
- PSY 100 - Introduction to Psychology 3(3-0)
- PSY 334/WST 334 - Psychology of Women 3(3-0)
- SOC 201 - Social Psychology 3(3-0)
- WST 325/BLR 325 - Women and the Law 3(3-0)
- WST 334/PSY 334 - Psychology of Women 3(3-0)

**Subgroup B. Studies in Social Structures**  
(At least 3 semester hours):

- ANT 170 - Cultural Anthropology 3(3-0)
- ANT 202 - Legal Environment of Business 3(3-0)
- ECO 110 - Economics and Society 3(3-0)
- ECO 280 - Economies of the World 3(3-0)
- ENG 175 - The Nature of Language 3(3-0)
- GEO 121 - Cultures of the World 3(3-0)
- GEO 317 - Economic Geography 3(3-0)
- HDF 212 - The Family in Cultural Perspective 3(3-0)
- HON 120 - The Individual and Community in Modern Society 6(6-0)
- HST 106 - Twentieth Century: Western World Issues 3(3-0)
- HST 111 - United States to 1865 3(3-0)
- HST 112 - United States 1865 to the Present 3(3-0)
- HST 347 - The French Revolution and Napoleonic Period 3(3-0)
- JRN 101 - Mass Communications in Contemporary Society 3(3-0)
- PSC 100 - Introduction to Political Science 3(3-0)
- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 150 - World Politics 3(3-0)
- PSC 151 - The U.S. and the World 3(3-0)
- PSC 242 - Introduction to Comparative Politics 3(3-0)
- PSC 281 - State and Local Government 3(3-0)
- SOC 100 - Introductory Sociology 3(3-0)
- WST 325/BLR 325 - Women and the Law 3(3-0)
- WST 334/PSY 334 - Psychology of Women 3(3-0)

*BLR 202 may not be applied toward the University Program requirements if a student is earning the Bachelor of Science in Business Administration degree.

**Group IV. Integrative and Area Studies**  
(At least 9 semester hours)

**Subgroup A. Integrative and Multi-disciplinary Studies**  
(At least 3 semester hours):

- AMD 252 - Dress and Culture 3(3-0)
- ANT 101/SOC 101 - Social Justice in a Global Society 3(3-0)
- ANT 200 - Education and Culture 3(3-0)
- ANT 356 - Primate Behavior 3(3-0)
- ANT 365 - Current American Indian Issues 3(3-0)
- ART 363 - Design: The Interface of Art and Industry 3(3-0)
- BIS 104/CPS 100 - Computers and Society 3(3-0)
- CPS 100/BIS 104 - Computers and Society 3(3-0)
- ECO 230/WST 230 - Women in the Economy 3(3-0)
- ENV 101 - Introduction to Environmental Studies 3(3-0)
- GEO 120 - Environmental Geography 3(3-0)
- GRN 247 - Introduction to Gerontology 3(3-0)
- HSC 106 - Healthy Lifestyles 3(3-0)
- HST 221/WST 221 - Growing Up in America 3(3-0)
- HST 340 - The High Middle Ages 3(3-0)
- HST 379/HUM 340 - Race, Class and Power: South Africa in the 20th Century 3(3-0)
- HUM 301 - Medieval Synthesis: Love in the Middle Ages 3(3-0)
- HUM 303 - Law and Society: Great Trials 3(3-0)
- HUM 340/HST 379 - Race, Class and Power: South Africa in the Twentieth Century 3(3-0)
- HUM 370 - The Age of Augustus 3(3-0)
- IND 332 - Human Shelter and Environment 3(3-0)
- JRN 372 - International and Cross-cultural Mass Communication 3(3-0)
- PHL 225/PSY 225 - Foundations of Cognitive Science 3(3-0)
- PHL 325 - Philosophy of Mind 3(3-0)
- PSC 326/WST 326 - Women and Politics 3(3-0)
- PSC 373 - American Individualism 3(3-0)
- PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)
- PSY 225/PHL 225 - Foundations of Cognitive Science 3(3-0)
- PSY 332 - Evolutionary Psychology 3(3-0)
- PSY 382 - Perception 3(3-0)
- PSY 387 - Behavioral Neuroscience 3(3-0)
- REL 207/WST 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)
- SOC 101/ANT 101 - Social Justice in a Global Society 3(3-0)
- SOC 221 - Social Problems 3(3-0)
- SOC 223 - Urban Structures and Change 3(3-0)
- WST 207/REL 207 - Women in Religion 3(3-0)
- WST 221/HST 221 - Growing Up in America 3(3-0)
- WST 230/ECO 230 - Women in the Economy 3(3-0)
- WST 326/PSC 326 - Women and Politics 3(3-0)
Group IV, continued

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 122, 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 3(3-0)
- ANT 321 - Cultures of Latin America 3(3-0)
- ANT 322 - Cultures of Africa 3(3-0)
- ANT 324 - Cultures of the South Pacific 3(3-0)
- ANT 326 - Chinese Societies 3(3-0)
- CHN 101 - Elementary Chinese I 4(4-0)
- CHN 102 - Elementary Chinese II 4(4-0)
- ECO 281 - Economic Development of the Pacific Rim 3(3-0)
- EUR 303/PSC 341 - Comparative Politics: Eastern Europe 3(3-0)
- EUR 304 - The European Economy 3(3-0)
- FRN 101 - Elementary French I 4(4-0)
- FRN 102 - Elementary French II 4(4-0)
- FRN 201 - Intermediate French I 4(4-0)
- FRN 202 - Intermediate French II 4(4-0)
- GEO 373 - Latin America 3(3-0)
- GER 101 - Elementary German I: Language and Culture 4(4-0)
- GER 102 - Elementary German II: Language and Culture 4(4-0)
- GER 201 - Intermediate German I 4(4-0)
- GER 202 - Intermediate German II 4(4-0)
- HDF 318 - Indigenous Families and Survival: A Global Perspective 3(3-0)
- 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)
- JPN 101 - Elementary Japanese I 4(4-0)
- JPN 102 - Elementary Japanese II 4(4-0)
- JPN 201 - Intermediate Japanese I 4(4-0)
- JPN 202 - Intermediate Japanese II 4(4-0)
- LAT 101 - Elementary Latin I 4(4-0)
- OJB 101 - Elementary Ojibwe I 3(3-0)
- PHL 305 - Chinese Philosophy 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 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 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)
- REL 200 - 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)
- REL 314 - Islam 3(3-0)
- REL 320 - The Buddhist Tradition 3(3-0)
- RUS 101 - Elementary Russian I 4(4-0)
- SOC 310 - Life in Russia Today 3(3-0)
- SPN 101 - Elementary Spanish I 4(4-0)
- SPN 102 - Elementary Spanish II 4(4-0)
- SPN 201 - Intermediate Spanish I 4(4-0)
- SPN 202 - Intermediate Spanish II 4(4-0)

**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 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)
- BLR 365 - Native American Justice Through Law 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)
- HDF 110 - Oppression: Roots and Impact on Human Development in the United States 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)
- JRN 380 - Racial Diversity: Mass Media’s Role 3(3-0)
- LAR 145 - Racism and Diversity in America 3(3-0)
- PHL 345/PSC 325/REL 345/SOC 345 - The Civil Rights Movement 3(3-0)
- PSC 125 - African-American Politics 3(3-0)
- PSC 325/PSC 345/PSC 325/PSC 345/PSC 325/REL 345/PSC 325/REL 345 - The Civil Rights Movement 3(3-0)
- REL 140 - Religion, Race and Discrimination in America 3(3-0)
- REL 240 - African-American Religion 3(3-0)
- REL 342 - From Spirituals to Gospel 3(3-0)
- REL 345/PHL 345/REL 345/PSC 325/REL 345 - The Civil Rights Movement 3(3-0)
- REL 347 - African American Reflections on Racism 3(3-0)
- SOC 323 - Racism and Inequality 3(3-0)
- SOC 345/PSC 345/PSC 325/REL 345/REL 345 - The Civil Rights Movement 3(3-0)

**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.

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 and Placement Testing Center (for more information, see http://www.cmich.edu/cbptc/ or call 989-774-1092).

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, 989-774-3631.

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, ELI 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 Centrais 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 ELI 198 and ELI 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 and Placement Testing Center (for more information, see http://www.cmich.edu/cbptc/ or call 989-774-1092).

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 published every semester.

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 a 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 School of Music 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.
<table>
<thead>
<tr>
<th>Major or Minor</th>
<th>Major</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) | No |
- **Accounting**: Yes (BSBA) | Yes |
- **Accounting Information Systems**: Yes (BSBA) | No |
- **Advertising**: No | Yes |
- **Allied Health**: No | Yes |
- **American Ethnic Studies**: No | Yes |
- **American Indian Studies**: No | Yes |
- **American Sign Language**: No | Yes |
- **Anthropology**: Yes (BA; BS) | Yes |
- **Apparel Merchandising and Design***: Yes (BA; BAA; BS) | Yes |
- **Art ***: Yes (BA; BAA; BFA; BS) | Yes |
- **Art History**: No | Yes |
- **Athletic Coaching**: No | Yes |
- **Athletic Training/Sports Medicine**: Yes (BA; BAA; BS) | No |
- **Bilingual Bicultural Education-Ojibwe**: No | Yes |
- **Bilingual Bicultural Education-Spanish**: No | Yes |
- **Biochemistry**: Yes (BA; BS) | No |
- **Biology**: Yes (BSEd: Secondary or Secondary with Emotional/Cognitive Impairment Endorsement) | Yes |
- **Biology/Biomedical Science**: Yes (BA; BS) | No |
- **Biology/general option**: Yes (BA; BS) also see below | No |
- **Biology/microscopy option**: Yes (BA; BS) | 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 |
- (See also General, Global and International Business) | |
- **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 |
- **Communication***: Yes (BA; BAA; BS) | Yes |
- **Communication Disorders**: Yes (BAA; 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 |
- **English ***: Yes (BA; BS; BSEd: Elementary, Secondary, or Secondary with Emotional/Cognitive Impairment Endorsement) | Yes |
- **English as a Second Language**: No | Yes |
- **Environmental Studies***: Yes (BA; BS) | Yes |
- **Entrepreneurship**: Yes (BAA) | Yes |
- **Ethics, Values, and Society**: No | Yes |
- **European Studies**: Yes (BA; BS) | Yes |

(continued)
<table>
<thead>
<tr>
<th>Major or Minor (offers concentrations)</th>
<th>Major (and applicable degrees)</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Management</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Exercise Science</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Family Life &amp; Human Sexuality</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Family Studies</td>
<td>Yes (BA; BAA; BS)</td>
<td>No</td>
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<tr>
<td>Finance</td>
<td>Yes (BSBA)</td>
<td></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>
<td>No</td>
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<tr>
<td>General Business Administration *</td>
<td>Yes (BSBA)</td>
<td>No</td>
</tr>
<tr>
<td>General Management</td>
<td>Yes (BSBA)</td>
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<tr>
<td>Geographic Information Sciences</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Geography *</td>
<td>Yes (BA; BS; BSEd: Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
<td>Yes</td>
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<tr>
<td>Geology *</td>
<td>Yes (BA; BS)</td>
<td>Yes</td>
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<tr>
<td>German</td>
<td>Yes (BA; BS; BSEd: Elementary or Secondary)</td>
<td>Yes</td>
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<tr>
<td>Gerontology</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Global Business</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Global Justice</td>
<td>No</td>
<td>Yes</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</td>
<td>Yes (BA; BAA; BS)</td>
<td>No</td>
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<tr>
<td>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>
<td>Yes</td>
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<tr>
<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>
</tr>
<tr>
<td>Hydrogeology/Environmental Geology</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Industrial Education</td>
<td>Yes (BSEd: Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
<td>Yes</td>
</tr>
<tr>
<td>Industrial Safety</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Industrial Technology Management *</td>
<td>Yes (BA; BAA; BS)</td>
<td>No</td>
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<tr>
<td>Industrial Technology</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Information Systems</td>
<td>Yes (BSBA)</td>
<td>Yes</td>
</tr>
<tr>
<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>
<td>Yes (BA; BAA; BS)</td>
<td>No</td>
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<tr>
<td>Interior Design</td>
<td>Yes (BA; BAA; BS)</td>
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<tr>
<td>International Business</td>
<td>Yes (BSBA)</td>
<td>No</td>
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<tr>
<td>Journalism* (see also Online Journalism)</td>
<td>Yes (BA; BS)</td>
<td>Yes</td>
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<tr>
<td>Language Arts</td>
<td>Yes (BSEd: Elementary)</td>
<td>Yes</td>
</tr>
<tr>
<td>Latin American Studies</td>
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<td>Yes</td>
</tr>
<tr>
<td>Law and Economics</td>
<td>Yes (BA; BS; BSBA)</td>
<td>No</td>
</tr>
<tr>
<td>Leadership</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Legal Studies</td>
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<td>Yes</td>
</tr>
<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>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Engineering Technology</td>
<td>Yes (BSET)</td>
<td>No</td>
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<tr>
<td>Marketing *</td>
<td>Yes (BSBA)</td>
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<td>Mathematics</td>
<td>Yes (BA; BS; BSEd: Elementary, Secondary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<td>Mechanical Engineering</td>
<td>Yes (BSME)</td>
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<td>Mechanical Engineering Technology</td>
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<td>Media Design, Production and Technology</td>
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<td>Meteorology</td>
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<td>Middle Level Education</td>
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<td>Military Science</td>
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<td>Major or Minor</td>
<td>Major</td>
<td>Minor</td>
</tr>
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<td>-------</td>
</tr>
<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>
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<td><strong>Majors and Minors</strong></td>
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<td>Museum Studies</td>
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<td>Music *</td>
<td>Yes (BA; BMus; BMusEd; BS)</td>
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<td>Music Theatre</td>
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<td>Neuroscience</td>
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<td>Outdoor and Environmental Education</td>
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<td>Personal and Community Health</td>
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<td>Personal Financial Planning</td>
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<td>Philosophy</td>
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<td>Photojournalism</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>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>
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<td>Recreation *</td>
<td>Yes (BA; BAA; BS)</td>
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<td>Religion</td>
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<td>Retail Management</td>
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<td>School Heath Education</td>
<td>Yes (BSEd: Elementary, Secondary, or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<td>Science (see also Integrated Science)</td>
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<td>Social Science</td>
<td>Yes (BA; BS)</td>
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<td>Social Studies</td>
<td>Yes (BA; BS; BSEd: Elementary or Secondary)</td>
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<td>Social Work</td>
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<td>Yes (BA; BS)</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>Yes</td>
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<td>Speech</td>
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<td>Sport Studies</td>
<td>Yes (BA; BAA; BS)</td>
<td>Yes</td>
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<td>Statistics</td>
<td>Yes (BA; BS)</td>
<td>Yes</td>
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<td>Substance Abuse Education: Prevention, Intervention, and Treatment</td>
<td>No</td>
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<td>Teachers of Students with Emotional Impairment</td>
<td>Yes (BSEd: Elementary or Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<td>Teachers of Students with Cognitive Impairment</td>
<td>Yes (BSEd: Elementary 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>
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<tr>
<td>Women's Studies</td>
<td>Yes (BA; BAA; BS)</td>
<td>Yes</td>
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</table>
Discover how to become a future leader and innovator through interdisciplinary studies.

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 John Daniels, advisor, 989-774-2894, Pearce 206E, john.daniels@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 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)

Required Courses II (2-3 hours)

Choose 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 352 - 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
American Indian Studies Minor
B.A., B.A.A., and B.S. degrees

Required Courses (12 hours)
- Select 6 hours of OJB:
  - ANT 320 - North American Indian Cultures 3(3-0)
  - HST 323 - History of Native Americans 3(3-0)
  - OJB 101 - Elementary Ojibwe I 3(3-0)
  - OJB 102 - Elementary Ojibwe II 3(3-0)
  - OJB 201 - Intermediate Ojibwe I 3(3-0)
  - OJB 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 533 - 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 513 - Foundations of Bilingual Bicultural Education 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)
- 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.

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 513 - Foundations of Bilingual Bicultural Education 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

Earth Science Major
B.S. in Ed. degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Advisors: Mark Francek, Wayne Kiwer, David Matty, Sven Morgan

This major 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 workshop 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 (continued)
twice during the Spring semester. The Interdisciplinary Science Education Council oversees these training workshops.

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 100 - Introduction to Earth Systems 3(2-2)
- GEL 130 - Earth Processes 3(2-2)
- GEL 201 - Earth History 3(2-2)
- GEL 205 - Oceanography 3(3-0)
- GEO 201 - Weather and Climate 4(4-0)
- GEO/GEL 205 - Oceanography 3(3-0)
- OPTION A (6 hours)
  - MTH 105 - 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: 51 semester hours**
(39 hours of required Earth Science courses)

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**Earth Science Minor**

**B.S. in Ed. degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement**

**Advisors:** Francek, Becker, Matty, 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 web site for the training workshops’ schedule. 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 100 - Introduction to Earth Systems 3(2-2)
- GEL 130 - Earth Processes 3(2-2)
- GEL 201 - Earth History 3(2-2)
- GEL 205 - Oceanography 3(3-0)
- OPTION A (6 hours)
  - MTH 105 - 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: 28 semester hours**

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**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:
  - GEO 210 - Landforms 3(2-2)
  - GEL 413 - Geomorphology 3(3-0)

**Required Courses IV (3 hours)**
- Select one of the following:
  - GEL 130 - Earth Processes 3(2-2)
  - GEL 100 - Introduction to Earth Systems 3(2-2)

**Required Courses V (3 hours)**
- Select one of the following:
  - SCI 400 - Teaching Integrated Science in Secondary School 3(2-2)
  - ESC 400 - Earth Science Education 3(2-2)

**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 105 - 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: 56 semester hours**
(49 hours of required Earth Science courses)
Interdisciplinary Majors and Minors

Earth Science Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees
Advisors: Francek, Becker, Matty, Morgan

Required Courses I (3-4 hours)
Select one of the following:
- GEO 201 - Weather and Climate 4(4-0)
- MET 240 - Meteorology 3(2-2)

Required Courses II (7 hours)
- GEL 102 - Physical Geology Laboratory 1(0-2)
- GEO/GEL 205 - Oceanography 3(3-0)
- GEO 210 - Landforms 3(2-2)

Required Courses III (3 hours)
- GEL 101 - Physical Geology 3(3-0)
- GEL 301 - Geology and Michigan 3(3-0)

Electives (10-11 hours)
Selected in consultation with the minor advisor.

Total: 24 semester hours

Entrepreneurship Major
B.A.A. degree
Advisor: James Damitio (ABSC 168, 989-774-3699)
This major is listed in the College of Business Administration section. See the index for the - number.

Entrepreneurship Minor
Advisor: James Damitio (ABSC 168, 989-774-3699)
This major is listed in the College of Business Administration section. See the index for the page number.

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, 989-774-4409, 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 201 - Weather and Climate 4(4-0)
- 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 240 - Meteorology 3(2-2)

Note: You cannot take both GEO 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)

(continued)
Interdisciplinary Majors and Minors

IET 525 - Hazardous Materials Technology 3(3-0)
IND 332 - Human Shelter and Environment 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 522 - Regulatory Processes and Administrative Law 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: 56-57 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 Politics and Policy 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)
GEL 402 - Environmental Geochemistry 3(3-0)
GEO 201 - Weather and Climate 4(4-0)
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 240 - Meteorology 3(2-2)
PHY 130 - College Physics I 4(4-0)
PHY 131 - College Physics II 4(4-0)

Note: You cannot take both GEO 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)
HSC 352 - Environmental Health 3(3-0)
HST 322 - Westward Movement in America 3(3-0)
IET 525 - Hazardous Materials Technology 3(3-0)
IND 332 - Human Shelter and Environment 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 (plus 0-6 hours of prerequisites, depending on the electives chosen)
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, 989-774-3424.

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.*

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 200 - The Medieval Civilization 3(3-0)
HST 238 - Ancient Greece and Rome 3(3-0)
HST 341 - Renaissance and Reformation 3(3-0)
HST 342 - The Enlightenment in Europe 3(3-0)
HST 343 - Russia in the Nineteenth and Twentieth Centuries 3(3-0)
HST 344 - The Reign of Catherine the Great 3(3-0)
HST 347 - Comparative Politics: Eastern Europe 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)
HST 356 - Europe Since 1945 3(3-0)

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 361 - European Romanticism 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 342 - The Enlightenment in Europe 3(3-0)
PSC 275 - Great Political Thinkers 3(3-0)
REL 313 - Christianity 3(3-0)

Total: 36 semester hours

Interdisciplinary

European Studies Minor

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, 989-774-3424.

Required Courses I (9 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 (3 hours)
Select one 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 or a major in a European language (French, German, or Spanish).

3. Upper Division Elective

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 - Economics of the World 3(3-0)
ECO 320 - European and Asian Economic History 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 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 340 - The High Middle Ages 3(3-0)
HST 341 - Renaissance and Reformation 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)
HST 542 - The Enlightenment in Europe 3(3-0)
HST 548 - Russian Thought 3(3-0)
HST 558 - Europe, 1914-1945 3(3-0)
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)

3. Other Requirement (3 hours)

Select one of the following:
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/WST 575 - Geriatric Nutrition 3(3-0)
GRN 590 - Independent Study 1-4(Spec)
HSC 517 - Drugs and the Elderly 2(2-0)
HSC 519 - Death Education and Suicide Prevention 3(3-0)
REL 334 - Death and Dying: Religious Dimensions 3(3-0)
REL 335 - Therapeutic Recreation: Gerontology 3(3-0)
REL 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, economics, 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)
HST 349 - Russia in the Nineteenth and Twentieth Centuries 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.
ENG 561 - European Romanticism 3(3-0)
HST 340 - The High Middle Ages 3(3-0)
HUM 303 - Law and Society: Great Trials 3(3-0)
SOC 221 - Social Problems 3(3-0)

Total: 24 semester hours

Interdisciplinary
Integrated Science Major
B.S. in Ed. degree, Provisional Elementary Certification

Advisors: Anton Jensen (CHM), Stanley Hirschi (PHY), David Matty (GEL), Mark Francek (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 36 semester hours on their Integrated Science major 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 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 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 the students for the training and no credit hours are 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 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 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:
GEO 100 - Introduction to Earth Systems 3(2-2)
GEO 130 - Earth Processes 3(2-2)

Required Courses IV (3 hours)
Select one of the following:
GEO 201 - Earth History 3(2-2)
GEO 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)
GEO 201 - Weather and Climate 4(4-0)

Required Courses VII (3 hours)
Select one of the following:
BIO 351 - Biological Science for Elementary Teachers 3(Spec)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)
CHM 151 - Introductory Physical Science I 3(2-2)
CHM 251 - Introductory Physical Science II 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 Jensen (CHM), Stanley Hirschi (PHY), David Matty (GEL), Mark Francek (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 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.

(continued)
Interdisciplinary Majors and Minors

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 the care of living things from trained personnel prior to applying for student teaching. 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 II (11 hours)

AST 111 - Astronomy 3(3-0)
BIO 110 - Concepts of Biology 4(3-3)
BIO 101 - General Botany 3(2-3)
CHM 127 - Introductory Chemistry Laboratory 1(0-2)
PHS 101 - Survey of Physical Science 3(3-0)
PHY 127 - Table Top Physics 1(0-2)

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)
GEO 201 - Weather and Climate 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)
GEO 201 - Weather and Climate 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

Interdisciplinary

**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 - Electronic Media 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 - Electronic Media Performance 3(2-2)
- BCA 318 - Radio and Television News 3(3-0)
- BCA 411 - Long-Form Electronic Media Writing 3(3-0)
- BCA 503 - Critiquing Mass Media 3(3-0)
- BCA 511 - Electronic Media 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)

**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

Interdisciplinary

**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)**

- 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 and Middle Schools 4(3-1)
- ENG 381 - Children's Literature 3(3-0)

(continued)
Other Requirements I (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)

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 not taken in the core section:
- 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:
- 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(3-0)

Other Requirements V (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)

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 and Middle Schools 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(3-0)

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, 989-774-3656; or Dr. Mary-Garland Jackson, Department of Foreign Languages, Literatures, and Cultures, 313 Pearce Hall, 989-774-3447

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.
Interdisciplinary Majors and Minors 143

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 broad perspective of leadership practices into a specific historical, political, and/or social context. Each course provides a 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 - Rhetoric and Argumentation 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 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)
HDF 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, HDF 100, or PSY 220.

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)
HDF 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, HDF 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 - Rhetoric and Argumentation 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)

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 (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 of HST from component courses listed under Electives.

Required Courses IV (3 hours)
Three hours of 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 320 - South American Archaeology 3(3-0)
ANT 326 - Hispanic Cultures in the U.S. 3(3-0)
HST 362 - Latin American Revolutions: Mexico, Cuba and Central America 3(0)
HST 562 - The Atlantic World in the Age of Empire 3(3-0)
PSC 348 - Latin American Political Systems 3(3-0)
HST 163 - The Latin American Experience 3(3-0)
GEO 373 - Latin America 3(3-0)
ANT 321 - Cultures of Latin America 3(3-0)

SPN 417 - Spanish-American Poetry and Short Story 3(3-0)
SPN 416 - Spanish-American Drama and Essay 3(3-0)
SPN 415 - Spanish-American Novel 3(3-0)
SPN 389 - 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 411 - 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 fourth 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.
Interdisciplinary Majors and Minors

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
989-774-3829 (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 lives 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.
   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)
AMD 155 - Introduction to Textiles 3(2-2)
AMD 355 - Textile Analysis 3(2-2)
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 384 - Arts of Non-European Traditions 3(3-0)
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)
GEL 102 - Physical Geology Laboratory 1(0-2)
GEL 320 - Earth Materials 3(2-3)
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)
IND 328 - Design History and Criticism 3(3-0)
MGT 312 - Introduction to Management 3(3-0)
MKT 300 - Introduction to Marketing 3(3-0)
MST 547 - Museum Science Laboratory 3(0-6)
MUS 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(0-2)
MUS 206 - Understanding Musical Composition 3(3-0)
MUS 206 - Understanding Musical Composition 3(3-0)

Interdisciplinary

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, 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. 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 - Stagecraft and Stage Lighting 4(4-0)
DAN 133 - Dance Technique I 2(1-2)
DAN 134 - Dance Technique II 2(1-2)
MUS 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(0-2)
MUS 206 - Understanding Musical Composition 3(3-0)

(continued)
**Interdisciplinary Majors and Minors**

**Natural Resources Minor**

*B.A.; B.A.A.; B.S.; B.S. in B.A. degrees*

Students with the Natural Resources Minor (NRM) have majors in a variety of areas such as Outdoor Recreation, Biology, Geography, and Environmental Studies. Majors do not typically allow course choices from outside the major department.

The NRM serves as a tool to broaden and strengthen the chosen major by allowing diverse courses to be selected according to student needs and interests. The NRM has a balanced set of core courses that offer understanding of the nature of the various natural resources, their importance, and their various management problems and opportunities. Depending on the specific interests or professional needs of the student, the NRM advisor can help to choose among a number of electives that satisfy both student interest and professional goals.

**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.

In addition, students must:

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.

**Required Courses (15 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIO 240</td>
<td>Conservation of Natural Resources</td>
<td>3</td>
</tr>
<tr>
<td>BIO 340</td>
<td>Ecology 3(2-3)</td>
<td></td>
</tr>
<tr>
<td>GEL 100</td>
<td>Introduction to Earth Systems</td>
<td>3</td>
</tr>
<tr>
<td>GEL 201</td>
<td>Earth History 3(2-2)</td>
<td></td>
</tr>
<tr>
<td>GEO 203</td>
<td>Introduction to Geographic Information Science</td>
<td>3(2-2)</td>
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</table>

**Electives (9 hours)**

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>BIO 229</td>
<td>Nature Study 3(2-3)</td>
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<tr>
<td>BIO 361</td>
<td>Water Conservation 1(Spec)</td>
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<tr>
<td>BIO 362</td>
<td>Forest Conservation 1(Spec)</td>
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<td>BIO 363</td>
<td>Fisheries Conservation 1(Spec)</td>
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<tr>
<td>BIO 364</td>
<td>Wildlife Conservation 1(Spec)</td>
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<td>BIO 366</td>
<td>Freshwater Biology 3(2-3)</td>
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<td>BIO 440</td>
<td>Wildlife Ecology 4(2-4)</td>
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<td>BIO/GEO 334</td>
<td>Soil Science 3(2-2)</td>
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<td>BLR 521</td>
<td>Environmental Law and Policy 3(3-0)</td>
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<td>GEO 304</td>
<td>Earth Resources 3(3-0)</td>
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<tr>
<td>GEL 320</td>
<td>Earth Materials 3(2-3)</td>
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<tr>
<td>GEL 380</td>
<td>Hydrogeology 3(2-3)</td>
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<td>GEO 303</td>
<td>Geographic Information Systems - I 3(2-2)</td>
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<td>GEO 305</td>
<td>Remote Sensing of the Environment 3(2-2)</td>
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<td>GEO 310</td>
<td>Surface Hydrology 3(2-2)</td>
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<tr>
<td>GEO 335</td>
<td>Biogeography 3(3-0)</td>
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<td>GEO 404</td>
<td>Global Positioning System 1(1-0)</td>
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<tr>
<td>GEO 503</td>
<td>Geographic Information Systems 3(2-2)</td>
<td></td>
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</tbody>
</table>

Total: 24 semester hours

**Interdisciplinary Neuroscience Major**

*B.S. degree*

This multidisciplinary major integrates courses from four departments: biology, chemistry, rehabilitation and medical sciences, and psychology. The major is designed to provide students with the requisite academic background, technical skills, and hands-on research experience to successfully compete for either neuroscience-related jobs in the private and public sectors or for admission to graduate or professional schools. The major consists of 27 credit hours of required courses and 12 credit hours of electives from courses in biology, health promotion and rehabilitation, and/or psychology. In addition, a minimum of 12 credit hours of chemistry will be required.

**Required Courses I (19 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIO 101</td>
<td>General Biology 3(2-2)</td>
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<tr>
<td>BIO 392</td>
<td>Mammalian Physiology 4(3-3)</td>
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</tr>
<tr>
<td>BIO 591</td>
<td>Neurophysiology 3(3-0)</td>
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</tr>
<tr>
<td>PSY 100</td>
<td>Introduction to Psychology 3(3-0)</td>
<td></td>
</tr>
<tr>
<td>PSY 387</td>
<td>Behavioral Neuroscience 3(3-0)</td>
<td></td>
</tr>
<tr>
<td>PSY 588</td>
<td>Functional Neuroanatomy 3(3-0)</td>
<td></td>
</tr>
</tbody>
</table>

**Required Courses II (2 hours)**

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 487</td>
<td>Neuroscience Seminar 1-2(Spec)</td>
<td></td>
</tr>
<tr>
<td>PSY 487</td>
<td>Neuroscience Seminar 1-2(Spec)</td>
<td></td>
</tr>
</tbody>
</table>

(two semesters, for a maximum of two credits)

**Required Courses III (3 hours)**

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 500</td>
<td>Biological Statistics 3(2-2)</td>
<td></td>
</tr>
<tr>
<td>HSC 544</td>
<td>Biostatistics 3(2-1)</td>
<td></td>
</tr>
<tr>
<td>PSY 211</td>
<td>Introduction to Psychological Statistics 3(3-0)</td>
<td></td>
</tr>
</tbody>
</table>

**Required Courses IV (3 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 403</td>
<td>Undergraduate Research 3-4(Spec)</td>
<td></td>
</tr>
<tr>
<td>PSY 496</td>
<td>Directed Research 1-6(Spec)</td>
<td></td>
</tr>
</tbody>
</table>
Interdisciplinary Majors and Minors

Other Requirements I (5-8 hours)
Students must 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)

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 - Fundamentals of Biochemistry 3(3-0)
- CHM 522 - Intermediate Biochemistry 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 326 - 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)
- HSC 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 - United States to 1865 3(3-0)
- HST 112 - United States 1865 to the Present 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

(continued)
Interdisciplinary Majors and Minors

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:
- ECO 310 - American Economic Development 3(3-0)
- ECO 430 - Views of the Future of the U.S. Economy 3(3-0)
- 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 371 - American Political Thought 3(3-0)
- PSC 372 - American Radical Thought 3(3-0)
- PSC 421 - Constitutional Law: Powers of Government 3(3-0)
- PSC 422 - Constitutional Law: Civil Rights and Liberties 3(3-0)

(or any American History course)

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 324 - African-American History to 1915 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

Interdisciplinary 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)
- GEO 121 - Cultures of the World 3(3-0)
- PSC 105 - Introduction to American Government and Politics 3(3-0)
- PSC 305 - Midtier Teaching in Political Science 2(1-2)
- PSC 405 - Methods for Teaching Political Science 3(3-0)

Social Studies majors who have completed a midtier course for a second major in History (HST 300) may have the requirement of PSC 305 waived on their program.

Required Courses II (9 hours)
Additional hours of Political Science chosen from the following:
- ECO 301 - Environmental Economics 3(3-0)
- ECO 306 - Money and Banking 3(3-0)
- 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)
- GEO 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 supplies 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 (989-774-3601).

#### 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)
- Two of the following:
  - 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)
  - PSY/WST 334 - Psychology of Women 3(3-0)
  - SOC/WST 317 - Sociology of Sex and Gender 3(3-0)

#### Electives (6 hours)
- Chosen from the courses not selected from the lists above, 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)
      - HDF/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: 30 semester hours**

### 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 (989-774-3601).

#### 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)
  - 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)
      - HDF/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)
      - 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, 989-774-3124)
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 (42 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/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 2(1-2)
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)

Other 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.
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: 47 or 50 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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPS 180 - Principles of Computer Programming</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 181 - Introduction to Data Structures</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 210 - Assembly Language and Computer Organization</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 280 - Alternative Programming Languages</td>
<td>1-6(Spec)</td>
</tr>
<tr>
<td>CPS 340 - Advanced Data Structures and Algorithms</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 360 - Computer Design and Architecture</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>IET 154 - Engineering Design Graphics</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 359 - Parametric Design and Modeling</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 457 - Computer-Aided Design</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 477 - Advanced Computer Numerical Control Programming</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 502 - Computer Applications in Industry</td>
<td>3(3-0)</td>
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</table>

Electives (12 hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IET Electives (6 hours) selected with the approval of an ET advisor or CPS Electives (6 hours) at CPS 280 level or above and selected with the approval of a CPS advisor.</td>
<td></td>
</tr>
<tr>
<td>CPS 282 - Introduction to Multimedia Design</td>
<td>3(3-0)</td>
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<tr>
<td>CPS 370 - File Manipulation Techniques</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 380 - Microcomputer Architecture</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 410 - Software Engineering</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 420 - Windows Programming</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 480 - Introduction to Artificial Intelligence</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 482 - Advanced Multimedia Design</td>
<td>3(3-0)</td>
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<tr>
<td>CPS 511 - Databases</td>
<td>3(3-0)</td>
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<tr>
<td>CPS 565 - Computer Networks I</td>
<td>3(3-0)</td>
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<td>CPS 575 - Computer Graphics</td>
<td>3(3-0)</td>
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<td>CPS 576 - Digital Image Processing</td>
<td>3(3-0)</td>
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<tr>
<td>IET 170 - Metal Technology</td>
<td>1(1-4)</td>
</tr>
<tr>
<td>IET 326 - Manufacturing Methods Analysis</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>IET 350 - Mechanism Design</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 354 - Descriptive Geometry</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 379 - Mechanics of Materials</td>
<td>3(3-0)</td>
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<tr>
<td>IET 425 - Industrial Internship 2-8(Spec)</td>
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<tr>
<td>IET 426 - Plant Layout and Materials Handling</td>
<td>3(3-0)</td>
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<tr>
<td>IET 450 - Machine Design Graphics</td>
<td>3(2-2)</td>
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<td>IET 455 - Tool Design</td>
<td>3(2-2)</td>
</tr>
<tr>
<td>IET 458 - Surface Modeling</td>
<td>3(2-2)</td>
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</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CPS 180 - Principles of Computer Programming</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 181 - Introduction to Data Structures</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 210 - Assembly Language and Computer Organization</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 340 - Advanced Data Structures and Algorithms</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 360 - Computer Design and Architecture</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 410 - Software Engineering</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 450 - Programming Language Concepts</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 132 - Calculus I</td>
<td>4(4-0)</td>
</tr>
<tr>
<td>MTH 133 - Calculus II</td>
<td>4(4-0)</td>
</tr>
<tr>
<td>MTH 175 - Discrete Mathematics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 223 - Linear Algebra and Matrix Theory</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 233 - Calculus III</td>
<td>4(4-0)</td>
</tr>
<tr>
<td>MTH 332 - Introduction to Analysis</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 438 - Numerical Analysis I</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 523 - Modern Algebra I</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

Electives (11 hours)

Electives, approved by an advisor, from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CPS 282 - Introduction to Multimedia Design</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 370 - File Manipulation Techniques</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 380 - Microcomputer Architecture</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 395 - Internship in Computer Science</td>
<td>1-9(Spec)</td>
</tr>
<tr>
<td>CPS 420 - Windows Programming</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 468 - Systems Programming and Software</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 470 - Introduction to Operating Systems</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 480 - Introduction to Artificial Intelligence</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 482 - Advanced Multimedia Design</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 496 - Special Topics in Computer Science</td>
<td>1-6(Spec)</td>
</tr>
<tr>
<td>CPS 530 - Simulation of Discrete Event Systems</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 541 - Databases</td>
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</tr>
<tr>
<td>CPS 560 - Digital Computer Design</td>
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<tr>
<td>CPS 575 - Computer Graphics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>CPS 596 - Special Topics in Computer Science</td>
<td>1-6(Spec)</td>
</tr>
<tr>
<td>CPS 597 - Independent Study</td>
<td>1-6(Spec)</td>
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<tr>
<td>MTH 334 - Differential Equations</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 375 - Discrete Structures</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 439 - Numerical Analysis II</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 520 - Optimization Theory</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>MTH 521 - Theory of Numbers</td>
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</tr>
</tbody>
</table>

(continued)
MTH 532 - Advanced Calculus I 3(3-0)
MTH 533 - Advanced Calculus II 3(3-0)
MTH 546 - 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

Interdepartmental

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)

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 380 - Microcomputer Architecture 3(3-0)
CPS 468 - Systems Programming and Software 3(3-0)
IET 292 - DC Circuit Analysis 3(2-2)
IET 293 - AC Circuit Analysis 3(2-2)
IET 390 - Discrete Device Theory 3(2-2)
IET 392 - Digital Electronics 3(2-2)
IET 492 - Interfacing with Programmable Devices 3(2-2)
IET 494 - Data Acquisition and Control 3(2-2)
IET 594 - Research and Development Electronics 3(1-4)

Other Requirements (4-5 hours)

Select one of the following options:

Option A (5 hours)

PHY 130 - College Physics I 4(4-0)
PHY 170 - College Physics Laboratory I 1(0-2)

Option B (5 hours)

PHY 145 - University Physics I 4(4-0)
PHY 175 - University Physics Laboratory I 1(0-2)

Option C (4 hours)

CHM 131 - Introduction to Chemistry I 4(3-3)

Option D (5 hours)

CHM 161 - Principles of Chemistry 5(4-4)

Total: 51-52 semester hours

Interdepartmental

General Business Administration Major
B.S. in B.A. degree

Advisors: Linda Wicander (105 Grawn, 989-774-3124)

This major is listed in the College of Business Administration section. See the index for the page number.

Interdepartmental

Global Business Minor
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

Industrial Safety Minor
B.A.; B.A.A.; B.S.; 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 minor 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 205 - Responding to Emergencies 2(1-2)
HSC 352 - Environmental Health 3(3-0)
HSC 529 - Alcohol Education Workshop 1(1-0)
HSC 530 - Drug Abuse Workshop 1(Spec)
IET 227 - Principles of Accident Prevention 3(3-0)
IET 327 - Industrial Safety 3(3-0)
IET 425 - Industrial Internship 2-8(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 537 - 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, 989-774-3193.

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

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; an Information Systems 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).

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.

On average, 90% 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 989-774-3124 for additional information.

Admission to Professional Business Studies is a two-tier process.

Students follow a specific eight 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
   - 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:
   - Completion of at least 42 semester credits with a minimum cumulative GPA of 2.50*.
   - Completion of the following courses:
     - ECO 204 (3) Principles of Macro- and Global Economics
     - ACC 250 (3) Introduction to Financial Accounting
     - BLR 235 (3) Business Law
     - MTH 217 (4) Business Calculus
     - OR MTH 132 (4) Calculus I
     - STA 282 (3) Intro to Statistics
     - OR STA 383 (3) Elementary Statistical Analysis
     - 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 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 110)

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
   - BUS 301 (2) Integrated Business Experience
FIN 302 (3) Integrated Financial Analysis
MGT 303/MKT 303 (3) Integrated Supply Chain Management
MKT 304 (3) Integrated Marketing Management
MGT 499 (3) Integrated Capstone - Strategic Management

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
   - Information Systems
   - International Business
   - Law and Economics
   - Logistics Management
   - 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 469.
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.

#### 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)

- 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)

**Note:** ACC 321 and 370 are required to take the CPA exam.

#### 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, 501, 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, 126.

#### Interdepartmental

### General Business Administration Major

**B.S. in B.A. degree**

Advisor: Linda Wicander (105 Grawn, 989-774-3124)

#### Admission Requirements, Retention & Termination Standards

See page 154.

#### 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)

#### 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, 989-774-3699)

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 entrepreneurship.

#### 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/ENT 200 - Introduction to Entrepreneurship Law 3(3-0)
- ECO/ENT 213 - Economics for Entrepreneurs 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 (989-774-3193)

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)
MGT 457 - Seminar in 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 I 3(3-0)
SPN 335 - Spanish for Business 3(3-0)

Total: 36 semester hours

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. 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. Students are strongly advised to select elective courses in consultation with an Economics or Finance & Law Department advisor.
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 (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.
3. Students are strongly advised to select elective courses in consultation with an Economics or Finance & Law Department advisor

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

**Business Administration Minor**

*B.A.; B.A.A.; B.F.A.; B.S. degrees*

Advisor: Linda Wicander (105 Grawn, 989-774-3124)

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

Interdisciplinary

**Entrepreneurship Minor**

*B.A., B.A.A., B.F.A., and B.S. degrees*

Advisor: James Damitio (ABSC, 989-774-3699)

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 one of 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: 21-22 semester hours

**Electives II (3-4 hours)**

Select from the following:
- ENT 444 - Internship in Entrepreneurship/Not-For-Profit 4-10(Spec)
- ENT 492 - Special Issues in Entrepreneurship 3(Spec)

Total: 21-22 semester hours

Interdepartmental

**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 (ACC)

For information, please contact the chairperson, 989-774-3796, 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 with 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 CPA, CMA, and CIA information, write to the following:

A. For CPA licensing, write:
Michigan State Board of Accounting
Department of Consumer & Industry Services Licensing Division
2501 Woodlake Circle, Okemos, MI 48864

B. For the CMA certificate, write:
Institute of Management Accounting
10 Paragon Drive
Montvale, NJ 07645-1760

C. 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 531 - Auditing and Assurance Services 3(3-0)

Note: ACC 311, 321, 370, 501, and 531 are required to take the CPA exam.
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 IS (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
Majors

Accounting Information Systems Major  
*B.S. in B.A. degree*

This is an interdepartmental major. Please check the index for the page number.

Information Systems Major  
*B.S. in B.A. degree*

**Admission Requirements, Retention & Termination Standards**

To sign a major in 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 I (15 hours)**

- BIS 228 - Computer Programming - COBOL 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)

**Required Courses II (9 hours)**

Select one of the following options:

**Option A - Enterprise Software (9 hours)**

- BIS 357 - ABAP/4 Programming Fundamentals 3(3-0)
- BIS 458 - SAP Configuration and Implementation 3(3-0)

Select 3 additional credit hours of Business Information Systems (BIS) courses approved by an IS faculty advisor.

**Option B - E-Business (9 hours)**

Select three of the following courses:

- BIS 324 - Visual Basic Application Development 3(3-0)
- BIS 327 - Web Site Development 3(3-0)
- BIS 424 - Client/Server Business Application Development 3(3-0)
- BIS 480 - Telecommunications Management 3(3-0)

**Option C - General (9 hours)**

Select 9 credit hours of Business Information Systems (BIS) courses approved by an IS faculty advisor.

**Total: 33 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.

**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 I (2-3 hours)**

Select one of the following:

- BIS 247 - SAP Enterprise Software in Business 3(3-0)
- BUS 301 Integrated Business Experience 2(1-1)

**Required Courses II (3 hours)**

Select one of the following:

- BIS 255 - Information Systems 3(3-0)
- BIS 221 Computers in Business I 3(3-0)

**Required Courses III (6 hours)**

- BIS 420 - Systems Analysis and Design 3(3-0)
- BIS 422 - Data Base Management Systems 3(3-0)

**Electives (9 hours)**

Select from the following courses:

- BIS 228 - Computer Programming - COBOL 3(3-0)
- BIS 288 - Applied Graphics, Photos, and Multimedia 3(3-0)
- BIS 300/ENT 300 - Software Applications in Business 3(3-0)
- BIS 324 - Visual Basic Application Development 3(3-0)
- BIS 327 - Web Site Development 3(3-0)
- BIS 480 - Telecommunications Management 3(3-0)

**Total: 20-21 semester hours**

**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 (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:

- BIS 100 - Introduction to Business 3(3-0)
- BUS 100 - Essential Business Skills 3(3-0)

**Required Courses III (3 hours)**

Select one of the following:

- BIS 221 - Computers In Business I 3(3-0)
- BIS 255 - Information Systems 3(3-0)

**Required Courses IV (6 hours)**

- BIS 420 - Systems Analysis and Design 3(3-0)
- BIS 422 - Data Base Management Systems 3(3-0)

**Electives (6 hours)**

Select two of the following:

- BIS 228 - Computer Programming - COBOL 3(3-0)
- BIS 247 - SAP Enterprise Software in Business 3(3-0)
- BIS 288 - Applied Graphics, Photos, and Multimedia 3(3-0)
- BIS 324 - Visual Basic Application Development 3(3-0)
- BIS 327 - Web Site Development 3(3-0)
- BIS 423 - Decision Support Systems 3(3-0)
- BIS 480 - Telecommunications 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 signed major and/or minor. In addition, students must earn a 2.3 (C+) in each of the following departmental methods courses that are 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 Integrated 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 Career and Technical 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 - Information Processing and Management 3(3-0)
- BIS 288 - Applied Graphics, Photos, and Multimedia 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 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 Integrated 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 Career and Technical 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)
Economics (ECO)
For information, please contact the chairperson, 989-774-3870, 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 are strongly advised to select elective courses in consultation with an Economic Department advisor.

Students earning the Economics major on the B.A. or B.S. degrees are strongly advised to complete the mathematics and statistics courses early in their academic program. Note that MTH 130 is a prerequisite for STA 382.

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)
ECO 201 - Principles of Macroeconomics 3(3-0)
ECO 202 - Principles of Microeconomics 3(3-0)
ECO 306 - Money and Banking 3(3-0)
ECO 365 - Intermediate Microeconomic Theory 3(3-0)
ECO 370 - Intermediate Macroeconomic Theory 3(3-0)

Required Mathematics Courses (4 hours)
Select one of the following courses:
MTH 132 - Calculus I 4(4-0)
MTH 217 - Business Calculus 4(4-0)

Required Statistics Courses (3 hours)
Select one of the following:
ECO 285 - Statistical Methods in Economics 3(3-0)
STA 282 - Introduction to Statistics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Electives (15 hours)
Select 15 hours of ECO courses; 6 hours of ECO courses must be numbered 300 or above, and a maximum of 3 hours of ECO courses at the 100 level.

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.

Students are strongly advised to select elective courses in consultation with an Economic Department advisor.

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)
Select 15 hours of ECO courses; 9 hours of ECO courses must be numbered 300 or above. Total: 21 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.

Students are strongly advised to select elective courses in consultation with an Economic Department advisor.

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)
Select 15 hours of ECO courses; 9 hours of ECO courses 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.

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
**Finance and Law (FIN, BLR)**

For information, please contact the chairperson, 989-774-3362, 332 Sloan Hall

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### 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


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### 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 472 - Money and Capital Markets 3(3-0)
- FIN 499 - Advanced Financial Management 3(3-0)
- FIN 573 - International Finance 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)

**Note:** Any Finance course 300-level or above may be substituted in place of FIN 335.

**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 345 - 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 472 - Money and Capital Markets 3(3-0)
FIN 482 - Working Capital Management 3(3-0)
FIN 490 - Internship in Finance 1-3(Spec)
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

Legal 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

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.

Minors

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 Macroeconomic 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.; 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)

(Note: 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 356 - 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**

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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)

**Electives II (3 hours)**

- Chosen in consultation with Real Estate program advisor.

**Total: 24 semester hours**
**Management**

**Management (MGT)**

For information, please contact the chairperson, 989-774-3193, 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 work force. 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**


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**Majors**

**General Management Major**

*B.S. in B.A. degree*

**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.

**Required Courses (21 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)
- MGT 590 - 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**

**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)
Human Resource Management Major
B.S. in B.A. degree

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**

To sign a major in Human Resource 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 (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)**
Any College of Business Administration course, 300 level or higher.

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)**
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: 30 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 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)

**Elective Courses (12 hours)**
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)

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 (989-774-3193)

This is an interdepartmental major. Please check the index for the page number.
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 (6 hours)
FNS 160 - Introduction to Foods 3(2-2)
HSA 490 - Hospitality Internship 3(Spec)

Electives (9-10 hours)
Select from the following with advisor approval:
FNS 363 - Food Safety and Sanitation 1(1-0)
FNS 365 - Quantity Food Production 2(2-0)
FNS 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)
HSA 397 - Special Topics 1-6(Spec)
HSA 445 - Advanced Food and Beverage Systems Management 3(3-0)
HSA 597 - Special Topics 1-6(Spec)
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)
- HOA 334 - Casino Operation and Management 3(3-0)
- HOA 339 - Protection of Casino Table Games 3(3-0)
- HOA 437 - Gaming Regulations and Control 3(3-0)
- HSA 491 - Independent Studies 1-6(Spec)

Electives (3 hours)
Select one of the following:
- HOA 426 - Accounting for the Hotel Casino 3(3-0)
- HOA 436 - Mathematics of Casino Games 3(3-0)
- HOA 439 - Seminars in Casino Management 3(3-0)
- HOA 442 - Sociology of Gambling 3(3-0)

All HOA 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 Logistics 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)
- MGT 333 - Purchasing Management 3(3-0)
- MKT 305 - Buyer Behavior 3(3-0)
- MKT 330 - Marketing Channels 3(3-0)
- MKT 431 - Logistics Operations 3(3-0)
- MKT 432 - Logistics Strategy 3(3-0)
- MKT 450 - Marketing Research 3(3-0)
- MKT 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 321 - 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)
- MKT 310 - Marketing Communications 3(3-0)
- MKT 320 - Retail Management 3(3-0)
- MKT 340 - Personal Selling 3(3-0)
- MKT 490 - Internship In Marketing/Logistics 3-6(Spec)
- MKT 555 - Market and Sales Forecasting 3(3-0)
- MKT 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)
- MKT 305 - Buyer Behavior 3(3-0)
- MKT 310 - Marketing Communications 3(3-0)
- MKT 330 - Marketing Channels 3(3-0)
- MKT 450 - Marketing Research 3(3-0)
- MKT 490 - Internship In Marketing/Logistics 3-6(Spec)
- MKT 499 - Strategic Marketing Problems 3(3-0)

Planned Program Courses (6 hours)
Select two of the following:
- MKT 315 - Advertising Media 3(3-0)
- MKT 320 - Retail Management 3(3-0)
- MKT 325 - Merchandising Management 3(3-0)
- MKT 340 - Personal Selling 3(3-0)
- MKT 341 - Services Marketing 3(3-0)
- MKT 342 - Logistics Strategy 3(3-0)
- MKT 343 - Retail Management 3(3-0)
- MKT 344 - Business Marketing 3(3-0)
- MKT 455 - Market and Sales Forecasting 3(3-0)
- MKT 560 - International Marketing 3(3-0)

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):
AMD 256 - Introduction to Fashion Industry 3(3-0)
COM 361 - Interpersonal Communication 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 AMD 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:
AMD 332 - Fashion Buying 3(2-2)
AMD 356 - Visual Merchandising 3(3-0)
BIS 445 - Small Business Organization and Operation 3(3-0)
COM 361 - Interpersonal Communication 3(3-0)
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 I (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 II (3 hours)
Select one of the following:
MGT 258 - Effective Management of Human Resources in Organizations 3(3-0)
MGT 312 - Introduction to Management 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 I (9 hours)
Select three of the following:
HSA 210/MGT 210 - Effective Supervision: Principles and Practices 3(3-0)
HSA 331 - Hospitality Industry Information Systems 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 345 - Lodging Operations 3(3-0)
HSA 346 - Lodging Operations 3(3-0)
HSA 347 - 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)
ACC 250 - Introduction to Financial Accounting 3(3-0)
ACC 255 - Managerial Accounting & Decision Making 3(3-0)
BIS 221 - Computers In Business I 3(3-0)
BIS 255 - Information Systems 3(3-0)
BLR 202 - Legal Environment of Business 3(3-0)
BLR 235 - Business Law 3(3-0)
FNS 160 - Introduction to Foods 3(2-2)
FNS 365 - Quantity Food Production 2(2-0)
FNS 366 - Quantity Food Production Laboratory 2(0-4)

Note: You may count either ACC 201 or 250, not both; you may count either ACC 202 or 255, not both; you may count either BIS 221 or 255, not both; you may count either BLR 202 or 235, not both.

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.

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

(continued)
Professional Sales Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

The Professional Sales minor will prepare students for careers in business-to-business sales.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
To sign a minor in Professional Sales:

- 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)
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:

- See an advisor in the Department of Marketing and Hospitality Services Administration.
1. 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.
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, Missa Coffman, Jesse Dominguez, Brian Elder, Lon Ferguson, Richard Gergel, Sharon House, Clark Most, Johanna Paas, Sally Rose, Jonathon Russell, 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 Photography - 35.00

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 advising 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

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<tr>
<td>ART 105 - Drawing I</td>
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<td>Introduction to Drawing</td>
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<tr>
<td>ART 115 - Design I</td>
<td>3(0-6)</td>
<td>Introduction to Design</td>
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<tr>
<td>ART 117 - Introduction to Contemporary Issues in Art</td>
<td>3(3-0)</td>
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<td>ART 118 - Design II</td>
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<td>Design and Composition</td>
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<td>ART 122 - Color and Composition</td>
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Core Courses II (18 hours)

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<td>ART 140 - Photography I: Introduction to Digital Photography</td>
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<td>ART 185 - Introduction to Western Art, Part I</td>
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<td>ART 285 - Introduction to Western Art, Part II</td>
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<td>ART 318 - Aesthetics</td>
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<td>ART 385 - Art in the Twentieth Century</td>
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<td>ART 485 - Seminar in Contemporary Art</td>
<td>3(3-0)</td>
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Three-Dimensional Concentration:
Required Courses (33 hours)

- 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 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 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 438 - Motion Graphics 3(0-6)
  ART 449 - Advanced Typography 3(0-6)
  ART 458 - Web Design II 3(0-6)
  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)

- Select hours in consultation with an advisor from the following:
  ART 105 - Drawing I 3(0-6)
  ART 115 - Design I 3(0-6)
  ART 118 - Design II 3(0-6)
  ART 150 - Printmaking I 3(0-6)
  ART 285 - Introduction to Western Art, Part I 3(3-0)
  ART 318 - Aesthetics 3(3-0)

(continued)
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. BAA 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+ 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(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)
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: Introduction to Digital Photography 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: Digital Montage & Studio Lighting 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 334 - Watercolor Painting 3(0-6)
ART 336 - Illustration 3(0-6)
ART 339 - Digital Imaging II 3(0-6)
ART 340 - Photography III: Analog & Alternative Processes 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: New Media Perspectives 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: Professional Practices 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 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 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)

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 adviser. 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 adviser. 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: Introduction to Digital Photography 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: Digital Montage & Studio Lighting 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 334 - Watercolor Painting 3(0-6)
ART 339 - Digital Imaging II 3(0-6)
ART 340 - Photography III: Analogue & Alternative Processes 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: New Media Perspectives 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)
ART 205 - Making Molds: Sculpture 3(0-6)
ART 270 - Fiber Design II 3(0-6)
ART 300 - 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 586 - Seminar 3(0-6)
ART 487 - Indigenous Arts of North America 3(3-0)
ART 486 - Independent Study in Art History 3-6(Spec)
ART 485 - Seminar in Contemporary Art 3(3-0)
ART 483 - Nineteenth Century European Painting 3(3-0)
ART 482 - Italian High Renaissance Art 3(3-0)
ART 481 - Early Christian and Byzantine Art 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 388 - 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 3-6(Spec)
ART 487 - Indigenous Arts of North America 3(3-0)
ART 586 - Seminar in Art History 3(3-0)

Note: You may not take both ART 318 and ART 319. You may take one of ART 341 or ART 363 or ART 366.

Total: 21 semester hours

Electives I (3 hours)
Selected from any area in the three-dimensional concentration.

Electives II (3 hours)
Students with a 3-D concentration will select three credit electives from the 2-D concentration in consultation with their advisor.

Total: 40 semester hours

Minors

Art Minor
B.A.; B.A.A.; B.F.A.; B.S. degrees
This minor must be arranged in consultation with a departmental adviser.

Required Courses (15 hours)
ART 105 - Drawing I 3(0-6)
ART 115 - Design I 3(0-6)
ART 285 - Introduction to Western Art, Part I 3(3-0)
ART 286 - Introduction to Western Art, Part II 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 388 - Roman 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 388 - 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 3-6(Spec)
ART 487 - Indigenous Arts of North America 3(3-0)
ART 586 - Seminar in Art History 3(3-0)

Total: 21 semester hours

Art History Minor
B.A.; B.A.A.; B.F.A.; B.S. degrees
A minor in art history consists of at least 21 hours in art history, arranged in consultation with a department advisor.

Required Courses (6 hours)
ART 185 - Introduction to Western Art, Part I 3(3-0)
ART 285 - Introduction to Western Art, Part II 3(3-0)

Electives (15 hours)
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 388 - 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 3-6(Spec)
ART 487 - Indigenous Arts of North America 3(3-0)
ART 586 - Seminar in Art History 3(3-0)

Total: 21 semester hours
Broadcast and Cinematic Arts (BCA)

For information, please contact the director, 989-774-3851, 340 Moore Hall

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, the Radio and Television News Directors Association, and American Women in Radio and Television.

The Faculty


ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

In order to sign a BCA major or minor, a student must first meet with an assigned advisor and provide written evidence that the following requirements have been met. These requirements do not apply to the Cinema Studies minor.

I. Grade Point Average (GPA):

A. Prior to applying for admission as a BCA major or minor, a student must have completed 42 semester hours of university work with an overall GPA of 2.30. These 42 hours must include BCA 210 with a minimum grade of C.

B. BCA majors and minors are required to earn a minimum grade of C in each BCA core curriculum course both before and after signing the major and minor.

C. A minimum 2.7 GPA must be achieved in the BCA teaching major.

II. Written English Competency:

Any student wishing to major or minor in BCA must attain a minimum grade of B in ENG 101 or 103. Students not attaining a minimum grade of B in ENG 101 or 103 must earn a minimum grade of C in ENG 201. This requirement can also be fulfilled by receiving ENG 101 equivalency on the university-administered Written English Competency Examination (CLEP).

Students transferring English competency or English composition course credits from another institution will be expected to meet the same standards required of CMU students.

III. Oral English Competency:

Any student wishing to major or minor in BCA must attain a minimum grade of B in TAI 170 or one of its accepted substitutes (COM 101, TAI 302, COM 267, COM 269, or COM 357).

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

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See information at the beginning of this section.

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 - Electronic Media Copywriting 3(3-0)
BCA 499 - Senior Seminar 1(0-2)
BCA 503 - Critiquing Mass Media 3(3-0)
BCA 510 - Electronic Media Law 3(3-0)

Electives (12 hours)
BCA course work selected by the student. 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 - Electronic Media Copywriting 3(3-0)
BCA 317 - Electronic Media Performance 3(2-2)
BCA 499 - Senior Seminar 1(0-2)
BCA 503 - Critiquing Mass Media 3(3-0)
BCA 510 - Electronic Media 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 Electronic Media - 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 (7 hours)
Select from the following:
BCA 332 - Online Electronic Media 3(2-2)
BCA 342 - Field Audio Production 3(1-4)
BCA 411 - Long-Form Electronic Media Writing 3(3-0)
BCA 415 - Television Advertising Production 3(3-0)
BCA 421 - Advanced Audio Production 3(2-2)
BCA 440 - Introduction to Cinematic Production and Post Production 3(2-2)
BCA 441 - Multi-camera Video Producing and Directing 3(2-2)
BCA 508 - Screenwriting for Cinematic Narrative 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)
BCA 521 - Electronic Cinematography 3(2-2)
BCA 522 - Multimedia Audio Post-Production 3(2-2)
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 532 - Advanced Video/Multimedia Post-Production 3(2-2)
BCA 542 - Contemporary Recording & Mixing 3(2-2)
BCA 566 - Hockey’s Cinematic Depictions 1(1-0)

Total: 70 semester hours

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 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. 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 - Electronic Media Copywriting 3(3-0)
BCA 499 - Senior Seminar 1(0-2)
BCA 503 - Critiquing Mass Media 3(3-0)
BCA 510 - Electronic Media 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 - Electronic Media 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 selected by the student. 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 - Electronic Media 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 selected by the student. 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 Electronic 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
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 communication area (COM) 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 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 Communication programs, call the COM 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, Professor Keeley Stanley-Bohn, 989-774-7676.

The Department of Communication and Dramatic Arts offers specialized majors and minors in 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 569 - Communication in the Classroom 3(3-0)
- COM 492 - Speech Methods in Secondary School 4(4-0)
- COM 493 - Field Experience in Speech Education 1(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)

The major and minor both require four 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.

Required Courses III (2 hours)

- Select hours from the following (no more than one hour may be taken in any single TAI studio course):
  - 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 309 - Studio: Stage Management 1-4(Spec)
  - TAI 310 - Studio: Sound 1-4(Spec)
  - TAI 311 - Studio: Properties 1-4(Spec)
  - TAI 312 - Studio: Scenery Construction and Rigging 1-4(Spec)
  - TAI 313 - Studio: Scenery Design 1-4(Spec)
  - TAI 314 - Studio: Lighting 1-4(Spec)
  - TAI 315 - Studio: Lighting Design 1-4(Spec)
  - TAI 316 - Studio: Technical Direction 1-4(Spec)
  - TAI 317 - Studio: Costuming 1-4(Spec)
  - TAI 318 - Studio: Wardrobe Management 1-4(Spec)
  - TAI 320 - Studio: Theatre Management 1-4(Spec)

Generalist Concentration

Required Courses (8 hours)

- 4 hours to be chosen from courses listed under the IPC Concentration and 4 hours to be chosen from the TAI Concentration.

Total: 41 semester hours

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)

Note: TAI 481 has prerequisites or other requirements. Check the course description.

Total: 23 semester hours
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.

Required Courses (19 hours)
COM 100 - Communication and Society 1(1-0)
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)
COM 401 - Capstone in Communication 3(3-0)

Electives (21 hours)
At least 9 credit hours must be taken at the 400 or 500-level with at least 3 credit hours at the 500 level.

Elective Courses I (9-12 hours)
No more than 6 hours from COM 464, COM 490 and COM 495 may count toward the major.

COM 101 - Introduction to Communication 3(3-0)
COM 225 - Introduction to Communication in Virtual Environments 3(3-0)
COM 267 - Introduction to Debate 3(3-0)
COM 269 - Practicum in Debate/Forensics 2-8(Spec)
COM 363 - Principles and Types of Interviewing 3(3-0)
COM 365 - Persuasion and Social Influence 3(3-0)
COM 367 - Nonverbal Communication 3(3-0)
COM 464 - Communication Internship 1-6(Spec)
COM 490 - Independent Study 1-4(Spec)
COM 495 - Communication Facilitation 2-6(Spec)
COM 560 - Communication and Social/Organizational Change 3(3-0)
COM 561 - Communication in Conflict Management 3(3-0)
COM 565 - Communication Training in Organizations 3(3-0)

Elective Courses II (9-12 hours)
COM 195 - Intercultural Communication 3(3-0)
COM 264 - Organizational Communication 3(3-0)
COM 352 - Communication and Social Influence 3(3-0)
COM 362 - Gender Communication 3(3-0)
COM 369 - Health Communication 3(3-0)
COM 461 - Communication in Leadership 3(3-0)
COM 468 - Advanced Interpersonal Communication 3(3-0)
COM 523 - Dark Side of Communication 3(3-0)
COM 527 - Political Communication 3(3-0)
COM 562 - Family Communication 3(3-0)
COM 569 - Communication in the Classroom 3(3-0)

Total: 40 semester hours

Communication Minor
B.A.; B.A.A.; B.S. in B.A. degrees

Required Courses (16 hours)
COM 100 - Communication and Society 1(1-0)
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 six of which must be at the 400 or 500 level. (No more than 6 hours from COM 464, 490, and 495 can be counted toward the minor.)

Total: 25 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 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)

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
B.A., B.A.A., B.S. degrees

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 photojournalism major, and the on-line 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

Sean Baker, Doug Berry, Tim Boudreau, Valica Boudry, Lori Brost, Elina Erzikova, John K. Hartman, Dennis W. Jeffers, David London, Maria Marron, Ronald Marmarelli, Kent Miller, 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.
Advertising, News Editorial, or Public Relations

Concentrations:

Core Courses I (21 hours)
- JRN 102 - Introduction to Journalism 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 404 - Law of Mass Communication 3(3-0)
- JRN 500 - Current Issues in Mass Communication 3(3-0)

Core Courses II (3 hours)
Select one of the following:
- JRN 372 - International and Cross-cultural Mass Communication 3(3-0)
- JRN 380 - Racial Diversity: Mass Media’s Role 3(3-0)

Select from the following concentrations, or Photojournalism below:

Advertising Concentration:
- Required Courses (12 hours)
  - JRN 360 - Advertising Principles 3(3-0)
  - JRN 365 - Advertising Media 3(3-0)
  - JRN 465 - Advertising Copy and Design 3(3-0)
  - JRN 466 - Advertising Campaigns 3(3-0)

Elective (3 hours)
- An additional Journalism course, as approved by the advisor.

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)

Elective (3 hours)
- An additional Journalism course, as approved by the advisor.

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

Photojournalism Concentration:
- 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)

- 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)

Elective (3 hours)
- An additional Journalism course, as approved by the advisor.

Total: 39 semester hours

Photojournalism Major

B.A.; B.S. degrees

A photojournalism major requires 42 hours of journalism course work. The last 18 hours of journalism course work leading to a photojournalism 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 photojournalism major must consult with a journalism faculty advisor prior to registering for courses each semester to ensure orderly progress toward meeting these requirements.

- Required Courses I (15 hours)
  - JRN 102 - Introduction to Journalism 3(3-0)
  - JRN 202 - Writing for the Mass Media 3(3-0)
  - JRN 220 - Basic Media Photography 3(3-0)
  - JRN 340 - Introduction to Online Journalism 3(3-0)
  - JRN 404 - Law of Mass Communication 3(3-0)

- Required Courses II (3 hours)
  - Select one of the following:
    - JRN 372 - International and Cross-cultural Mass Communication 3(3-0)
    - JRN 380 - Racial Diversity: Mass Media’s Role 3(3-0)

- Required Courses III (21 hours)
  - 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)
  - JRN 423 - Online Visual Storytelling 3(3-0)
  - JRN 445 - Multimedia Reporting 3(3-0)
  - JRN 521 - Seminar in News Photography 3(3-0)
  - JRN course 300 level or above approved by advisor (3 hours)
  - OR
    - JRN 529 - Photojournalism Internship 1-4(Spec)

- Required Courses IV (3 hours)
  - Select one of the following:
    - JRN 520 - Independent Study in Photography 3(3-0)

OR

- JRN 529 - Photojournalism Internship 1-4(Spec)

- Required Courses V (9 hours)
  - ART 140 - Photography I: Introduction to Digital Photography 3(0-6)
  - ART 239 - Digital Imaging I 3(0-6)
  - ART 240 - Photography II: Digital Montage & Studio Lighting 3(0-6)

Total: 51 semester hours
Online Journalism Major

B.A.; B.S. degrees

An online journalism major requires 42 hours of journalism course work. The last 18 hours of journalism course work leading to an online 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. Online journalism majors must consult with a journalism faculty advisor prior to registering for courses each semester to ensure orderly progress toward meeting these requirements.

Required Courses I (15 hours)
- JRN 102 - Introduction to Journalism 3(3-0)
- JRN 202 - Writing for the Mass Media 3(3-0)
- JRN 220 - Basic Media Photography 3(3-0)
- JRN 340 - Introduction to Online Journalism 3(3-0)
- JRN 404 - Law of Mass Communication 3(3-0)

Required Courses II (3 hours)
Select one of the following:
- JRN 372 - International and Cross-cultural Mass Communication 3(3-0)
- JRN 380 - Racial Diversity: Mass Media’s Role 3(3-0)

Required Courses III (15 hours)
- JRN 203 - Information Gathering for the Mass Media 3(3-0)
- JRN 302 - Introduction to Graphics and Visual Communication 3(3-0)
- JRN 440 - Advanced Online Journalism 3(3-0)
- JRN 441 - Computer Assisted Reporting 3(3-0)
- JRN 445 - Multimedia Reporting 3(3-0)

Required Courses IV (3 hours)
Select one of the following:
- JRN 448 - Online Journalism Practicum 3(Spec)
- JRN 449 - Online Journalism Internship 3(Spec)

Required Courses V (6 hours)
Select two of the following:
- 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)

Total: 42 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 102 - Introduction to Journalism 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.
Music (MUS)
For information, please contact the director, 989-774-1945, Music 162

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.
Music Education Major:
Instrumental Option

**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**

**Music: Instrumental Minor**

**Required Courses I (18 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 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)
- MUS 431 - Instrumental Classroom and Rehearsal Methods 2(2-1)

**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 Ensemble 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 (0-4 hours)**
Courses selected must be at the 300 level or above.

**Total: 30 semester hours**

(continued)
Music Education Major: Choral Option

**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

**Music: Choral Minor**

**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

Music Education Major: General Music Option

**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.

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)

**Total: 30 semester hours**
**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)

MUS 141 - Vocal Techniques I 1(0-2)
MUS 142 - Vocal Techniques II 1(0-2)
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)

**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)

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)

**Total:** 40 semester hours

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**Music: General Music Minor**

**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 150 - Men’s Chorus 1-8(Spec)
MUS 152 - Women’s Chorus 1-8(Spec)
MUS 183 - Concert Choir 1-8(Spec)
MUS 185 - Orchestra I-8(Spec)
MUS 186 - Band I-8(Spec)
MUS 281 - Advanced Instrumental Ensemble I-8(Spec)
MUS 282 - Advanced Vocal Ensemble I-8(Spec)
MUS 284 - Techniques for the Singing Actor I-6(Spec)
MUS 285 - Percussion Ensemble I-8(Spec)
MUS 286 - Jazz Laboratory Band I-8(Spec)

**Secondary Applied Study (0-4 hours)**

- 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 I(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 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 302 - Contrapuntal Techniques 3(3-0)
- MUS 304 - Instrumentation and Scoring 3(2-2)
- MUS 311 - Historical Survey of Music III 3(3-0)

Music: Theory/Composition Major

Admission Requirements, Retention & Termination Standards

See the information at the beginning of this section.

Courses (32 hours)

Required Courses I (10 hours)

Applied Courses

- Recital (0)
- 2 semesters of MUS 158 (2 hours)
- 4 semesters of MUS 358 (8 hours)
- MUS 158 - Composition 1(4-Spec)
- MUS 358 - Composition 2-8(Spec)

Required Courses II (15 hours)

Theory Courses

- MUS 209 - Music Synthesis I 2(2-0)
- MUS 309 - Music Synthesis II 2(2-0)
- 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 III (6 hours)

Supportive Courses in Music

- MUS 147, 148, 247, 248, 249 and/or MUS 152 (6 hours).
- Specific courses determined by placement exam.

Required Courses IV (14 hours)

Supportive Course in Music

- Instrumental or Vocal Applied Study (4 hours)
- 8 semesters of ensemble (8 hours)
- MUS 280 - Introduction to Conducting 2(0-4)

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
Music: Orchestral Instruments Major

Admission Requirements, Retention & Termination Standards

See the information at the beginning of this section.

Core Courses (32 hours):
See Core Courses at the beginning of this section.

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 - Orchestra 1-8(Spec)
MUS 181 - Band 1-8(Spec)
MUS 281 - Advanced Instrumental Ensemble 1-8(Spec)

Required Courses II (4 hours)
Supportive Courses in Music

Note: MUS 147, 148, 247, 248, 249 and/or MUS 152. Specific courses determined by placement exam.

MUS 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(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)

Required Courses III (9 hours)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 314 - History of Symphonic Literature 3(3-0)
MUS 335 - Instrumental Pedagogy 2(2-0)
MUS 505 - Seminar In Analysis: Twentieth-Century Music 2-4(Spec)

Music Electives (8 hours)
Selected in consultation with an advisor.
Total: 89 semester hours

Music: Organ Major

Admission Requirements, Retention & Termination Standards

See the information at the beginning of this section.

Core Courses (32 hours):
See Core Courses at the beginning of this section.

Required Courses I (33 hours)
Major Area Performance Courses

• 4 semesters of MUS 151 (8 hours)
• 2 semesters of MUS 150, MUS 152 or MUS 360 (2 hours)
• 4 semesters of MUS 351 (16 hours)
• Junior Recital (0 hours), Senior Recital (0 hours)
• 7 semesters of MUS 180, MUS 181, MUS 182, MUS 183, MUS 185, MUS 186, MUS 281 OR MUS 282 (7 hours)

MUS 150 - Voice 1-12(Spec)
MUS 151 - Organ 1-12(Spec)
MUS 152 - Piano 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 281 - Advanced Instrumental Ensemble 1-8(Spec)
MUS 282 - Advanced Vocal Ensemble 1-8(Spec)
MUS 351 - Organ 1-20(Spec)
MUS 360 - Harpsichord 1-8(Spec)

Required Courses II (14 hours)
Supportive Courses in Music

MUS 189 - Introduction to Accompanying 1(0-2)
MUS 236 - Piano Pedagogy I 2(2-0)
MUS 249 - Functional Piano 1(0-2)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 316 - History and Literature of the Organ 2(2-0)
MUS 389 - Service Playing 2(2-0)
MUS 413 - History and Literature of Church Music 2(2-0)
MUS 540 - Organ Pedagogy Practicum 2(2-0)

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 hours)
Selected in consultation with an advisor.
Total: 89 semester hours

(continued)
Music: Piano Major

**Admission Requirements, Retention & Termination Standards**
See the information at the beginning of this section.

**Core Courses (32 hours):**
See Core Courses at the beginning of this section.

**Required Courses I (33 hours)**

*Major Area Performance Courses*
- 4 semesters of MUS 152 (8 hours)
- 2 semesters of MUS 150 Voice, MUS 151 Organ OR MUS 360 Harpsichord (2 hours)
- 4 semesters of MUS 352 (16 hours)
- Junior Recital (0 hours), Senior Recital (0 hours)
- 7 semesters of MUS 180, MUS 181, MUS 182, MUS 183, MUS 185, MUS 186, MUS 281 OR MUS 282 (7 hours)

MUS 150 - Voice 1-12(Spec)
MUS 151 - Organ 1-12(Spec)
MUS 152 - Piano 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 281 - Advanced Instrumental Ensemble 1-8(Spec)
MUS 282 - Advanced Vocal Ensemble 1-8(Spec)
MUS 352 - Piano 1-20(Spec)
MUS 360 - Harpsichord 1-8(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 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(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)

**Required Courses III (8 hours)**

*Supportive Courses in Music*
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:
- MUS 241 - Diction for Singers 2(1-2)
- MUS 339 - Piano Pedagogy Practicum 1(1-1)

**Music Electives (2-3 hours)**
Selected in consultation with an advisor.

Total: 89 semester hours

Music: Voice Major

**Admission Requirements, Retention & Termination Standards**
See the information at the beginning of this section.

**Core Courses (32 hours):**
See Core Courses at the beginning of this section.

**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 147 - Piano Class I 1(0-2)
MUS 148 - Piano Class II 1(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)

**Required Courses III (8 hours)**

*Supportive Courses in Music*
MUS 241 - Diction for Singers 2(1-2)
MUS 280 - Introduction to Conducting 2(0-4)
MUS 318 - Song 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/](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, 107, 108, 201, 202, 203, 204, 211, 212, 214, 248 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 Major

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 311 - 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

Music Minor

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 3(3-0)
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

Kathryn E. Koch, Ph.D., Interim Dean
Raymond Francis, Ed.D., Associate Dean
Renee Papelian, Director of Professional Education
Jeff Krebs, Director of Development
EHS 426, 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 human environmental studies—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, Instruct-Ional Material Center, Science/Mathematics/Technology Center, Center for Excellence in Education, Great Explorations in Math and Science Center, 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 989-774-1939 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 Leadership Department provides graduate students the opportunities to pursue Master’s degrees in School Principalship and General Education Administration, including emphases in higher education administration and student affairs, and charter school leadership. This department also offers a specialist degree and a doctoral degree in Educational Leadership. Human Environmental Studies offers graduate programs in Apparel Product Development & Merchandising Technology, 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: Early Childhood; Elementary Education: Classroom Teaching; Middle Level Education; Secondary Education; and Reading and Literacy K-12. The department also offers a Graduate Certificate in Educational Technology.
Counseling and Special Education (CED, SPE)

For information, please contact the chairperson, 989-774-3205, EHS 321

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.

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, EHS 421, 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, 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 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, EHS 421, 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, 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

The Faculty
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, EHS 421, 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)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</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>
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</tr>
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<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)

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</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

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Educational Leadership (EDL)

For information, please contact the chairperson, 989-774-3204, EHS 334

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, Michael B. Gilbert, Roger N. Grabinski, Anne Hornak, Daniel Kaczynski, Betty Kirby, Sarah Marshall, Regina Garza Mitchell, Meechai Orsuwan, Regina Umpstead, David E. Whale
Human Environmental Studies
(HEV, AMD, FNS, IND, HDF)
For information, please contact the chairperson 989-774-3218, 205 Wightman Hall

Why Study in Human Environmental Studies?
The Human Environmental Studies Department has a unique perspective providing an integration of knowledge and diverse areas of specialization. These areas include: human development and family studies, design and merchandising, and foods and nutrition. The areas focus on the interaction between humans and their interactions with the natural, constructed, and behavioral environments. The programs within human environmental studies prepare students for a variety of careers in apparel, merchandising and design, nutrition, dietetics, food service, commercial and residential interior design, early childhood education, life management education, gerontology, and family services.

Human Environmental Studies at CMU
Majors offered within the department of Human Environmental Studies include: Apparel Merchandising and Design, Child Development, Dietetics, Family Studies, Foodservice Administration, Interior Design, and Life Management Education. Minors offered include: Apparel Merchandising and Design, Child Development, Family Life and Human Sexuality, Gerontology, Nutrition, and Foodservice Administration. These majors and minors prepare students for career opportunities as well as preparation for advanced educational goals.

The department offers a Master of Science in Human Development and Family Studies, a Master of Science in Nutrition and Dietetics, and a Master of Science in Apparel Product Development and Merchandising. For more information about these programs consult the College of Graduate Studies Bulletin.

Transfer students seeking a major must complete a minimum of 12 credit hours at CMU. Transfer students seeking a minor must complete a minimum of 9 credit hours at CMU.

The Faculty

Apparel Merchandising and Design

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 36 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 core, 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 (36 hours)
AMD 141 - Apparel Design Analysis 3(3-0)
AMD 155 - Introduction to Textiles 3(2-2)
AMD 246 - Computer-Aided Design for Apparel 3(2-2)
AMD 252 - Dress and Culture 3(3-0)
AMD 256 - Introduction to Fashion Industry 3(3-0)
AMD 330 - Preprofessional Seminar in Apparel Merchandising and Design 2(2-0)
AMD 346 - Advanced CAD for Apparel 3(2-2)
AMD 355 - Textile Analysis 3(2-2)
AMD 401 - Internship in Apparel Merchandising and Design 4(Spec)
AMD 457 - Portfolio Techniques 3(3-0)
AMD 550 - Textiles and Apparel in a Global Economy 3(3-0)
AMD 560 - Apparel Product Development 3(2-2)

Select one of the following concentrations:
Apparel Merchandising Concentration (16 hours)
Required Courses (13 hours)
AMD 332 - Fashion Buying 3(2-2)
AMD 356 - Visual Merchandising 3(3-0)
AMD 358 - Multichannel Fashion Merchandising 3(3-0)
AMD 410 - Fashion Advertising and Promotion 3(3-0)
BIS 106/CPS 106 - Spreadsheet Concepts 1(1-0)

(continued)
Electives (3 hours)
Select one of the following:
- ACC 201 - Concepts of Financial Accounting 3(3-0)
- BLR 325/WST 325 - Women and the Law 3(3-0)
- MGT 320 - Human Resource Management 3(3-0)
- MGT 357 - Women in Management 3(3-0)
- MKT 340 - Personal Selling 3(3-0)

Total: 52 semester hours

Apparel Design Concentration (18 hours)

Required Courses (15 hours)
- AMD 140 - Introduction to Apparel Construction 3(2-2)
- AMD 240 - Advanced Apparel Construction 3(2-2)
- AMD 241 - Apparel Design: Illustration 3(1-3)
- AMD 345 - Apparel Design Methods 3(2-2)
- AMD 547 - Functional Apparel Design 3(2-2)

Electives (3 hours)
Select one art studio course OR:
- AMD 546 - Experimental CAD for Apparel 3(2-2)

Total: 54 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.

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)
- AMD 140 - Introduction to Apparel Construction 3(2-2)

Required Courses II (6 hours)
- AMD 141 - Apparel Design: Analysis 3(3-0)
- AMD 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

Foods and Nutrition

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. In order to sign the dietetics major, CMU and transfer students must have a minimum overall GPA of 2.5 after completing 45 credit hours or less and a minimum overall GPA of 2.7 after completing 46 credit hours or more.
2. Students must have a minimum program GPA of 2.7 in order to graduate with this major.
3. Students must receive a C or better in all FNS major courses in order to graduate from this major.
4. In order to enroll in an FNS major course, students must have achieved a C or better in the required major prerequisite course(s).
5. Upon receipt of the third C- or lower in any major course, including those outside FNS, students will not be allowed to complete the major.

Dietetics Core (42 hours)
- FNS 160 - Introduction to Foods 3(2-2)
- FNS 271 - Food and Culture in the United States 3(3-0)
- FNS 361 - Experimental Foods 3(2-2)
- FNS 363 - Food Safety and Sanitation 1(1-0)
- FNS 365 - Quantity Food Production 2(2-0)
- FNS 367 - Institutional Food Production Laboratory 1(0-2)
- FNS 370 - Nutrition 3(3-0)
- FNS 463 - Menu Planning: Design and Service 3(3-0)
- FNS 469 - Foodservice Systems Administration 3(3-0)
- FNS 471 - Medical Nutrition Therapy I 3(3-0)
- FNS 472 - Medical Nutrition Therapy II 3(3-0)
- FNS 473 - Advanced Nutrition 4(4-0)
- FNS 474 - Nutrition in the Life Cycle 3(3-0)
- FNS 570 - Nutritional Education 4(4-0)
- FNS 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 3(3-3)
- CHM 132 - Introduction to Chemistry II 3(3-3)

Total: 44-67 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)
- FNS 160 - Introduction to Foods 3(2-2)
- FNS 263 - Beverages In Foodservice 3(3-0)
- FNS 271 - Food and Culture in the United States 3(3-0)
- FNS 363 - Food Safety and Sanitation 1(1-0)
- FNS 365 - Quantity Food Production 2(2-0)
- FNS 366 - Quantity Food Production Laboratory 2(0-4)
- FNS 370 - Nutrition 3(3-0)
- FNS 463 - Menu Planning: Design and Service 3(3-0)
- FNS 469 - Foodservice Facilities Design 3(2-2)
- FNS 467 - Quantity Food Purchasing 3(3-0)
- FNS 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).
## Foodservice Administration Minor

**B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A.**

**Required Courses (20 hours)**
- FNS 160 - Introduction to Foods 3(2-2)
- FNS 271 - Food and Culture in the United States 3(3-0)
- FNS 357 - Nutrition and Performance 3(3-0)
- FNS 360 - Applied Nutrition 3(3-0)
- FNS 361 - Nutrition in the Life Cycle 3(3-0)
- FNS 370 - Nutrition and Professional Programs in Health- and Counseling-Related Fields 3(3-0)
- FNS 467 - Quantity Food Purchasing 3(3-0)
- FNS 468 - Foodservice Internship 3(Spec)
- HEV 490 - Independent Study 1-6(Spec)

**Total: 23 semester hours**

## Nutrition Minor

**B.A.; B.A.A.; B.F.A.; B.S. in B.A. degrees**

**Required Course (3 hours)**
- FNS 370 - Nutrition 3(3-0)

**Electives (19-21 hours)**
- Select from the following in consultation with an advisor:
  - FNS 160 - Introduction to Foods 3(2-2)
  - FNS 271 - Food and Culture in the United States 3(3-0)
  - FNS 357 - Nutrition and Performance 3(3-0)
  - FNS 360 - Applied Nutrition 3(3-0)
  - FNS 370 - Nutrition and Professional Programs in Health- and Counseling-Related Fields 3(3-0)
  - FNS 377 - Advanced Topics in Nutrition: Eating Disorders 3(3-0)
  - HEV 490 - Independent Study 1-6(Spec)
  - HSC 503 - Health Implications of Obesity 3(3-0)

**Total: 22-24 semester hours**

## Human Development and Family Studies

### 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 study in child development 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 child development major or minor in the B.S. in Education Degree 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 HDF 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. Student must receive a grade of C+ or better in HDF 419 (General Concentration) or HDF 409 (Early Childhood Concentration) in order to graduate with this major.

### Core Courses I (12 hours)

**Development and Professional Foundations**
- HDF 100 - Human Growth and Development: Lifespan 3(3-0)
- HDF 219 - HDFS Field Work 3(1-6)
- HDF 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
- HDF 308 - Human Growth and Development: Theory 3(3-0)

### Core Courses II (3 hours)

**Family, Diversity, and Developmental Context**
- Select one of the following:
  - HDF 211 - Marriage and Family Perspectives 3(3-0)
  - HDF 291 - Human Environmental Studies: Family Ecology 3(3-0)

### Core Courses III (3 hours)

**Family, Diversity, and Developmental Context**
- Select one of the following:
  - HDF 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
  - HDF 212 - The Family in Cultural Perspective 3(3-0)

### 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)

(continued)
Early Childhood Concentration

Required Courses I (7 hours)

- HDF 302 - Human Growth and Development: Infancy 3(3-0)
- HDF 303 - Human Growth and Development: Early Childhood 4(3-2)

Required Courses II (15 hours)

- HDF 402 - Human Growth and Development: Guidance for Young Children 4(Spec)
- HDF 403 - Human Growth and Development: Curriculum and Planning in Pre-Primary 3(3-0)
- HDF 409 - Human Growth and Development: Lead Teaching Experience 8(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 (HDF 100, EDU 280, or PSY 220) are required for authorization of this major.
3. HDF 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)
- HDF 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)
- HDF 302 - Human Growth and Development: Infancy 3(3-0)
- HDF 303 - Human Growth and Development: Early Childhood 4(3-2)
- HDF 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
- HDF 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)
- HDF 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
- HST 221/WST 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:

- HDF 211 - Marriage and Family Perspectives 3(3-0)
- HDF 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)
- ENB 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
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 Early Childhood (ZA) Endorsement to the student’s K-8 teaching certification. The ZA Endorsement is required for employment in Michigan Public School Preschool Programs. This minor is authorized by a designated advisor 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 (HDF 100, EDU 280, or PSY 220) are required for authorization in this minor.
3. HDF 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)
- HDF 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)
- HDF 302 - Human Growth and Development: Infancy 3(3-0)
- HDF 303 - Human Growth and Development: Early Childhood 4(3-2)
- HDF 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
- HDF 402 - Human Growth and Development: Guidance for Young Children 4(Spec)

Other Requirements (3 hours)
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)
- HDF 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)
- ENGL 381 - Children’s Literature 3(3-0)
- HDF 211 - Marriage and Family Perspectives 3(3-0)
- HDF 212 - The Family in Cultural Perspective 3(3-0)
- HDF 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 Preschool 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 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 HDF 419 in order to graduate with this major.

Core Courses I (25 hours)
- HDF 100 - Human Growth and Development: Lifespan 3(3-0)
- HDF 211 - Marriage and Family Perspectives 3(3-0)
- HDF 213/WST 213 - Introduction to Human Sexuality 3(3-0)
- HDF 291 - Human Environmental Studies: Family Ecology 3(3-0)
- HDF 307 - Human Growth and Development: Parent-Child Relations 3(3-0)
- HDF 315 - Family Management Theory 3(3-0)
- HDF 411 - Family Relations 3(3-0)
- HDF 418 - Family Development in Later Life 3(3-0)
- LIB 197 - Introduction to Library and Information Research 1(1-0)

Required Courses I (3 hours)
- Professional Foundations
  - HDF 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:
    - HDF 319 - HDFS Skills and Methods 3(3-0)
    - HDF 414 - Human Development and Family Studies Research Methods 3(3-0)
    - HDF 419 - HDFS Internship 1-12(Spec)
    - PSY 211 - Introduction to Psychological Statistics 3(3-0)
    - STA 282 - Introduction to Statistics 3(3-0)

Electives (3-6 hours)
Select additional hours from the above list or any from the following list.
- COM 562 - Family Communication 3(3-0)
- GRN 247 - Introduction to Gerontology 3(3-0)
- HDF 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
- HDF 212 - The Family in Cultural Perspective 3(3-0)
- HDF 302 - Human Growth and Development: Infancy 3(3-0)
- HDF 306 - Human Growth and Development: Adolescence 3(3-0)
- HDF 511 - Seminar in Human Sexuality 3(3-0)
- HDF 513 - Readings in Family 3(3-0)
- HDF 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)

(continued)
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 HDF 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

HDF 100 - Human Growth and Development: Lifespan 3(3-0)
HDF 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:
HDF 302 - Human Growth and Development: Infancy 3(3-0)
HDF 303 - Human Growth and Development: Early Childhood 4(3-2)
HDF 306 - Human Growth and Development: Adolescence 3(3-0)
HDF 418 - Family Development in Late Life 3(3-0)
HDF 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:
HDF 211 - Marriage and Family Perspectives 3(3-0)
HDF 291 - Human Environmental Studies: Family Ecology 3(3-0)
HDF 307 - Human Growth and Development: Parent-Child Relations 3(3-0)

Electives (6 hours)

To be selected with the approval of an advisor
COM 562 - Family Communication 3(3-0)
HDF 212 - The Family in Cultural Perspective 3(3-0)
HDF 306 - Human Growth and Development: Adolescence 3(3-0)
HDF 413 - Facilitating Discussion in Human Sexuality Groups 3(3-0)
HDF 511 - Seminar in Human Sexuality 3(3-0)
HDF 513 - Readings in the Family 3(3-0)
HDF 381 - Education for Family Life and Human Sexuality 3(3-0)
HDF 523 - AIDS Education 1(1-0)
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.
HEV 490 - Independent Study 1-6(Spec)
HEV 497 - Special Topics 1-15(Spec)
HSC 205 - Responding to Emergencies 2(1-2)
HSC 519 - Death Education and Suicide Prevention 3(3-0)
HST 221/WST 221 - Growing Up in America 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)
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

Interior Design

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 (IND 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: IND 155, IND 139, IND 238, IND 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 visual 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)

IET 357 - Residential Architectural Graphics 3(1-4)
IND 131 - Interior Design Studio I: Introduction 3(1-4)
IND 138 - Visual Communication for Interior Design 3(1-4)
IND 139 - Interior Design Drafting 3(2-2)
IND 155 - Introduction to Textiles 3(2-2)
IND 238 - Design History and Precedent 3(3-0)
IND 328 - Design History and Criticism 3(3-0)
IND 332 - Human Shelter and Environment 3(3-0)
IND 334 - Computer-Aided Design for Interiors 3(2-2)
IND 336 - Materials and Components of Interior Design 3(3-0)
IND 337 - Interior Design Studio II: Residential 3(1-4)
IND 338 - Internship Preparation for Interior Design 1(Spec)
IND 339 - Interior Design Studio III: Special User Groups 3(1-4)
IND 432 - Seminar in Interior Design 3(3-0)
IND 433 - Professional Practices in Interior Design 3(3-0)
IND 434 - Advanced CAD for Interiors 3(2-2)
IND 436 - Lighting and Other Mechanical Systems 3(2-2)
IND 437 - Interior Design Studio IV: Contract 3(1-4)
IND 438 - Interior Design Internship 2(Spec)
IND 439 - Interior Design Studio V: Senior Thesis 3(1-4)

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.

(continued)
Recreation, Parks, and Leisure Services Administration (RPL)

For information, please contact the chairperson, 989-774-3858, 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, Robert Dvorak, Al Ellard, Robert Frost, Suzanne Gareiss, Patricia Janes, Tim Otteman, Dean Pybus, Mary Lou Schilling, Rob Schumacker, Lori Stoudt, Lorie Tuma, 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 430 - Planning Recreation Programs and Events (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

B.A. degree in Community Leisure Services Administration does not require a minor, but does require a 30 credit internship.

B.S. and B.A.A. degrees require a minor chosen in consultation with an advisor and a 15 credit internship.

Required Professional Core Courses (51-66 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 210 - Recreation for Diverse Populations (3-3-0)
RPL 310 - Pre-Internship in Leisure Services (1-1-0)
RPL 320 - Internship in Recreation (1-30-Spec)
RPL 405 - Administration of Community Leisure Services (3-3-0)
RPL 420 - Planning and Facility Design for Leisure (3-3-0)
RPL 430 - Planning Recreation Programs and Events (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 218 - Teaching of Outdoor Skills (3-3-0)
RPL 346 - Recreation for Senior Citizens (3-3-0)
RPL 350 - Administration and Operations of Aquatic Facilities (3-3-0)
RPL 436 - Recreation Facility Operations (3-3-0)
RPL 440 - Special Event Administration (3-3-0)
RPL 470 - Park and Natural Resource Management (3-3-0)
RPL 499 - Independent Research in Leisure Services (1-3-Spec)
OR other RPL course chosen in consultation with advisor.

Total: 54-69 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 (3-2-2)
RPL 210 - Recreation for Diverse Populations (3-3-0)
RPL 310 - Pre-Internship in Leisure Services (1-1-0)
RPL 320 - Internship in Recreation (1-30-Spec)
RPL 358 - Foundations of Outdoor and Environmental Education (3-3-0)
RPL 470 - Park and Natural Resource 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

(continued)
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 in Recreation 1-30(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)

- HDF 100 - Human Growth and Development: Lifespan 3(3-0)
- PSY 220 - Developmental Psychology 3(3-0)

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.

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 318 - Field Course in Recreation Specialization 1-15(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.

Total: 54-69 semester hours
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 17 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 (17 hours)

- RPL 318 - Field Course in Recreation Specialization 1-15(Spec)
- FNS 160 - Introduction to Foods 3(2-2)
- HSA 350 - Lodging Operations 3(3-0)
- RPL 430 - Planning Recreation Programs and Events 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)
- PES 550 - Sport Fundraising 3(3-0)
- RPL/HSA 343 - Tourism 3(3-0)
- RPL 436 - Recreation Facility Operations 3(3-0)
- RPL 460 - Quality Service Systems in the Leisure Service Industry 3(3-0)
- RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
- RPL 545 - Marketing of Leisure Services 3(3-0)

Total: 23 credit hours

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 1-15(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, 989-774-3976, EHS 421; 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

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 advise 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

Advising

Students interested in teaching in the elementary and secondary grades may contact the College of Education and Human Service Center for Student Services (EHS 421) 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 downloaded from the Center for Student Services’ website at www.ehs.cmich.edu/css.

Application

Eligibility requirements for selection to the Teacher Education Program are discussed in the Bulletin under Standards Leading to Teacher Certification (see index for page number). 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 the Teacher Education Student Handbook, or downloadable from the Center for Student Services’ website (www.ehs.cmich.edu/css).

Student Teaching

For additional information, contact Larry Corbett, Director of Student Teaching, 989-774-4411.

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 Provisional 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 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 2.70 or higher, a 2.70 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 and 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

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 six 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 six 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. Admission requirements are detailed in the Teacher Education Student Handbook at 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. Admission requirements are detailed in the Teacher Education Student Handbook at 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, EHS 421. Admission requirements are detailed in the Teacher Education Student Handbook or at 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 - 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 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

Note: This minor may be used by students following the B.S. in Ed. Degree, provisional elementary or provisional secondary certification. It consists of 24 hours of course work in middle level education and related disciplines. Students must select two curriculum areas (subject to advisor approval) which are broad and multidisciplinary, and encompass the major areas within those fields.

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.

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:
EDU 290 - Technology in Education 3(1-4)
EDU 532 - Reading in the Content Areas 3(3-0)
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)
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

Christopher Ingersoll, Ph.D., Dean
Thomas Masterson, Ph.D., Associate Dean
HP 2217, 989-774-1850

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;
• Co-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, 989-774-1323, 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 (989-774-3471) and request advisement assistance.

The Faculty

Major
Communication Disorders Major
B.A.A.; B.S. degrees

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. Students will not be allowed to retake any course on the CDO major. 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 allowed to retake any course on the CDO major. Under extraordinary circumstances, students may request an exception to this policy through an appeal process.
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.
Required Courses I (37 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 431 - Audiologic Rehabilitation 3(3-0)
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)

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 538 - 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

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 130 - Normal Speech and Language Acquisition 3(3-0)
CDO 230 - Introduction to Speech, Language, and Hearing Disorders 3(3-0)
CDO 331 - Introduction to Audiology 3(3-0)
CDO 438 - Language Disorders in Special Education Populations 3(3-0)

Elective Courses (8-10 hours)
Chosen from the following:
ASL 101 - American Sign Language, Level I 3(3-0)
CDO 278 - Descriptive Phonetics 2(2-0)
CDO 330 - Language Development 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 431 - Audiologic Rehabilitation 3(3-0)
CDO 463 - Introduction to Acoustic Phonetics 2(2-0)
CDO 490 - Independent Study 1-4(Spec)
CDO 544 - Communication Disorders in the Aged 3(3-0)

Total: 20-22 semester hours
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 585 - 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

Admission into the major is competitive and limited. Interested students are encouraged to obtain advising and admission information early during pre-admission coursework by contacting the School of Health Sciences Office. In order to apply for formal admission into the major, applicants must meet the following criteria:
1. Complete a minimum of 36 semester hours of coursework with a minimum GPA of 2.5.
2. Complete CHM 120 and CHM 127 (or CHM 131 and CHM 132), BIO 101 (or BIO 110), HSC 214, and HSC 215, with no grade lower than C in those courses.
3. Satisfy the university Mathematics Competency requirement as described under the General Education Requirements section of the Bulletin.
4. Meet specific program Technical Standards.

Once admitted into the program students must continue to meet specific program Technical Standards as well as the following criteria:
1. Maintain an overall GPA of at least 2.5.
2. Achieve a grade of C (2.0) or better for each graded HSC course on the major.
3. Maintain established academic and professional standards.

**Required Courses I (25 hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BIO 101</td>
<td>General Biology</td>
<td>3(2-2)</td>
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<tr>
<td>CHM 120</td>
<td>Survey of Chemistry (4-4-0)</td>
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<tr>
<td>CHM 127</td>
<td>Introductory Chemistry Laboratory 1(0-2)</td>
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<td>Responding to Emergencies 2(1-2)</td>
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<tr>
<td>HSC 214</td>
<td>Human Anatomy 4(3-3)</td>
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<tr>
<td>HSC 215</td>
<td>Human Physiology 4(3-2)</td>
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<tr>
<td>PED 189</td>
<td>Weight Training and Conditioning 2(Spec)</td>
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<tr>
<td>PES 186/PED 186</td>
<td>Physical Fitness for Life 2(2-0)</td>
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<tr>
<td>PSY 100</td>
<td>Introduction to Psychology 3(3-0)</td>
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**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**

**Required Courses I (25 hours)**

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<td>PSY 100</td>
<td>Introduction to Psychology 3(3-0)</td>
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**Electives (12 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**

**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 FNS 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 (45 hours)**

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<td></td>
</tr>
<tr>
<td>HSC 503</td>
<td>Health Implications of Obesity 3(3-0)</td>
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<tr>
<td>HSC 547</td>
<td>Health Risk Identification and Management 3(3-0)</td>
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<tr>
<td>HSC 550</td>
<td>Stress Test Administration 3(2-2)</td>
<td></td>
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<tr>
<td>HSC 551</td>
<td>Stress Testing Interpretation 3(3-0)</td>
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</table>

**Electives (12 hours)**

Chosen with approval of advisor.

**Total: 63 semester hours**

(continued)
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: 52 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.

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS
Students intending to minor in Exercise Science must meet the following requirements:
1. Meet program specific Technical Standards (http://www.cheBOUNDaries.cmich.edu/hsc/ehsd);
2. Achieve a grade of C (2.0), or better, for each graded HSC course on the minor;
   Maintain an overall GPA of 2.5, and a GPA of 2.8 for all classes on the minor.

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:
- FNS 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 course on the minor.

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)
Health Sciences

Electives (2-3 hours)
Choose 2-3 credit hours from the following list in consultation with an advisor:
FNS 370 - Nutrition 3(3-0)
HSC 235 - Psychoactive Drugs 3(3-0)
HSC 343 - Health Education in the Elementary School 3(3-0)
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 - 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)
HDF 411 - Family Relations 3(3-0)
FNS 370 - Nutrition 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

School of Rehabilitation and Medical Sciences
(PHA, PTH)
For information, please contact the Physician Assistant Program, HPB 1222, 989-774-2478
or the Physical Therapy Program, HPB 1232, 989-774-2347

Programs at CMU
The School of Rehabilitation and Medical Science includes the graduate programs in Physical Therapy and Physician Assistant Studies. The graduate program in Physical Therapy is a three-year professional program that offers a Doctor of Physical Therapy in Physical Therapy. The Physician Assistant Studies program is a 27-month program that offers a Master of Science degree.
For a detailed description of admissions requirements, prerequisite coursework and the professional curriculum for either of these programs, please consult the Bulletin of the College of Graduate Studies. See also the Pre-Professional Studies section in the Undergraduate Bulletin for Pre-Physical Therapy and Pre-Physician Assistant programs or visit www.chp.cmich.edu.

The Faculty
Physical Education and Sport
(ATER, PES, PED)

For information, please contact the chairperson, 989-774-6658, 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
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.
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)
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 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 499 - Internship in Sport Management 2-12(Spec)
PES 550 - Sport Fundraising 3(3-0)
PES 564 - Sport Governance: Ethics, Morals, and Values 3(3-0)

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.

Physical Education and Sport

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 web site 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

(continued)
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.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)
- HSC 106 - Healthy Lifestyles 3(3-0)
- HSC 214 - Human Anatomy 4(3-3)
- HSC 215 - Human Physiology 4(3-2)
- PES 115 - Fundamental Motor Skills 2(2-0)

Note: Students must also achieve a C or better in the following University Program courses:
- HDF 100 (3) OR PSY 100 (3);
- CHM 120 (4), 127 (1) OR CHM 131 (4)

Required Courses II (39 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 I(Spec)
- ATR 320 - Athletic Training Clinical II 1(Spec)
- ATR 321 - Reconditioning Principles in Athletic Training 1(Spec)
- ATR 322 - Athletic Training Assessment I 3(2-2)
- ATR 323 - Athletic Training Therapeutics II 3(2-2)
- ATR 324 - Athletic Training Therapeutics I 3(2-2)
- AT 325 - 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)
- FNS 375 - Nutrition and Performance 3(3-0)
- HSC 216 - Biomechanics and Kinesiology 3(2-2)
- HSC 308/PES 308 - Work Physiology 3(3-0)
- HSC 411 - Pathophysiology 3(3-0)
- PES 478 - Research for the Health Professions 2(2-0)

Required Courses III (3 hours)

Internship Phase

Select one of the following in consultation with your advisor:
- ATR 481 - Athletic Training Practicum 3(Spec)
- ATR 482 - Athletic Training Internship 12(Spec)

Total: 66-75 semester hours

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:
   a. have an overall GPA of 2.7;
   b. have received a grade of C+ or better in PES 315, PES 386 and PES 415;
   c. 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.
Physical Education and Sport 227

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(0-2)
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(0-2)
PES 415 - Planning, Teaching, and Assessing: Practical Applications 3(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)

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)
Select from below in consultation with departmental advisor

Electives I
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)

Note: BLR 202 may also be used to satisfy a University Program requirement.

Electives II
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: 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 department 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)

(continued)
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)
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)

Electives (0-2 hours)
Selected from above, or from the following to complete a minimum of 12 hours for the endorsement:
PES 304 - Youth Sports 2(2-0)
PES 401 - Fundamentals of Motor Learning 3(3-0)

Total: 12 semester hours
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, 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 lifelong 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.

(continued)
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, and Social 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 initiations, 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.
**English Language and Literature (ENG, ELI)**

**For information, please contact the chairperson, 989-774-3171, 215 Anspach Hall**

**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 ELI 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, Jeffrey Bean, Ari Berk, William Brevda, Elizabeth Brockman, MaryAnn Crawford, John S. Dinan, Maureen Eke, Robert Fanning, Mark Freed, Pam Gates, Susan Griffith, Rose Gubele, Desmond Harding, Janice Hartwick-Dressel, Cathy Hicks-Kennard, Troy Hicks, Stephen C. Holder, Melinda Kreth, Kristen McDermott, Gretchen Papazian, Daniel Patterson, John R. Pfeiffer, Ronald Primeau, Matt Roberson, Susan Schiller, William Spruiell, Susan Stan, Susan Steffel, Marcy Taylor, William Wandless, Jeffrey Weinstock

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**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, ELI 198, ELI 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 and Middle Schools 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)

(continued)
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 and Middle Schools 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 Elective I (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 311 - Teaching Literature in the Secondary School 3(3-0)
ENG 319 - Teaching Composition in the Secondary School 4(3-1)
ENG 349 - Shakespeare 3(3-0)
ENG 371 - Pedagogic Grammar 2(2-0)
ENG 580 - Literature for Young Adults 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 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)
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 (9 hours)
ENG 175 - The Nature of Language 3(3-0)
ENG 234 - Introduction to Literary Analysis 3(3-0)
ENG 349 - Shakespeare 3(3-0)

Required Courses I (12 hours)
ENG 311 - Teaching Literature in the Secondary School 3(3-0)
ENG 319 - Teaching Composition in the Secondary School 4(3-1)
ENG 371 - Pedagogic Grammar 2(2-0)
ENG 580/LMT 580 - Literature for Young Adults 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 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)

Total: 27 semester hours

English Major
B.A.; B.S. Degrees

See the General statements that apply to English majors and minors at the beginning of this section.

Core Courses I (9 hours)
ENG 234 - Introduction to Literary Analysis 3(3-0)
ENG 349 - Shakespeare 3(3-0)
ENG 460 - Senior Seminar: Current Issues in English 3(3-0)

Core Courses II (3 hours)
AND one of the following:
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)

Core Courses III (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)
ENG 253 - American Literature: Romantic Period 3(3-0)
ENG 254 - American Literature: Realistic Period 3(3-0)
ENG 255 - American Literature: Modern Period 3(3-0)
ENG 256 - American Literature: Colonial and Early National Periods 3(3-0)
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 (12 hours)
Select 12 hours of ENG courses.

Creative Writing Concentration

Required Courses I (3 hours)
One course chosen from:
ENG 321 - Modern 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 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 Courses III (3 hours)
ENG 294 - Introduction to Creative Writing 3(3-0)
## Required Courses IV (9 hours)

Students may focus in poetry, prose, or both by selecting 9 hours from among the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 391</td>
<td>Creative Writing: Fiction</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 392</td>
<td>Creative Writing: Poetry</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 491</td>
<td>Advanced Fiction Writing</td>
<td>3-6(3-0)</td>
</tr>
<tr>
<td>ENG 492</td>
<td>Advanced Poetry Writing</td>
<td>3-6(3-0)</td>
</tr>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 321</td>
<td>20th Century British and American Poetry</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 332</td>
<td>Contemporary Literature and Thought</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 333</td>
<td>Literatures of Non-Western Cultures</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 336</td>
<td>Early Modern English Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 339</td>
<td>Victorian Literature and Thought</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 340</td>
<td>Modern British Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 351</td>
<td>American Literature: Colonial and Early National Periods</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 352</td>
<td>American Literature: Romantic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 353</td>
<td>American Literature: Realistic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 354</td>
<td>American Literature: Modern Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 362</td>
<td>Literature of the Medieval World</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 455</td>
<td>The American Novel</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses II (3 hours)

One course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 345</td>
<td>Studies in Authors</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 435</td>
<td>Studies in Texts</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses III (12 hours)

Select from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 251</td>
<td>American Literature: Colonial Through the Romantic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 252</td>
<td>American Literature: Realistic Period to the Present</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 256</td>
<td>Literature of the Medieval World</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 325</td>
<td>Masterpieces of Ancient Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 330</td>
<td>Mythological Backgrounds of Western Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 332</td>
<td>Contemporary Literature and Thought</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 333</td>
<td>Literatures of Non-Western Cultures</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 335</td>
<td>The Bible as Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 336</td>
<td>Early Modern English Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 339</td>
<td>Victorian Literature and Thought</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 340</td>
<td>Modern British Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 351</td>
<td>American Literature: Colonial and Early National Periods</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 352</td>
<td>American Literature: Romantic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 353</td>
<td>American Literature: Realistic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 354</td>
<td>American Literature: Modern Period</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

**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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 234</td>
<td>Introduction to Literary Analysis</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 349</td>
<td>Shakespeare</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses II (3 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 175</td>
<td>The Nature of Language</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 271</td>
<td>Modern Grammar</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 375</td>
<td>Introduction to Linguistics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 379</td>
<td>History and Development of the English Language</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 545</td>
<td>Chaucer</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 570</td>
<td>Old English</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses III (6 hours)

Two of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 235</td>
<td>English Literature: Beginning to Romantic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 236</td>
<td>English Literature: Romantic Period to Present</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 251</td>
<td>American Literature: Colonial Through the Romantic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 252</td>
<td>American Literature: Realistic Period to the Present</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 261</td>
<td>Masterpieces of Ancient Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 262</td>
<td>Masterpieces of European Literature</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses IV (3 hours)

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 332</td>
<td>Contemporary Literature and Thought</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 336</td>
<td>Early Modern English Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 339</td>
<td>Victorian Literature and Thought</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 340</td>
<td>Modern British Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 351</td>
<td>American Literature: Colonial and Early National Periods</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 352</td>
<td>American Literature: Romantic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 353</td>
<td>American Literature: Realistic Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 354</td>
<td>American Literature: Modern Period</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 355</td>
<td>Literature of the Medieval World</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 439</td>
<td>English Romantic Poetry and Prose</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 441</td>
<td>Contemporary English Prose</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 454</td>
<td>Contemporary American Prose</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 561</td>
<td>European Romanticism</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### 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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 175</td>
<td>The Nature of Language</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 375</td>
<td>Introduction to Linguistics</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 571</td>
<td>Teaching of English to Speakers of Other Languages</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 574</td>
<td>TESOL Materials, Assessment, Curriculum</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 577</td>
<td>Introduction to Second Language Acquisition</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses II (3 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 365</td>
<td>The Bible as Literature</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 561</td>
<td>European Romanticism</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Required Courses III (6 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 256</td>
<td>Literature of the Medieval World</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 439</td>
<td>English Romantic Poetry and Prose</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 441</td>
<td>Contemporary English Prose</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 454</td>
<td>Contemporary American Prose</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>ENG 561</td>
<td>European Romanticism</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

### Electives (6 hours)

Choose 6 hours of ENG courses.

**Total:** 24 semester hours
Required Courses II (3 hours)
EDU 513 - Foundations of Bilingual Bicultural Education 3(3-0)
ENG 578 - Applied Sociolinguistics 3(3-0)

Electives I (3 hours)
Select one of the following:
CDO 130 - Normal Speech and Language Acquisition 3(3-0)
ENG 573 - Linguistics and Reading 3(3-0)

Electives II (3 hours)
Select one of the following:
COM 195 - Intercultural Communication 3(3-0)
EDU 514 - Methods and Materials for Bilingual Bicultural Education 3(3-0)
ENG 576 - Fundamental Issues in Language 3(3-0)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Total: 24 semester hours

Foreign Languages, Literatures, and Cultures
(FLN, FRN, GER, SPN, CHN, GRK, JPN, LAT, OJB, RUS)

For information, please contact the chairperson, 989-774-3786, 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: Anderson, Brookes, Palka, Ransom; for German: Jones, Lein, Richter; for Japanese: Richardson; for Spanish: 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 Francaises; in Annecy at the Institut Francais; 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.

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 Pontifica 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; in Costa Rica: at Santa Ana Conversa at San Jose Universidad Veritas.

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
Kathleen Anderson, Christine Brookes, Taryn Corrigan, Cynthia Espinosa, Mary Gillingham, Luz Marcela Hurtado, Mary-Garland Jackson, James Jones, Susan Knight, Krzysztof Kulawik, Janet D. Lein, Lorrie Murray, Keith Palka, Rafael Ponce-Cordero, Amy Ransom, Alejandra Rengifo, Norma H. Richardson, Daniela Richter, Daniela Teodorescu, Cristen Vernon
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 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 French must earn at least nine credit hours in their major at CMU; those minorning 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.

**French Major**

**B.S. in Ed., Provisional Elementary or Secondary Certification**

At least 34 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 (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:** 34-38 semester hours

**With additional requirements for K-12 certification (4-5 hours):**

**Total:** 38-43 semester hours
French Major

B.A.; B.S. degrees

At least 30 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 (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 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: 30-33 semester hours

French Major

Professional French Concentration

B.A.; B.S. degrees

At least 30 hours at the 300 level or above. The French Major: Professional French Concentration is designed for students of French who expect to use their French as an adjunct skill in their professional life outside academe. Ordinarily this will be students of business, but it also includes students planning to enter professions as wide-ranging as government work, journalism, the health professions, apparel design and merchandising, and others. Students enrolled in the program are required to spend a full semester abroad, during which time they will complete an internship in an appropriate and approved professional setting where French is the language of work.

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)
Two courses from the following, to be selected in consultation with a French advisor:
FRN 320 - French Civilization 3(3-0)
FRN 321 - France Today 3(3-0)
FRN 335 - French for Business 3(3-0)
FRN 420 - Literature and Culture of Quebec 3(3-0)

Required Courses II (12 hours)
Completion of this concentration requires one semester of study abroad during which the student will enroll for 12 credits (6 hours each of FRN 310 and FRN 410). The study abroad experience includes participation in an internship.
FRN 310 - Study Abroad 1-18(Spec)
FRN 410 - Study Abroad 1-12(Spec)

Electives (3 hours)
Select 3 hours at the 300 level or above in consultation with an advisor.

Total: 30 semester hours

French Minor

B.S. in Ed., Provisional Elementary Certification

At least 25 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)
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 courses in French and Francophone culture and/or literature from:
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)
Select 3 hours at the 300 level or above.

Total: 25-28 semester hours

Required Courses III (4 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)

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 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 403 - French Literature of the Middle Ages and Renaissance 3(3-0)
FRN 406 - French Literature of the Eighteenth Century 3(3-0)
FRN 406 - French Literature of the Nineteenth Century 3(3-0)
FRN 407 - French Literature of the Twentieth Century 3(3-0)
FRN 409 - French Literature of the Middle Ages and Renaissance 3(3-0)
FRN 404 - French Literature of the Seventeenth Century 3(3-0)
FRN 407 - French Literature of the Eighteenth Century 3(3-0)
FRN 407 - French Literature of the Nineteenth Century 3(3-0)
FRN 407 - 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: 21-24 semester hours**

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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** majoring 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 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 421 - Foreign Language in Elementary Schools 1(1-0)
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

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.

Electives (6 hours)
Choose electives at 300 level or above.

Total 30-33 semester hours

German Minor

B.A.; B.S. degree

At least 20 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 (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 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 - 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.

Electives (6 hours)
Choose electives at 300 level or above.

Total 30-33 semester hours
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 - 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.

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 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 (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 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.

Required Courses III (3 hours)
Required Course for B.S. in Ed. Degree
GER 411 - Practicum in Teaching German 3(2-1)

Electives (3 hours)
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 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 (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 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 1-12(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)

Other Requirements II (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)
- SPN 421 - Foreign Language in Elementary Schools 1(1-0)
- SPN 422 - Practicum: Elementary 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 1-12(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)

(continued)
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.

Total: 30-33 semester hours

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 377 - Culture and Civilization of Latin America 3(3-0)
- SPN 376 - Culture and Civilization of Spain 3(3-0)
- SPN 341 - Advanced Spanish Conversation 3(3-0)
- SPN 331 - Advanced Grammar and Composition 3(3-0)

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 III (4 hours)
- SPN 411 - Practicum in Teaching Spanish 3(2-1)
- SPN 421 - Foreign Language in Elementary Schools 1(1-0)

Total: 25-28 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 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)
- 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 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.

Total: 21-24 semester hours

Spanish Minor
B.S. in Ed., Provisional Elementary Certification
At least 25 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)
- 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 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)
- SPN 411 - Practicum in Teaching Spanish 3(2-1)

Total: 24-27 semester hours
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. 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 unspecifed 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 486 - 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 229 - American Business: A History 3(3-0)
HST 312 - American Military Experience 3(3-0)
HST 315 - The Vietnam War 3(3-0)
HST 319 - The United States since World War II 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 322 - Westward Movement in America 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 - Women in America 3(3-0)
HST 330 - U.S. Constitutional History 3(3-0)
HST 333 - History of Michigan 3(3-0)
HST 335 - History of the Rock and Roll Era 3(3-0)
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 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 - History of Native Americans 3(3-0)
HST 524 - African-American History to 1915 3(3-0)
HST 525 - African-Americans in Twentieth Century America 3(3-0)
HST 526 - Women in America 3(3-0)
HST 530 - U.S. Constitutional History 3(3-0)
HST 533 - History of Michigan 3(3-0)
HST 535 - History of the Rock and Roll Era 3(3-0)
HST 551 - Colonial British America 3(3-0)
HST 552 - The Industrialization of America 3(3-0)
HST 553 - Michigan History Studies 1-3(Spec)
HST 556 - 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 101 - The Development of Western Civilization 3(3-0)
HST 102 - Twentieth Century: Western World Issues 3(3-0)
HST 200 - The Medieval Civilization 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)

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 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)

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 236 - 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 369 - 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 236, 237, AND 369 count for either non-Western or pre-Modern. No course, however, can fill requirements in more than one area.

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 582 - 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.

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.
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)
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, 989-774-3049, 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
LTC Aaron Kalloch, 1LT Tierney Williams, MAJ William Humes, SFC Clifford Ellis, CPT Ryan Finley, 1LT Rodney Williams, MSG Joe Postler, SFC John Claybaugh, SFC Christian Hamlett

Career Options
Your experience in the Military 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.

• 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.
• 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 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 (LTC) 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 $3,150 to $20,700 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. Students have the option of using an ROTC scholarship towards fees or room and board costs, on and off campus.

- Incoming freshmen may compete for four-year scholarships worth $13,350 per year, which provide tuition, fees, book allowance and monthly spending money, by applying online 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 $7,236 per year (see below).
- Students already on campus may compete for two-, three-, and four-year scholarships worth $13,350 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 $20,700 per year, and guaranteed duty in the Reserves.
- 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

CMU established six room and board scholarships in 1993. These are competitive awards given annually to both high school seniors winning four-year ROTC Scholarships and current students.

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 251 - 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, 989-774-3444, 102 Anspach Hall; http://www.chsbs.cmich.edu/Philosophy&Religion

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 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

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 490 - Senior Seminar 3(3-0)

**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 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.

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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

**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)

**Required Courses II (3 hours)**  
*Applied Value Theory*
  
Select from the following:  
- PHL 318 - Business Ethics 3(3-0)  
- PHL 480 - Philosophy of the Arts 3(3-0)  
- PHL 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)

- **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**

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**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**

**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

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. A minimum of 15 hours of PSC course work must be at the 300 level or above, with at least one PSC 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.

Courses taken on a Credit/No Credit basis may not be counted toward political science majors and political science minors. Majors and minors in political science should enroll in PSC 105 as freshmen (see course description). Transfer students majoring in political science will be expected to take at least 15 hours of coursework in the department; transfer minors, 12 hours.

The student is required to take a minimum of three hours in four of the following five fields:

Field I: American National Political Institutions and Processes;
Field II: American State and Local Government, Public Administration and Policy;
Field III: International Relations;
Field IV: Comparative Politics;
Field V: Political Theory.

Note: Field II is not applicable to the International Relations/Comparative Politics Concentration.

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 concentrations:

Political Science Major: General Concentration

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)
Select one 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 251 - 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 - Public Sector Information Technology Management 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 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.

Total: 33 semester hours

Note: A minimum of 15 hours of PSC course work must be at the 300 level or above, with at least one PSC course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement.
Political Science Major: 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)

Field I (6 hours)

American National Political Institutions and Processes
Select two of the following 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)

Field II (3-6 hours)

International Relations
Select from the following courses:
PSC 151 - The U.S. and the World 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)
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.

Field III (3-6 hours)

Comparative Politics
Select from the following 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.

Field IV (3-6 hours)

Political Theory
Select one of the following courses:
PSC 275 - Great Political Thinkers 3(3-0)
PSC 375 - Socialism, Fascism, and Liberalism 3(3-0)

Total: 33 semester hours

Note: A minimum of 15 hours of PSC course work must be at the 300 level or above, with at least one PSC course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement.

Political Science Major: Public Administration Concentration

Required Courses (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)

Other Requirements (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 (0-3 hours)

American National Political Institutions and Processes
Select from the following courses:
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 (0-3 hours)

American State and Local Government, Public Administration and Policy
Select from the following courses:
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 - Public Sector Information Technology Management 3(3-0)

Note: If you select 3 from this group, you do not need to select 3 from the American National Political Institutions and Processes courses above.

(continued)
Field III (3 hours)

International Relations

Select one of the following courses:

- 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 (3 hours)

Comparative Politics

Select one of the following courses:

- 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)

Political Theory

Select one of the following courses:

- 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 PSC course work must be at the 300 level or above, with at least one PSC 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

A political science minor consists of 20 hours. Courses taken on a Credit/No Credit basis may not be counted toward political science majors and political science minors. Majors and minors in political science should enroll in PSC 105 as freshmen (see course description). Transfer students majoring in political science will be expected to take at least 15 hours of coursework in the department; transfer minors, 12 hours.

Required Course (3 hours)

PSC 105 - Introduction to American Government and Politics 3(3-0)

Other Requirements (12 hours)

Select one 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 Politics 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 - Public Sector Information Technology Management 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 280 - Introduction to Empirical Methods of Political Research 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)

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
A public administration minor consists of 21 hours.

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)

Other Requirements (6 hours)
Select two of the following courses:
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 - Public Sector Information Technology Management 3(3-0)

Total: 21 semester hours

Public Affairs Minor
This is an interdepartmental minor. Please check the index for the page number.
Psychology (PSY)

For information, please contact the chairperson, 989-774-6461, 101 Sloan Hall
For inclement weather class cancellations, call 989-774-7500

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 awareness 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 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. Additional information available for download includes guides regarding additional opportunities at CMU and career possibilities in psychology.

Advising. If you are considering a major in psychology, you should investigate the tutorial explaining the requirements and advantages of each of the two majors at the website http://www.chsbs.cmich.edu/psychologyadvising/. After completing the tutorial, you will be almost ready to talk to an advisor. Before that, be sure to download and read the advising handbook: http://www.chsbs.cmich.edu/psychology/downloads/undergraduate/Handbook%202008-2009.pdf. If you are considering a minor in psychology, be sure to download and read the advising handbook from the site shown above. When you are ready to sign a major or a minor, come to the Psychology Department office and an advisor will be assigned. Make an appointment with your advisor. When you come to your appointment, be sure to bring your CMU Bulletin and your personal educational record.

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, 497, 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 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, 497, 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.

Minors

Psychology Minor

B.A.; B.A.A.; B.F.A.; B.S.; 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 working together 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, 497, 498, 500, 501, 502. Further, not more than 3 hours may be counted from any one unspecified content course.
**Why Study Sociology, Anthropology, Social Work, or Social and Criminal Justice?**

Sociology is the study of human groups, institutions, and societies. It considers the behavior and interaction of people in groups, analyzing both the influence of group activities on individual members, and the members’ influence on other individuals and groups. Students interested in the structure and conflicts of societies major in sociology, and the major provides valuable background for many professions, social work, social and criminal justice, and professional work with youth among them.

Anthropology is the study of people, their cultures, customs, languages, and origins. Students with an anthropological perspective gain an evolutionary, comparative, and comprehensive view of their own society and of other societies in our world.

Social Work is the study of the person(s) and the environment from the generalist perspective. The curriculum addresses practice in various fields of social work with individuals, families, groups, organizations, neighborhoods and communities.

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**Sociology, Anthropology, Social Work and Social and Criminal Justice at CMU**

The Department of Sociology, Anthropology, and Social Work endeavors to fulfill four general objectives for undergraduate students:

1. To render modern social life more intelligible to the student.
2. To contribute to the student’s understanding of the unity and diversity of human beings through the study of evolution, culture, societal development, and the contemporary cultural patterns of many areas of the world.
3. To enhance the professional effectiveness of the student entering occupations in which knowledge of human relationships is relevant.
4. To prepare the student who seeks graduate education in sociology, anthropology, social work or social and criminal justice.

The department offers a major and minor in sociology, a major and minor in anthropology, a CSWE accredited major in social work, a concentration in social and criminal justice, a minor in Youth Studies, a minor in American ethnic studies, and a program of study leading to the master’s degree in sociology. The latter program is described in the Bulletin, College of Graduate Studies.

Sociology and Anthropology majors apply on the B.A. and B.S. degrees; minors apply on most degrees. Social Work majors apply on the B.S.W. degree; no minors are offered in Social Work. Consult the degree section of the Bulletin for information on specific degree requirements.

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**The Faculty**

Mensah Adinkrah, Brigitte Bechtold, Tracy Brown, Rachel Caspari, Sergio Chavez, Joseph W. DeBolt, Susan Grettenberger, Angela Haddad, Nancy Herman-Kinney, David Kinney, Athena McLean, Harry E. Mika, Gil Richard Musolf, Katherine Rosier, Mary Scheuer Senter, Brian Smith, Blaine W. Stevenson, Larry L. Tiff, Jean Toner, Carmen White

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**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.

**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 514 - Sociology of Health and Illness 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)

*SOC 399 may be applied only when the special topic pertains to a social criminal justice related area.

**Total:** 33 semester hours

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**Sociology Major - Social and Criminal Justice Concentration**

*B.A.; B.S. degrees*

**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 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.
4. No more than 15 hours of coursework can transfer to the sociology major with a social and criminal justice concentration from another institution.
5. Students must earn a grade of C (2.0) or better in SOC 200 in order to continue with SOC 350. SOC 200 cannot be taken on a Credit/No Credit basis.

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**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)**

Select one of the following:

- 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

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**Sociology Major: Youth Studies Concentration**

*B.A.; B.S. degrees*

**Required Courses I (9 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)

**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 (15 hours)**

Select one of the following:

- SOC 215 - Youth, Deviance, and Institutions 3(3-0)
- SOC 411 - The Family 3(3-0)
- SOC 412 - Sociology of Adolescence 3(3-0)
- SOC 422/SWK 422 - Youth Welfare 3(3-0)
- SOC 425 - Sociology of Childhood 3(3-0)

**Required Courses IV (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

(continued)
Required Courses VI (3 hours)
One Development Course from outside the department, selected from:
HDF 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
HDF 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)

Capstone Experience (3 hours)
SOC 530 - Capstone Experience in Youth Studies 3(3-0)

Total: 39 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)

Electives II (8 hours)
For students who are Social Work majors, up to three hours in Anthropology (ANT) may be counted toward a minor in Sociology. For all other students, up to three hours in Anthropology (ANT) or Social Work (SWK) may be counted toward a minor in Sociology. Students may be exempted from SOC 300 or 301 by the advisor, upon documentation of completion of a comprehensive course in the student’s major. Such exemptions shall not reduce the 23 hour requirement.

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.

Required Courses I (7 hours)
ANT 170 - Cultural Anthropology 3(3-0)
ANT 171 - Human Origins: Introduction to Physical Anthropology 3(3-0)
ANT 173 - Laboratory in Physical Anthropology 1(0-2)

Required Courses II (3 hours)
Select one of the following:
ANT 174 - Introduction to Prehistoric Archaeology: From Stone Age to Civilization 3(3-0)
ANT 175 - Archaeology of the Americas 3(3-0)

Required Courses III (3 hours)
Select one of the following:
ANT 426 - Method and Theory in Archaeology 3(3-0)
ANT 451 - History of Anthropological Thought 3(3-0)

Electives I (3-12 hours)
Cultural and Social Anthropology
Select at least one of the following:
ANT 200 - Education and Culture 3(3-0)
ANT 320 - North American Indian Cultures 3(3-0)
ANT 321 - Cultures of Latin America 3(3-0)
ANT 322 - Cultures of Africa 3(3-0)
ANT 324 - Cultures of the South Pacific 3(3-0)
ANT 326 - Chinese Societies 3(3-0)
ANT 365 - Current American Indian Issues 3(3-0)
ANT 368 - Hispanic Cultures in the U.S. 3(3-0)
ANT 370 - Global Environmental Issues 3(3-0)
ANT 451 - History of Anthropological Thought 3(3-0)
ANT 457 - Globalization and Society 3(3-0)
ANT 459 - Anthropology of Religion 3(3-0)
ANT 506 - Comparative Cultural Systems 3(3-0)
ANT 520 - Global Perspectives in Health and Illness 3(3-0)
ANT 590 - Gender, Culture & Society 3(3-0)

Electives II (3-12 hours)
Physical Anthropology
Select at least one of the following:
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)

Electives III (3-12 hours)
Archaeology
Select at least one of the following:
ANT 240 - Archaeological Field and Laboratory Techniques 1-4(Spec)
ANT 340 - South American Archaeology 3(3-0)
ANT 344 - Michigan Archaeology 3(3-0)
ANT 426 - Method and Theory in Archaeology 3(3-0)
ANT 500 - Field School in Archaeology 3-6(Spec)

With the approval of the advisor: ANT 388, 465, 498, and 588 may be counted in any of the three groups according to course content; electives may include up to 6 hours in related disciplines.

Total: 31 semester hours

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

(continued)
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 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. Admissions 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)
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 Generalist Practice III 3(3-0)
SWK 374 - Social Work and Human Behavior I 3(3-0)
SWK 375 - 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.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:
HDF 110 - Oppression: Roots and Impact on Human Development in the United States 3(3-0)
HDF 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 514 - Sociology of Health and Illness 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
Ian Davison, Dean

Jane Matty, Associate Dean

Claudia Douglass, Associate Dean for STEM Education and Science Initiatives

200 Engineering Technology Building; 989-774-1870

http://www.cst.cmich.edu

Introduction

Academic programs that stress integrative learning and critical thinking skills distinguish the College of Science and Technology. Every student has many opportunities to interact with professors, both in and beyond the boundaries of the formal classroom.

If you have an interest in the natural world around us, and you enjoy mathematics, chemistry, physics, biology, earth science, computers, engineering or industrial applications, you should consider a career in science and technology.

The career outlook for students with degrees in science, mathematics, engineering and technology is outstanding. Graduates of our programs have well-developed skills in thinking analytically and solving problems. They are recruited for high-paying jobs in scientific, technical and administrative positions in industry, consulting services, universities, non-profit research organizations, and government agencies.

Many students continue on with advanced study in health-related, business, or other professional schools as well as further study at the master’s and doctoral levels. Most departments of the College offer master’s-level curricula leading to advanced professional degrees through the College of Graduate Studies, as well as doctoral programs in the science of advanced materials and in mathematics (with a concentration in college teaching).

Mission Statement

The mission of the college is to provide high quality education in science, mathematics, engineering, and technology, and to enable students, faculty, and staff to engage in the creation and application of knowledge. The college is committed to the broad liberal education essential for responsible citizenship, coupled with programs of professional study that offer students the requisite training and knowledge to become successful in careers or additional studies. In all its activities, the college supports academic excellence, global awareness, equal opportunity, and diversity.

Areas of Study

Departmental

The College of Science and Technology consists of eight departments and over 200 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, Natural Resources)
- Chemistry (Chemistry, Biochemistry)
- Computer Science (Computer Science, Information Technology)
- Geography (Geography, Geographic Information Science)
- Geology (Geology, Hydrogeology, Meteorology)
- Engineering and Technology (Engineering, Industrial and Engineering Technology)
- Mathematics (Mathematics, Statistics)
- Physics (Astronomy, Physics)

Further information about the departments 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 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 wireless computer network and departments provide computer services to their students for such things as computation-intensive modeling and data acquisition and analysis. College facilities also include the CMU Biological Station on Beaver Island in northern Lake Michigan and Neathercut Woodland near Farwell.

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 or visit the website [www.cst.cmich.edu/residentialcollege](http://www.cst.cmich.edu/residentialcollege).

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**Biology (BIO, MAR)**

For information, please contact the chairperson, 989-774-3227, 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 Neithercut 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 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:
- Option A
  - CHM 131 - Introduction to Chemistry I 4(3-3)
  - CHM 132 - Introduction to Chemistry II 4(3-3)
- Option B
  - 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)

Electives (22 hours)
Biology 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)
Students selecting the Pre-Graduate/Pre-Professional option are required to take 7 hours in addition to the required core courses.
Choose from the options listed below:

Option A
- BIO 324 - Cell Biology 3(3-0)
- BIO 391 - Plant Physiology 4(3-3)

Option B
- BIO 324 - Cell Biology 3(3-0)
- BIO 392 - Mammalian Physiology 4(3-3)

Required Courses 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)
Biology 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 or 521, 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)
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 3(2-3)
BIO 218 - General Zoology 3(2-3)
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 3(2-3)
BIO 209 - Developmental Biology 3(2-3)
BIO 324 - Cell Biology 3(3-0)
BIO 326 - Genetics 4(3-3)
BIO 392 - Mammalian Physiology 4(3-3)
BIO 500 - Biological Statistics 3(2-2)

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 (BIO 524, 544, 545, 580, 325, 337, 536, 537, 577, HSC 214).

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 count both BIO 337 and HSC 214 toward your major.
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 consultation 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)
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 Elementary 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 - Fundamentals of Biochemistry 3(3-0)
CHM 522 - Intermediate Biochemistry 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)

Biology 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 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 (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)

Required Courses (4 hours)
CHM 505 - Teaching Chemistry and Physics in Secondary Schools 3(3-0)
CHM 507 - Field Experience in Teaching Chemistry/Physics 1(Spec)

Note: CHM 505 and 507 should be taken concurrently.

Electives (0-4 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: 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/preprofessional advisor before enrolling for biochemistry courses. The department recommends that students planning to teach chemistry in secondary schools major in chemistry.

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 - Fundamentals of Biochemistry 3(3-0)
CHM 522 - Intermediate Biochemistry 3(3-0)

(continued)
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 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

Chemistry-Physics Major

B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary with Emotional or Cognitive Impairment Endorsement

This is an Interdepartmental major. Please check the index for the page number.
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)
MTH 132 - Calculus I 4(4-0)
MTH 175 - Discrete Mathematics 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Electives (9 hours)
Electives in CPS or ITC numbered at 280 or above

Total: 49 semester hours

Computer Science Minor

A minor in computer Science will 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 (19 hours)
CPS 180 - Principles of Computer Programming 3(3-0)
CPS 181 - Introduction to Data Structures 3(3-0)

Computer Integrated Manufacturing Major

B.A.; B.S. degree

This is an interdepartmental 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.

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 280 - Alternative Programming Languages 1-6(Spec)
ITC 111 - Information Technology Programming II 3(3-0)

Note: 3 hours of CPS 280 is required.

(continued)
Option B (9 hours)
CPS 180 - Principles of Computer Programming 3(3-0)
CPS 181 - Introduction to Data Structures 3(3-0)
CPS 280 - Alternative Programming Languages 1-6(Spec)

Note: 3 hours of CPS 280 is required.

Required Courses II (18 hours)
CPS 282 - Introduction to Multimedia Design 3(3-0)
CPS 395 - Internship in Computer Science 1-9(Spec)
ITC 190 - Computer Hardware Concepts, Installation, Configuration, and Support 3(3-0)
ITC 191 - Computer Software Concepts, Installation, Configuration, and Support 3(3-0)
ITC 265 - Basics of Data Communications and Computer Networks 3(3-1)
ITC 341 - Introduction to Databases and Applications 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)
ITC 465 - Network Administration and Security 3(3-0)
ITC 466 - System Administration and Automation 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 383 - Computer Game Design 3(3-0)

Web 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)
MTH 217 - Business Calculus 4(4-0)

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/ITC courses from other IT tracks, or other areas of CPS/ITC, possible electives might include courses such as AMD 246, AMD 346, ART 135, ART 235, ART 335, ART 435, BIO 516, BIS 280, BIS 288, BIS 327, EDU 590, GEO 303, GEO 503, IET 154, IET 291, IET 359, IET 394, IET 457, IET 458, IET 502, IND 334, MGT 335, PSC 585, SOC 210, and TEC 321.

Total: 51-52 semester hours

Information Technology Minor
B.A.; B.A.A.; B.F.A.; B.S. in B.A.; B.S. degrees
A minor in Information Technology may not be approved for students with majors in Computer Integrated Manufacturing, Computer Technology, or the joint major, Computer Science-Mathematics. A minor in Information Technology will be approved for students with a major in Computer Science 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 280 - Alternative Programming Languages 1-6(Spec)
ITC 111 - Information Technology Programming II 3(3-0)

Note: 3 hours of CPS 280 is required.

Option B
CPS 180 - Principles of Computer Programming 3(3-0)
CPS 181 - Introduction to Data Structures 3(3-0)
CPS 280 - Alternative Programming Languages 1-6(Spec)

Note: 3 hours of CPS 280 is required.

Required Courses II (6 hours)
ITC 190 - Computer Hardware Concepts, Installation, Configuration, and Support 3(3-0)
ITC 191 - 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 265 - Basics of Data Communications and Computer Networks 3(3-1)
ITC 320 - Web-Based Applications 3(3-0)
ITC 341 - Introduction to Databases and Applications 3(3-0)
ITC 383 - Computer Game Design 3(3-0)
ITC 395 - Internship in Computer Science 1-9(Spec)
ITC 385 - Introduction to Data Communications and Computer Networks 3(3-0)
ITC 389 - Computer Game Design 3(3-0)
ITC 441 - Database Administration 3(3-0)
ITC 465 - Network Administration and Security 3(3-0)
ITC 466 - System Administration and Automation 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.

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 190 - Digital Circuits 3(3-0)
EGR 251 - Engineering Statics 3(3-0)
EGR 290 - Circuit Analysis I 3(3-0)
EGR 292 - Circuit Analysis II 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 392 - Microelectronic Circuits II 3(3-0)
EGR 393 - Circuit Lab 3(1-4)
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 489 - 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)

Electives (3 hours) Select at least 3 hours from the following engineering courses:
EGR 253 - Engineering Dynamics 3(3-0)
EGR 255 - Strength of Materials 3(3-0)
EGR 356 - Thermodynamics I 3(3-0)
EGR 358 - Fluid Mechanics 3(3-0)
EGR 397 - Special Topics in Engineering 1-6(Spec)
EGR 437 - Directed Research in Engineering 1-3(Spec)
EGR 490 - Computer Data Acquisition & Instrumentation 3(3-0)
EGR 494 - Power Electronics 3(3-0)
EGR 497 - Introduction to VLSI Design 3(3-0)

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.
### 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 190 - Digital Circuits** 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 290 - Circuit Analysis I** 3(3-0)
- **EGR 355 - Engineering Materials** 3(3-0)
- **EGR 356 - Thermodynamics I** 3(3-0)
- **EGR 358 - Fluid Mechanics** 3(3-0)
- **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 - Directed Research in Engineering** 3(2-2)
- **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 (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 375 - Machine Design I** 3(3-0)
- **IET 377 - Computer Numerical Control Programming** 3(2-2)
- **IET 384 - Fluid Power Technology** 3(2-2)
- **IET 391 - Applied Electronics** 3(2-2)
- **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 three 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:

#### Manufacturing Technology Concentration
**Concentration Courses (24 hours)**
- **EGR 284 - Fluid Power Technology** 3(2-2)
- **EGR 391 - 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 - Computer Numerical Control Programming** 3(2-2)
- **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(2-2)
- **IET 455 - Engineering Materials** 3(3-0)
- **IET 456 - Thermodynamics II & Heat Transfer** 3(3-0)
- **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 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, which includes 30-42 hours of general education requirements and 24-29 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 following core courses. Additionally, all students must complete 18 required credits from one of two Technology Majors. Students also need to select six credits 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.

Engineering Technology Core (27 hours)

All engineering technology students are required to complete the following core courses.

EGR 120 - Introduction to Engineering 3(3-0)
EGR 251 - Engineering Statics 3(3-0)
IET 154 - Engineering Design Graphics 3(2-2)
IET 170 - Metal Technology 3(1-4)
IET 279 - Applied Statics 3(3-0)
IET 284 - Fluid Power Technology 3(2-2)
IET 291 - Applied Electronics 3(2-2)
IET 359 - Parametric Design and Modeling 3(2-2)
IET 365 - Plastics Technology 3(2-2)
IET 375 - Robotics 3(2-2)

Note: You may select only one of IET 279 OR EGR 251.

Technical Electives (6 hours)

Select 6 hours from the following:

IET 180 - Power and Energy Technology 3(2-2)
IET 225 - Manufacturing Process Planning 3(3-0)
IET 326 - Manufacturing Methods Analysis 3(3-0)
IET 327 - Industrial Safety 3(3-0)
IET 377 - Computer Numerical Control Programming 3(2-2)
IET 388 - Automotive Power Transmission 3(2-2)
IET 420 - International Engineering Technology 1-6(Spec)
IET 425 - Industrial Internship 2-8(Spec)
IET 426 - Plant Layout and Materials Handling 3(3-0)
IET 428 - Manufacturing Quality 3(3-0)
IET 437 - Independent Study 2-5(Spec)
IET 451 - Geometric Dimensioning and Tolerancing 3(2-2)
IET 455 - Tool Design 3(2-2)
IET 457 - Computer-Aided Design 3(2-2)
IET 458 - Surface Modeling 3(2-2)
IET 477 - Advanced Computer Numerical Control Programming 3(2-2)
IET 500 - Production Concepts 3(3-0)
IET 576 - Industrial Automation 3(2-2)

Manufacturing Engineering Technology Major

Required Courses (18 hours)

IET 326 - Manufacturing Methods Analysis 3(3-0)
IET 327 - Industrial Safety 3(3-0)
IET 377 - Computer Numerical Control Programming 3(2-2)
IET 426 - Plant Layout and Materials Handling 3(3-0)
IET 428 - Manufacturing Quality 3(3-0)
IET 500 - Production Concepts 3(3-0)

Technical Electives (6 hours)

Select 6 hours from the following:

IET 180 - Power and Energy Technology 3(2-2)
IET 225 - Manufacturing Process Planning 3(3-0)
IET 350 - Mechanism Design 3(2-2)
IET 351 - Dynamics 3(3-0)
IET 355 - Thermodynamics 3(3-0)
IET 379 - Mechanics of Materials 3(3-0)
IET 388 - Automotive Power Transmission 3(2-2)
IET 420 - International Engineering Technology 1-6(Spec)
IET 425 - Industrial Internship 2-8(Spec)
IET 437 - Independent Study 2-5(Spec)
IET 450 - Machine Design Graphics 3(2-2)
IET 451 - Geometric Dimensioning and Tolerancing 3(2-2)
IET 454 - Mechanical Design Problems 3(2-2)
IET 455 - Tool Design 3(2-2)
IET 457 - Computer-Aided Design 3(2-2)
IET 458 - Surface Modeling 3(2-2)
IET 477 - Advanced Computer Numerical Control Programming 3(2-2)
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)

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(2-2)
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 - Computer Numerical Control Programming 3(2-2)
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 - Advanced Computer Numerical Control Programming 3(2-2)

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

Required Courses I (0-3 hours)

- 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)

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 27-semester hour minor is available to students who wish to complete a teaching major in another discipline. Consult with an advisor or mentor in the ET department for assistance in scheduling 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) offers a systematic education that will help you cope with our rapidly changing world. With an emphasis on the interrelationships and interactions between humans and the environment, Geography provides a comprehensive and analytical approach to contemporary environmental, economic, and social issues. Geography students are equipped with cutting edge computational and information technology to understand patterns of human activities and earth processes and to help make decisions on urban and regional planning, resource utilization and preservation, marketing strategies, mitigation of natural hazards, and homeland security.

Geography students possess highly marketable skills and find many career opportunities—Geospatial intelligence analyst, GIS analyst, landuse planner, cartographer, resource manager, environmental and engineering consultant, climatologist, and educator.

Geography at CMU

CMU offers a prominent Geography program with an emphasis on Geospatial technology, environmental analysis and planning, and global studies. The Geography Department offers a Geography major with a concentration in Geographic Information Sciences, a Geography major with a concentration in Environmental and Landuse Planning, and a GIS minor. The department also offers both teaching and non-teaching majors and minors in Geography. 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).

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.

Geography and Earth Science 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

Robert H. Aron, Brian Becker, Jorge A. Brea, Mark Francek, Bin Li, Michael J. Libbee, David Patton, Xiaolan Wu, Daisaku Yamamoto, Tao Zheng

Geography Majors

Geography Major

B.A.; B.S. degrees

Advisors: staff

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 (9 hours)

9 hours of 300-level, including one regional course.

Electives (9 hours)

9 hours selected with permission of instructor.

Total: 30 semester hours

Geographic Information Sciences (GISci) Concentration

Advisors: Becker, Li, Patton, Wu, Zheng

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 (22 hours)

GEO 303 - Geographic Information Systems - I 3(2-2)
GEO 305 - Remote Sensing of the Environment 3(2-2)
GEO 404 - Global Positioning System 1(1-0)
GEO 500 - Advanced Cartography 3(2-2)

(continued)
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 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 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 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 503 - Geographic Information Systems 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
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)
GEO 201 - Weather and Climate 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 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: 24 semester hours

Geographic Information Sciences (GISci) 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

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:
GEO 201 - Weather and Climate 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)
GEO 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)

(continued)
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(3-3)
- 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 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)
- 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.

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Earth Science Major
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Advisors: Francek, Matty, Morgan
This is an interdisciplinary major. 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, Becker, Matty, Morgan
This is an interdisciplinary minor. Please check the index for the page number.

Earth Science Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.
Advisors: Francek, Becker, Matty, Morgan
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.

Integrated Science Major
B.S. in Ed., Secondary Provisional 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 Elementary Provisional Certification with Emotional or Cognitive Impairment Endorsement (K-12)

This is an interdisciplinary major. Please check the index for the page number.
Geology and Meteorology

As scientific knowledge has advanced, the ability to study Earth as a complex system of interacting physical processes has become possible. Fluids that move through Earth and on the surface are intimately connected to the motion of fluids and gases in our atmosphere and therefore represent two critical components of the Earth system. Therefore, these two programs are housed within the same department. This allows students the opportunity to take elective courses from either program to broaden their knowledge of the Earth system.

Why Study Geology?

Geology is the scientific study of Earth. Geoscientists investigate Earth and its history in order to discover resources, assess pollution, and evaluate natural hazards and other Earth processes that affect our lives. Geoscientists find employment in many areas that are indispensable to our society. Geologists locate mineral deposits and energy resources. They find, evaluate, and manage water supplies. They ensure that wastes are stored or disposed of safely. They monitor soil and ground water pollution and are involved in cleaning up contaminated sites. They evaluate environmental hazards for city, highway, and pipeline planners. They serve as public policy advisors. They study the formation of rocks, the movements of continents, the flow of glaciers, and the rise and fall of sea levels. Geoscientists contribute to our understanding of Earth’s long-term climate variability. They study fossils and the history of life. They contribute to the understanding and prediction of natural hazards and disasters, such as earthquakes, landslides, volcanic eruptions, coastal erosion, and floods. Geoscientists work outdoors, in laboratories, in offices, and as teachers.

Geology majors and minors are also good supplements to other majors, such as environmental studies, outdoor recreation, natural resources, and education. Geology courses are also helpful to students interested in fossils, gems, minerals, earthquakes, volcanoes, and resources. Because training in geology prepares students to work with large complex datasets and to make decisions based on limited information, geology graduates often successfully transfer their skills to various business, financial, and legal areas.

Why Study Meteorology?

Meteorology is the study of weather and all processes that affect weather. It is a rapidly evolving science with significant relevance to society. From climate change to severe storms, meteorologists apply theoretical understanding to observed and modeled atmospheric processes to create forecasts and conduct research. Society benefits from more accurate weather information, therefore the ability to communicate complex scientific analysis is of great importance to the meteorologist. Nearly every adult in the United States is a consumer of weather and climate data, at some decision-making level. The net national benefit of weather information is estimated at $8.8 billion per year.

Geology at CMU

The geology program at CMU offers majors and minors to suit a variety of interests and needs. The department offers excellent facilities to support field work and laboratory-based research. All geology majors participate in field trips and research projects, both as required components of classes and as optional adventures. The small size of the department provides students an outstanding educational experience including close interaction with faculty. The department also offers a major in meteorology.

The geology major emphasizes mastery of the basics required for success as a professional geoscientist: a strong foundation of geologic knowledge and the development of skills related to observation, field and laboratory projects, critical-thinking, computer use and technical writing. This rigorous course of study serves as excellent preparation for graduate education or for a career in the geosciences.

Meteorology at CMU

Central Michigan University offers a modern, thorough curriculum to prepare students for a career in meteorology. It is the only undergraduate major in meteorology in the state of Michigan. The faculty have terminal degrees in meteorology and teach small classes with laboratory time for practical leaning using state-of-the-art weather analysis software. Our program meets the guidelines specified for a Bachelor of Science degree by the American Meteorological Society, as well as the requirements outlined by the National Weather Service. This is considered to be the highest level of accreditation for undergraduate atmospheric science programs. Our program will provide students with the expertise necessary to attend graduate school, forecast for the National Weather Service, broadcast weather for television and radio, or work in the commercial weather industry. We have been accepted as an Academic Affiliate member of the University Corporation for Atmospheric Research (UCAR).

The Faculty

Martin Baxter, Kathleen Bension, Anthony Feig, Maria Mercedes Gonzalez, Patrick Kinnicutt, David Matty, Sven Morgan, Neil Mower, Leigh Orf, Ashton Peyrefitte, Jodi Ryder, Mona Sirbescu, James Student, Karen Tefend, Reed Wicander
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.

Majors

Geology Major

B.A.; B.S. degrees

ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS

See the information at the beginning of this section.

Core Courses I (3-4 hours)

Select one of the following options:

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)

Option D (3 hours)

GEL 130 - Earth Processes 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 321 - Petrology 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)
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:

GEL 372 - Introduction to Geophysics 3(2-3)
GEL 380 - Hydrogeology 3(2-3)
GEL 460 - Geochemistry 3(3-0)

Required Courses III (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 IV (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)

Electives (3 hours)

Select approved 300-level or above electives excluding GEL 301, 304, and 320.

Total: 64-68 semester hours
Required Courses and Electives for the Hydrogeology/Environmental Geology Concentration

Core Courses I and II (see above)

Required Courses I (24 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:
MTH 223 - Linear Algebra and Matrix Theory 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Required Courses III (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 IV (3-4 hours)
Select one of the following:
CHM 342 - Survey of Organic Chemistry 4(3-3)
CHM 345 - Organic Chemistry I 3(3-0)

Electives (3 hours)
Select electives from the following:
CHM 346 - Organic Chemistry II 3(3-0)
GEO 303 - Geographic Information Systems - I 3(2-2)
GEO 310 - Surface Hydrology 3(2-2)
STA 382 - Elementary Statistical Analysis 3(3-0)

Total: 66-71 semester hours

Note: 16 hours of prerequisites (CHM 131, CHM 132, MTH 132, PHY 130)

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 413 - Geomorphology 3(3-0)
GEO 303 - Geographic Information Systems - I 3(2-2)
GEO 310 - Surface Hydrology 3(2-2)
STA 382 - Elementary Statistical Analysis 3(3-0)

Total: 40-42 semester hours

Note: 16 hours of prerequisites (CHM 131, CHM 132, MTH 132, PHY 130)

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(3-0)
MET 320 – Cloud Physics 3(3-0)
MET 330 – Dynamic Meteorology I 3(3-0)
MET 335 – Dynamic Meteorology II 3(3-0)
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(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)
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.

(continued)
Earth Science Major
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 major. Please check the index for the page number.

Environmental Studies Major
B.A.; B.S. degrees
This is an interdisciplinary major. Please check the index for the page number.

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 Major
B.S. in Ed., Secondary Provisional Certification
This is an interdisciplinary major. Please check the index for the page number.

Minors

Geology Minor
B.A.; B.A.A.; B.S. degrees

Required Courses I (3-4 hours)
Students must select one of the following options:

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)

Option D (3 hours)
GEL 130 - Earth Processes 3(2-2)

Total: 21-22 semester hours

Hydrogeology/Environmental Geology Minor
B.A.A.; B.A.; B.S. degrees

Admission Requirements, Retention & Termination Standards
See the information at the beginning of this section.

Required Courses I (3-4 hours)
Students must select one of the following options:

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)

Option D (3 hours)
GEL 130 - Earth Processes 3(2-2)

Total: 21-23 semester hours

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, 214 Pearce Hall; 989-774-3596; FAX 989-774-2414,
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

Admissions 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 (36 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 376 - Discrete Structures 3(3-0)
MTH 462 - Capstone on Teaching and Learning Mathematics for Secondary Teachers 3(3-0)
STA 382 - Elementary Statistical Analysis 3(3-0)

Electives (6-7 hours)
A minimum of two additional courses is required. At least one of these must be numbered 500 or above. These courses are to be selected from the following list:
MTH 233 - Calculus III 4(4-0)
MTH 334 - Differential Equations 3(3-0)
MTH 499 - Capstone Course in Mathematics 3(3-0)
MTH 521 - Theory of Numbers 3(3-0)
MTH 532 - Modern Algebra I 3(3-0)
MTH 545 - Introduction to Point-Set Topology 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)

Total: 44-45 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)

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.

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 or 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 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
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

Mathematics Minor
B.S. in B.A. degree

Required Courses (10 hours)
- MTH 132 - Calculus I 4(4-0)
- MTH 278 - Mathematical Models 3(3-0)
- STA 382 - Elementary Statistical Analysis 3(3-0)

Electives (10 hours)
Electives may be chosen from the following:
- CPS 181 - Introduction to Data Structures 3(3-0)
- MTH 133 - Calculus II 4(4-0)
- MTH 223 - Linear Algebra and Matrix Theory 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 462 - Capstone on Teaching and Learning Mathematics for Secondary Teachers 3(3-0)
- STA 580 - Applied Statistical Methods I 3(3-0)
- STA 587 - Operations Research II 3(3-0)
- STA 585 - Applied Statistical Methods II 3(3-0)
Electives are to be selected from MTH, STA, or CPS in consultation with and approval by a mathematics advisor.
Total: 20 semester hours

NOTE: See notes on double counting at the end of this section.
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.

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

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**
See the information at the beginning of this section.

**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 Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

**ADMISSION REQUIREMENTS, RETENTION & TERMINATION STANDARDS**
See the information at the beginning of this section.

**Required Courses (26 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 2(1-2)
- 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 505 - Teaching Chemistry and Physics in the Secondary School 3(3-0)

Total: 26 semester hours
Course Descriptions

Key to Designators

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<td>Recreation, Parks, and Leisure Services Administration</td>
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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.

Descriptions of courses approved for the University Program appear in italic type.
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 managerial decisions for businesses and other entities. Prerequisite: MTH 105 This course is approved for offering in a distance learning format.

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. Prerequisite: ACC 203 with a minimum grade of C This course is approved for offering in a distance learning format.

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)
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. Pre/Co-Requisites: ACC 202 or ACC 255. This course is approved for offering in a distance learning format.

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 excludable 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. Pre/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 492 Practicum In Small Business 3(Spec)
Provides the student an opportunity to utilize the accounting, finance, marketing, management, and production system of an ongoing small business. Identical to FIN/MGT/MKT/BIS 492. Credit may not be earned in more than one of these courses. Prerequisites: 56 semester hours completed; permission of instructor; admission to Professional Business Studies or listed on signed major or minor.

ACC 501 Advanced Accounting 3(3-0)
Intercorporate 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 302 with average of 2.5 GPA for both courses; 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; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 512 Tax Research and Administration 3(3-0)
A study of the sources of tax law, professional tax research techniques, IRS procedures used to administer the tax system, and professional tax practice standards. Prerequisites: ACC 311; 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 and preparation of decedent's 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 analysis of 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 531 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; 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. Recommended: permission of instructor; admission to Professional Business Studies or listed on signed major or minor.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

ACC 605 Accounting Theory I 3(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 SAP Configuration, Control & Implementation of Global Accounting Systems 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)

### Apparel Merchandising and Design (AMD)

See the Department of Human Environmental Studies for more information.

AMD 140 Introduction to Apparel Construction 3(2-2)
Basic construction, alteration, and fitting techniques of apparel.

AMD 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.

AMD 155 Introduction to Textiles 3(2-2)
Study of fiber, yarn, and fabric properties for fashion and functional garments; impact of various processes on end-use and serviceability; includes textile laboratory analysis. Credit may not be earned in both AMD 155 and IND 155.

AMD 240 Advanced Apparel Construction 3(2-2)
Advanced construction, alteration, and fitting techniques with attention to special fabric methods and use of appropriate apparel production equipment. Prerequisite: AMD 140 or passage of placement test.

AMD 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: AMD 140, AMD 141.

AMD 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: Signed major in apparel merchandising & design with a concentration in apparel design or signed major in apparel merchandising & design with a concentration in apparel merchandising. For Apparel Design Concentration: AMD 140, 141, 155. For Apparel Merchandising Concentration: AMD 141, 155.

AMD 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. This course is approved for offering in a distance learning format. (University Program Group IV-A)
AMD 256 Introduction to Fashion Industry 3(3-0)
A study of the complex of enterprises concerned with the design, production, and distribution of men’s, women’s and children’s apparel and accessories. Prerequisites: AMD 141.

AMD 330 Preprofessional 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: Signed major in apparel merchandising & design with a concentration in apparel design or signed major in apparel merchandising & design with a concentration in apparel merchandising. For Apparel Design Concentration: AMD 140, 155, 256. For Apparel Merchandising Concentration: AMD 155, 256. Pre/Co-requisites: For both Apparel Design Concentration and Apparel Merchandising Concentration: AMD 246. Recommended: For Apparel Design Concentration: any art studio course or AMD 546. For Apparel Merchandising Concentration: BLR 325/WST 325 or MGT 320 or MGT 357 or ACC 201 or MGT 340.

AMD 332 Fashion Buying 3(2-2)
Fundamentals of the fashion buying function: practices, procedures, and techniques including merchandising calculations and buying simulation. Prerequisites: AMD 256, BIS/CPS 106, successful completion of math competency.

AMD 345 Apparel Design Methods 3(2-2)

AMD 346 Advanced CAD for Apparel 3(2-2)
Apparel design and production techniques using computer systems and CAD software. Web site development, portfolio development, and CAD related career exploration. Prerequisites: AMD 246.

AMD 350 Professional Study Tour 2-3(Spec)
Tours to relevant sites within merchandising and design industries which may include producers, trade shows, museums, etc. Credit based on tour content and depth of study. CR/NC only.

AMD 355 Textile Analysis 3(2-2)
Use of standardized testing in quality control of textiles for end-use and serviceability. Prerequisite: AMD 155.

AMD 356 Visual Merchandising 3(3-0)
Principles and practices of effective merchandise presentation and display including techniques, resources and evaluation. Prerequisite: AMD 256.

AMD 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.

AMD 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: AMD 246, 256.

AMD 397 Special Topics in Apparel Merchandising & Design 1-6(Spec)
Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

AMD 401 Internship in Apparel Merchandising and Design 4(Spec)
A structured internship experience that fosters transfer of knowledge and skill into competencies required for successful performance in an apparel merchandising or design career. Prerequisites: AMD 330, permission of instructor.

AMD 410 Fashion Advertising and Promotion 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: AMD 335; senior standing.

AMD 490 Independent Study in Apparel Merchandising and Design 1-6(Spec)
A student-initiated learning activity focusing on a faculty approved topic in Apparel Merchandising and Design. Prerequisite: Permission of instructor.

AMD 497 Special Topics in Apparel Merchandising & Design 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

AMD 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: AMD 346 with grade of C or better.

AMD 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: AMD 241, AMD 345, AMD 355.

AMD 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 AMD 401.

AMD 560 Apparel Product Development 3(2-2)
Integration of merchandising and design functions through team-based and case-based study, and/or industry collaboration as a total process for apparel product development. Prerequisites: Signed major in Apparel Merchandising & Design with a concentration in Apparel Design or signed major in Apparel Merchandising & Design with a concentration in Apparel Merchandising. For Apparel Design concentration: AMD 246, 345, 355, 401; Pre/Co-requisite AMD 550. For Apparel Merchandising Concentration: AMD 246, 355, 358, 401; Pre/Co-requisite AMD 550. Or admission to College of Graduate Studies. Co-requisites: AMD 550.

AMD 597 Special Topics in Apparel Merchandising & Design 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisite: see class schedule.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

AMD 604 Scholarship in Textiles and Clothing 3(3-0)

AMD 635 Advanced Internship in Textiles & Apparel 6(Spec)

AMD 640 Anthrometrics and Apparel 3(2-2)

AMD 641 Apparel Presentation Technology 3(2-2)

AMD 655 Textile Product Evaluation 3(2-2)

AMD 666 Apparel Retail Technology 3(3-0)

AMD 679 Special Topics in Apparel Merchandising & Design 1-15(Spec)

AMD 790 Independent Study in Apparel Merchandising & Design 2-6(Spec)

AMD 797 Special Topics in Apparel Merchandising & Design 1-15(Spec)

AMD 798 Thesis in Apparel Merchandising & Design 1-6(Spec)

American Studies (AMS)

AMS 250 Proseminar in American Study 3(3-0)
Introduction 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)
Formal 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. (University Program 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. (University Program 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 hereditary variations. University Program 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 University Program Group II laboratory requirement. Prerequisite: ANT 171 or concurrent enrollment. (University Program 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. (University Program Group IV-B)

Descriptions of courses approved for the University Program appear in italic type.
ANT 200 Education and Culture 3(3-0)
Process of cultural learning from infancy through adolescence in non-Western societies and American minority groups. (University Program 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.

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 cultures. (University Program 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. (University Program 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. (University Program 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. (University Program Group IV-B)

ANT 326 Chinese Societies 3(3-0)
Culture and social life in prerevolutionary China and Taiwan and post-revolutionary (Communist) China. (University Program 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.

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.

ANT 348 Stone-Age Europe: Peoples and Cultures of the Distant Past 3(3-0)
Ancient peoples and cultures of Europe from the perspective of anthropological archaeology, beginning perhaps 800,000 years ago and developing through Paleolithic, Mesolithic, and Neolithic periods.

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 human evolution to primate behavior with emphasis on effects of ecology on social relations and group organizations. Prerequisites: ANT 171 or BIO 101 recommended. (University Program Group IV-A)

ANT 355 Current American Indian Issues 3(3-0)
Current social, economic, political, and cultural issues affecting American Indians; social movements of resistance and change. (University Program 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 Latina analyses of contributions and the role of racism in defining this group. (University Program 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 388 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.

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.

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 courses.

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.

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.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

ANT 698 Independent Studies in Anthropology 1-12(Spec)

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 114 Understanding Digital Photography 3(3-0)
Introduction to the basic compositional skills and conceptual applications of digital photography. This course cannot be applied to any Art Major or Minor.

ART 115 Design I 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 302 ANT
ART 117 Introduction to Contemporary Issues in Art 3(3-0)
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. Prerequisite: ART 115. CP/NC option available.

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. This course is approved for offering in a distance learning format. (University Program 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.

ART 140 Photography I: Introduction to Digital Photography 3(0-6)
Introduction to the basic technical and conceptual skills of digital 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)
Introduction to hand weaving on a frame loom, and off-loom techniques which may include basketry, fabric collage/felting, papermaking, and dyeing.

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. (University Program 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 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 130.

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: Digital Montage & Studio Lighting 3(0-6)
Digital photographic assignments emphasizing digital compositing and artificial lighting techniques. 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 250 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. (University Program Group I-A)

ART 297 Special Studies I-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. (University Program 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 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.

ART 335 Design Bureau 3(0-6)
Investigations into the creation 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 digital illustration with a specific focus for the graphic designer. Prerequisites: ART 105, 115, 118.

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: Analog & Alternative Processes 3(0-6)
Analog and digital hybrid photography assignments introducing silver and non-silver photographic processes. Prerequisite: 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 15050s to the present.

ART 343 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.

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.

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.

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 more advanced printing methods within fine art printing. Prerequisites: ART 250.

ART 358 Web Design I 3(3-0)
Web design as it relates to graphic design. Prerequisites: ART 349; signed BFA with a concentration in graphic design.

ART 360 Figurative 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.

Descriptions of courses approved for the University Program appear in italic type.
ART 438  Motion Graphics 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. (University Program 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)
Introductions 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 patterning and color with dyes and pigments through silkscreen, batik, resist tie-dye, and painting on fabric. Prerequisites: ART 115 or ART 270.

ART 380 Greek Art and Architecture 3(3-0)
The art and architecture of ancient Greece from the Geometric to Hellenistic periods. Prerequisites: ART 185.

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)
Women's identities as artists, patrons, viewers, and subjects of representation through history, 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: 28 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)
Continued 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 438 Motion Graphics 3(0-6)
Introduction to computer-aided animation theory and application. Prerequisites: ART 235, 349; signed BFA with a concentration in graphic design.

ART 440 Photography IV: New Media Perspectives 3(0-6)
Creative work for the advanced student, an introduction to video, web, and emerging screen-based presentation techniques. Prerequisite: ART 240.

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 348, signed BFA with 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 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)
Studio experience developing a greater sensitivity to fibers on and off the loom. Prerequisite: ART 371.

ART 471 BFA Exhibition 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 postgraduate career. Must be taken in the last semester prior to graduation. Prerequisites: Signed SFA in Art and senior standing.

ART 472 Graphic Design Capstone Experience 3(3-0)
A graphic design capstone experience focusing on the development of personal design philosophy, the senior project exhibition, a 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 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.

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 3 credits in Art History.

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.

ART 484 From Impressionism to the Present: New York Galleries 2(Spec)
Travel study course to metropolitan galleries to view and study original works of art.

ART 485 Seminar in Contemporary Art 3(3-0)
Selected topics for critical studies drawn from problems of aesthetics, historiography, or stylistic analysis of contemporary art. Prerequisite: ART 285.

ART 486 Independent Study in Art History 3-6(Spec)
Advanced research in a selected topic. Prerequisites: ART 185, ART 285; permission of instructor.

ART 487 Indigenous Arts of North America 3(3-0)
Historical development of the aboriginal peoples of the Americas. Prerequisites: ART 126 or 3 credits in Art History.

ART 497 Special Studies 1-6(Spec)
Further study when scholarly studio adequacy beyond ART 397 is achieved.

ART 498 BA/BS Capstone Experience 11(0)
Students will assemble a portfolio of their work and participate in a group portfolio review for a final capstone assessment. Course must be taken in one of the last two semesters prior to graduation. Prerequisites: Signed BA/BS in Art; and senior standing.

Descriptions of courses approved for the University Program appear in italic type.
ART 497 Senior Seminar 3(3-0)
Capstone course for the B.A.A. student, including development and presentation of senior portfolio, documentation of artwork, and professional strategies for establishing a successful career. Must be taken in one of the last two semesters prior to graduation. Prerequisites: Signed BAA in Art and senior standing.

ART 500 Preliminary Studio for Graduate Students 3(0-6)
Studio for graduate students without experience in a particular discipline. May be taken in ceramics, design, drawing, graphic design, painting, photography, printmaking, sculpture, fiber design. Prerequisite: graduate status and permission of instructor.

ART 510 Advanced Ceramics 3-12(Spec)
Emphasizes problems relating to concepts of forms and surface as well as technical information pertaining to firing and glazing. A student may take this course four times, for 3 hours of credit each time. Prerequisite: ART 410.

ART 516 Advanced Problems in Figure Drawing 3(0-6)
An individualized studio experience with emphasis on the human figure that would include problems in foreshortening, placement, and composition. Prerequisite: ART 416.

ART 530 Painting V 3(0-6)
An individualized studio experience in painting beyond ART 430 competency. Prerequisite: ART 430.

ART 535 Digital Multimedia for Designers 3(0-6)
The design and visual development of multimedia using a variety of authoring tools. Prerequisites: ART 358, ART 438, and a signed BFA with a concentration in graphic design.

ART 540 Photography V: Professional Practices 3(0-6)
An individualized studio experience for the advanced photography student, emphasizing long-term independent projects, critiques, and the creation of a professional portfolio. Prerequisite: ART 340, 440.

ART 550 Printmaking V 3(0-6)
An individualized studio experience in printmaking beyond ART 450 competency. Prerequisite: ART 450.

ART 556 Independent Studio 1-12(Spec)
An individualized studio experience determined in consultation with a faculty member. Prerequisites: 56 semester hours or graduate status.

ART 557 Independent Studio 1-12(Spec)
An individualized studio experience determined in consultation with a faculty member. Prerequisites: 56 semester hours or graduate status.

ART 558 Independent Studio 1-12(Spec)
An individualized studio experience determined in consultation with a faculty member. Prerequisites: 56 semester hours or graduate status.

ART 560 Professional Development in Sculpture 3(0-6)
An individualized studio experience focusing on personal research of new techniques, processes, materials, history and concepts of traditional and contemporary sculpture, and professional development. Prerequisite: ART 260.

ART 570 Fiber Design V 3(0-6)
An individualized studio experience in fiber design beyond ART 470 competency. Prerequisite: ART 470.

ART 572 Advanced Papermaking 3(0-6)
An investigation of advanced techniques and aesthetics for making handmade paper for 2-D and 3-D forms including bookbinding. Prerequisites: ART 375 or graduate status.

ART 575 Surface Design on Fabric II 3(0-6)
Advanced techniques and aesthetics for the application of image, patterning, and color with dyes and pigments through silkscreen, batik, paints, resists, and transfers on fabric. Prerequisites: ART 375 or graduate standing.

ART 584 Drawing in Florence 3(Spec)
An advanced drawing course in Florence, Italy, using the city as a source of inspiration for creative work. Prerequisites: ART 105 and permission of instructor.

ART 585 From Impressionism to the Present: New York Galleries 2(Spec)
Travel/study course to metropolitan galleries to view and study original works of art. Students who have taken ART 484 will do more comprehensive study.

ART 586 Seminar in Art History 3(3-0)
Students will pursue topics of special interest and share their research with the group. May be taken for graduate credit. Prerequisites: 12 credits in art history.

ART 597 Special Studies 1-6(Spec)
Further in-depth graduate study when scholarly/studio adequacy beyond ART 497 is achieved.

American Sign Language (ASL)
See the Department of Communication Disorders for more information.

ASL 100 Introduction to the Deaf Community and Deaf Culture 3(3-0)
An introduction to the sociolinguistic, social, and cultural aspects of Deafness and the Deaf Community; basic communication in American Sign Language.

ASL 101 American Sign Language, Level I 3(3-0)
Basic receptive and expressive American Sign Language (ASL) vocabulary and grammatical structure; fngerspelling; and conversational behavior. Basic understanding of Deaf Culture and ASL linguistics. A continuation of ASL 101. Prerequisite: ASL 101.

ASL 102 American Sign Language, Level II 3(3-0)
Basic receptive and expressive ASL vocabulary, grammar, fngerspelling, and conversational behavior. Basic understanding of Deaf Culture and ASL linguistics. A continuation of ASL 101. Prerequisite: ASL 101.

ASL 201 American Sign Language, Level III 3(3-0)

ASL 202 American Sign Language, Level IV 3(3-0)
Further development of intermediate-level receptive and expressive ASL vocabulary, grammar, fngerspelling, and conversational behavior; Deaf Culture and ASL linguistics. Continuation of ASL 201. Prerequisite: ASL 201.

ASL 390 Sociocultural History of the American Deaf Community 3(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.

ASL 401 American Sign Language Level V 3(3-0)
Advanced conversational American Sign Language. Beginning development of advanced-level receptive and expressive skills. Continued consideration of Deaf Culture and ASL linguistics. Prerequisites: ASL 100, ASL 202.

ASL 402 American Sign Language Level VI 3(3-0)
Advanced conversational American Sign Language. Continued development of advanced-level receptive and expressive skills. Continued consideration of Deaf Culture and ASL linguistics. Prerequisites: ASL 100, ASL 401.

ASL 404 Advanced Fingerspelling and Numbers 3(3-0)
Reading/comprehending and producing fngerspelled words and numbers; emphasis on clarity, accuracy, incorporation into conversational ASL. Prerequisites: ASL 100, ASL 202.

ASL 510 ASL Linguistics 3(3-0)
This course will examine the linguistics of American Sign Language. Topics will include the form, content and use of ASL; the relationship between ASL, spoken languages, and other signed languages; ASL acquisition; and historical change in ASL. Prerequisites: ASL 100, ASL 202.

ASL 590 Independent Study 1-4(Spec)
Student-initiated study of a topic related to the ASL minor guided by a faculty member or faculty committee. Prerequisites: ASL 100, ASL 202, permission of instructor.

ASL 595 Community Placements with Deaf Children and Adults 3(1-3)
Students apply their American Sign Language skills and knowledge of Deaf culture by working in community placements with Deaf children and/or adults. Prerequisites: ASL 202; ASL 300 or 390; and permission of instructor.

ASL 599 Special Topics 1-3(Spec)
Study of a selected topic, specific application, or current issue related to but not covered by the ASL minor curriculum. Prerequisites: ASL 100, ASL 202, permission of instructor.

Astronomy (AST)
See the Department of Physics for more information.

AST 111 Astronomy 3(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. (University Program 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, celestial globes, and star maps. Supplements AST 111 by providing observational experience. Satisfies University Program Group II laboratory requirement. Pre/Co-Requisite: AST 111. This course is approved for offering in a distance learning format. (University Program Group II-A)

AST 260 General Astronomy I 4(3-2)
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.

Descriptions of courses approved for the University Program appear in italic type.
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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 the media industry. This course is approved for offering in a distance learning format. Prerequisite: BCA 210 with a grade of C or better.

BCA 311 Electronic Media Copywriting 3(3-0)
Practice in the persuasive short forms of audio and video writing: commercials, continuity, public service announcements, and campaign evolution. Prerequisite: ENG 101 with a minimum grade of B or ENG 103/099 with a minimum grade of B in ELI 198 with a minimum grade of B or ENG 201 with a minimum grade of B.

BCA 317 Electronic Media Performance 3(2-2)
Study of, and laboratory experience in, common electronic media performance situations. Prerequisite: BCA 210 with a grade of C or better.

BCA 318 Radio and Television News 3(3-0)
Techniques and principles of writing and producing news copy for electronic media. Prerequisites: ENG 101 with a minimum grade of B or ENG 103/099 with a minimum grade of B in ELI 198 with a minimum grade of B; BCA 210 with a C or better.

BCA 320 Special Topics in Electronic Media 1-9(Spec)
Current topics listed in semester Schedule of Classes. Repeatable when content does not duplicate previous special topics studies. Maximum credit: 9 hours. Prerequisite: BCA 210 with a grade of C or better.

BCA 329 Practicum in Electronic Media 1-8(Spec)
Directed experience at departmental broadcast, cable and electronic news facilities. Maximum of 8 hours applicable to degree program. Only 4 hours can count toward BCA major and 2 hours toward a minor. CR/NC only. Prerequisite: permission of instructor.

BCA 332 Online Electronic Media 3(2-2)
Examination of online communication technologies, website productions, and streaming and stored audio/video media and their effects on the electronic media and society. Prerequisites: BCA 210 with grade of "C" or better.

BCA 342 Field Audio Production 3(2-2)
Study and practice of field audio recording and production techniques for electronic media application and distribution. Prerequisites: BCA 222 with a C or better.

BCA 415 Television Advertising Production 3(3-0)
Advanced television commercial copywriting and production: working with local clientele, identifying target audience, composing, writing, and producing television broadcast/cable commercials for airing. Prerequisites: BCA 210, 223, 311 all with a grade of "C" or better.

BCA 421 Advanced Audio Production 3(2-2)
Study and practice in advanced audio recording, mixing and editing for electronic media industries. Prerequisite: BCA 222 with a grade of "C" or better.

BCA 440 Introduction to Cinematic Production and Post Production 3(2-2)
Introduction to single-camera/cinema-style video production and post production, including producing, directing, lighting, camera operation and non-linear editing. Prerequisites: BCA 210, 223, 229 all with grades of C or better.

BCA 441 Multi-camera Video Producing and Directing 3(2-2)
Introduction to multi-camera video producing and directing, including studio and field-remote production environments. Prerequisites: BCA 210, 223, 229 all with grades of C or better.

BCA 490 Independent Study 1-4(Spec)
Student-initiated study guided by faculty or faculty committee. Maximum of 4 hours may be applied to degree. Does not fulfill requirements for a minimum of six (6) 400-500 level hours of electives in major. Prerequisite: 3.0 overall GPA; permission of instructor.

BCA 499 Senior Seminar 1(0-2)
Capstone assessment of the student's professional strengths and weaknesses plus refinement of strategies for establishing a successful post-graduate career. Prerequisites: Signed BCA major or minor and senior standing. Must be taken in one of the last two semesters prior to graduation.

BCA 503 Critiquing Mass Media 3(3-0)
Critical appraisal of mass communications systems and their content. Special attention to the electronic media's aesthetic properties and societal effects. Prerequisite: BCA 210 with a grade of C or better.

BCA 508 Screenwriting for Cinematic Narrative 3(3-0)
Techniques, formatting styles and aesthetic strategies for writing and analyzing short- and feature-length cinematic narrative screenplays, emphasizing characterization, plot and structure. Prerequisites: BCA 311 with a grade of C or better; limited to juniors or above; or graduate standing.

BCA 510 Electronic Media Law 3(3-0)
Regulation of the electronic media. Examination of legal and administrative materials and cases. Prerequisites: BCA 310 with a grade of "C" or better; limited to juniors and above.

BCA 511 Electronic Media Sales 3(3-0)
Organizational systems and processes of sales in electronic media. Emphasis on techniques found most reliable in modern sales practices in radio, television, internet and cable. Prerequisite: BCA 210 with a grade of C or better; limited to juniors or above.

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 the electronic media promoter. 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 "C" or better.

BCA 516 Broadcast and Cable Management 3(3-0)
Management in contemporary telecommunications settings. Prerequisite: Limited to juniors or above.

BCA 517 Advanced Audio and Video Performance 3(2-2)
Study and intensive practice in complex media performance 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.

BCA 518 Advanced Radio and Television News 3(2-2)
Techniques of news gathering, reporting, and interviewing for electronic media. Prerequisite: BCA 316 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. Repeatable up to 9 hours when content does not duplicate previous special topics studies. Prerequisite: 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.

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.

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. Prerequisite: BCA 318 or BCA 223; 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 when content does not duplicate previous special topics studies. Prerequisites: BCA 288; limited to juniors or above.

BCA 528 History and Analysis of Nonfiction Film 3(2-2)
History and techniques of nonfiction film and video. Historical and contemporary examples including news reels, propaganda films, and television documentaries.

BCA 529 Internship in Electronic Media-Film 2-6(Spec)
Directed work experience at participating media venues. May count 6 hours minimum toward a major, 3 hours toward a minor. Minimum 2.5 G.P.A. required. Prerequisite: prior written approval of BCA Intern Director; limited to juniors or above.

BCA 531 Industrial and Educational Video/Media Production 3(2-2)
Study and practice in advanced audio recording, mixing and editing for electronic media. Prerequisites: ENG 101 with a minimum grade of B or ENG 103/099 with a minimum grade of B in ELI 198 with a minimum grade of B; BCA 210 with a C or better.

BCA 532 Advanced Video/Multimedia Post-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.

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.

Descriptions of courses approved for the University Program appear in italic type.
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 relationships between organisms and their environment. At Beaver Island only. Also open to regular or 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. (University Program 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 University Program Group II laboratory requirement. Credit may not be earned in both BIO 101 and BIO 105. (University Program 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 (Group II-A). May be applied toward 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.

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. (University Program 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 110

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 218 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 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. (University Program 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 219; a GPA of 2.7 in biology classes.

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 technological 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)
Intermittent microbiology course focusing on bacterial cell structure and function, metabolism, genetics and phylogeny. 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 and CHM 342 (may be taken concurrently); or CHM 131 and CHM 132; or CHM 161 and CHM 211.

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: 6 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 University Program 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. Pre-Co-Requisite: 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. Pre/Co-Requisite: 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. Pre/Co-Requisite: 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. Pre/Co-Requisite: 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 132. 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: BIO 110.

BIO 391 Plant Physiology 4(3-3)
The physical and chemical basis of plant structure and function. Prerequisites: CHM 120, CHM 127, and CHM 542 (may be taken concurrently); or CHM 131 and CHM 132; or CHM 161 and CHM 211.

BIO 392 Mammalian Physiology 4(3-3)
The functioning of the mammalian body and its component parts, with an emphasis on human systems. Prerequisites: 45 credits completed; BIO 208; one of: CHM 132, 161, 342.

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 50 hours of A average. Philosophy, techniques, and methods of research. See instructor by the middle of the semester prior to enrollment to design the project and sign the contact. Prerequisite: Registration requires approval of department chairperson.

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)
A seminar course covering variable topics in an area of biomedical science. An in-depth study of current research in specified 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.

BIO 490 Biomedical Sciences Capstone Seminar 1-2(Spec)
A seminar course covering variable topics in an area of biomedical science. Prerequisites may take this course for a 2 credit maximum. Repeatable for a maximum of 6 credits. Prerequisites: BIO 324, 326, 392.

BIO 495 Undergraduate Internship in Biology 1-4(Spec)
A seminar course covering variable topics in an area of biomedical science. Prerequisites may take this course for a 2 credit maximum. Repeatable for a maximum of 6 credits. Prerequisites: BIO 324, 326, 392.

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/linear regression. Prerequisites: Twelve (12) hours of biology. 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 Education Opportunities 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.

BIO 508 Modern Concepts in Biological Science for Elementary Teachers 3(3-0)
For teachers of grades K-8. 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(3-3)
Anatomy, taxonomy, physiology, natural history, and ecology of fishes with laboratory emphasis on fishes of the Great Lakes region. Prerequisites: BIO 218.

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(Spec)
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 518 Animal Behavior 3-2(Spec)
Behavior in invertebrate and vertebrate organisms related to genetics, morphology, and the ecology of animal populations. Prerequisite: one year of biology.

BIO 521 Fresh Water Algae 4(2-4)
Ecology, 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).

BIO 527 Limnological Methods 2(0-4)
A quantitative examination of the physical, chemical and biological aspects of lake ecosystems. Prerequisites: BIO 208, BIO 525.

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 583 Comparative Anatomy 1(3-3)
A study of the structures and functions of various animals. Prerequisites: BIO 208 and BIO 525 or BIO 527.

BIO 584 Histology 3(2-3)
Study of the principal tissues of vertebrates.

BIO 586 Ecology 3(3-2)
Survey of evolution, taxonomy, behavioral ecology, physiological ecology, conservation biology, and management as these relate to Class Mammalia. Prerequisites: BIO 218 or graduate status.

Descriptions of courses approved for the University Program appear in italic type.
BIO 541 Wildlife Biology and Management 4(2-4)
Principles of nervous system function: cytology, electrophysiology, ion channels, membrane potentials, neurochemistry, synaptic function and its modification, sensory physiology. 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 micrography. 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 4(2-4)
The biology of woody plants including: identification, anatomy, physiology, systematics, and ecology. Students will learn Michigan native trees and shrubs and select cultivars. Prerequisites: BIO 203.

BIO 558 Natural Resources Management 2(Spec)
Research and management of fisheries, wildlife, forests, and watersheds through field trips and presentations by specialists. Prerequisites: Graduate status or BIO 340.

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.

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.

BIO 577 Hematology and Immunohematology 3(2-3)
Concepts of hemopoiesis 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 208 and BIO 392.

BIO 590 Cardiovascular Physiology 3(3-0)
Basic principles of normal mammalian cardiovascular physiology. Prerequisite: BIO 392.

BIO 591 Neurophysiology 3(3-0)
Principles of nervous system function: cytology, electrophysiology, ion channels, membrane potentials, neurochemistry, synaptic function and its modification, sensory physiology. Prerequisites: BIO 392.

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.

BIO 597 Special Topics In Biology 1-9(Spec)
Prerequisite. See Class Schedule.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

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 4(3-2)
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. (University Program 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.

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.

Descriptions of courses approved for the University Program appear in italic type.
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. 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.

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 not normally included in existing courses, with current topics listed in the semester Class Schedule. Repeatable up to 12 credits with different topics. Prerequisites: See Class Schedule.

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 Integrated Applications 3(3-0)
Development of advanced information processing skills and techniques using integrated office application software. Transfer credit not accepted. Prerequisites: Keyboarding skill level of 30 gross words a minute.

BIS 221 Computers in Business I 3(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.

BIS 228 Computer Programming-COBOL 3(3-0)
Introduction to 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 on-site 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 265.

BIS 280 Information Processing and Management 3(3-0)
Applications in advanced information processing, voice input, desktop publishing, office management, and emerging office technology. Transfer credits not accepted for prerequisites. Prerequisite: BIS 228.

BIS 286 Applied Graphics, Photos, and Multimedia 3(3-0)
Designing, developing, evaluating, and editing of computer-generated, business-oriented graphics and digitized photos to enhance display of visuals in documents and multimedia presentations. Recommended: BIS 104 or CPS 100 or BIS 221 or BIS 255.

BIS 297 Special Studies In Business Information Systems 1-12(Spec)
Selected topics not normally included in existing courses, with current topics listed in the semester Class Schedule. Repeatable up to 12 credits with different topics. Prerequisites: See Class Schedule.

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 either 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.

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 104 or CPS 100 or BIS 221 or BIS 255; 56 semester hours completed and listed on a signed major or minor.

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; 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 Career and Technical Education 3(3-0)
Curriculum development and planning, vocational curriculum development, management of vocational programs, learning and instruction. BIS 350 is required before student teaching. Prerequisites: 56 semester hours completed; admission to Teacher Education Program; listed on signed major.

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: Listed on a signed major or minor; 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 major or minor; 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.

BIS 358 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 392 Writing Your Business Plan 3(3-0)
A written business plan will be developed describing a potential business 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: BIS 297. 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 not normally included in existing courses, with current topics listed in the semester Class Schedule. Repeatable up to 12 credits with different topics. Prerequisites: See Class Schedule.

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 401 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; 56 hours completed; either admission to Professional Business Studies or listed on 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 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 Business Application Development 3(3-0)
Development of three-tiered client/server applications in 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; 56 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: MKT 312; MKT 300 or MKT 220; 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 using 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 theories 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 480 Telecommunications Management 3(3-0)
Management issues and practical business applications in telecommunications 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 a 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. Prerequisites: permission of instructor; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 497 Special Studies in Business Information Systems 1-12(Spec)
Selected topics not normally included in existing courses, with current topics listed in the semester Class Schedule. Repeatable up to 12 credits with different topics. Prerequisites: See Class Schedule.

BIS 500 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. 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: BIS 350 or admission to MBE.

BIS 597 Special Studies in Business Information Systems 1-12(Spec)
Selected topics not normally included in existing courses, with current topics listed in the semester Class Schedule. Repeatable up to 12 credits with different topics. Prerequisites: See Class Schedule.

For graduate level course descriptions above 600, 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 686 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. (University Program 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. (University Program 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 235; 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)
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. (University Program 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 identifies 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.

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 studied primarily through case studies. Common construction contract clauses reviewed. 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. (University Program Group IV-C)

BLR 390 Law of Enterprise Organization 3(3-0)
Survey of laws regulating the creation, operation, and termination of agencies, 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. Specific topic will be listed on the student's transcript. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

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. Professional topics target applications in trust administration, accounting, and personal financial planning. Identical to FIN 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.

BLR 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; 86 semester hours.

BLR 521 Environmental Law and Policy 3(3-0)
A survey of environmental laws and policies that affect business decision making, stressing macroenvironmental considerations and major Michigan environmental issues. Prerequisites: BLR 202 or BLR 235 or ENV 101; completion of 86 hours; admission to Professional Business Studies or listed on signed major or minor or permission of MBA director or MBE advisor.

BLR 565 The International Legal Environment of Business 3(3-0)
Examines global legal environments that affect business and international business relationships. Prerequisites: BLR 202 or BLR 235; 86 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor or graduate status.

BLR 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 transcript. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

BLR 600 Legal and Social Environment of Business 3(3-0)

BLR 631 Public Policy and Regulated Industries 3(3-0)

Business (BUS)

See the College of Business Administration 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.

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 202 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; Prerequisite/Co-requisites: FIN 302, MGT/MKT 303, MKT 304.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

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 691 Management Consulting: Client Relations 2(2-0)

BUS 692 Management Consulting: Diagnosis 2(2-0)

BUS 693 Management Consulting: Measurement 2(2-0)

BUS 694 Management Consulting: Implementation 2(2-0)

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.

CDO 130 Normal Speech and Language Acquisition 3(3-0)
Normal acquisition of language and speech by children examined on the basis of current linguistic theory. (University Program Group III-A)

CDO 230 Introduction to Speech, Language, and Hearing Disorders 3(3-0)
Aspects of speech-language pathology and audiology for elementary, secondary, and special education teachers, parents, and allied professionals in the management of speech, language, and hearing disorders. This course is approved for offering in a distance learning format.
CDO 278 Descriptive Phonetics 2(2-0)
Broad and narrow transcription of normal and disordered American English speech sound production using the International Phonetic Alphabet. This course is approved for offering in a distance learning format.

CDO 297 Special Topics in Communication Disorders 1-12(Spec)
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. This course is approved for offering in a distance learning format.

CDO 331 Introduction to Audiology 3(3-0)
Anatomy and basic psychophysics of hearing; pathologies causing hearing loss; quantitative measurements of hearing; practice in testing.

CDO 335 The Anatomy and Physiology of Speech and Hearing 4(4-0)
Anatomical and neuroanatomical structures and functions for speech and hearing. This course is approved for offering in a distance learning format.

CDO 338 Introduction to Articulation and Phonological Disorders 3(3-0)
Children's normal and disordered articulation and phonological disorders including neureanatomical development, analysis, treatment, related research, and integration with other areas of communication will be discussed. Prerequisites: CDO 278, CDO 279, CDO 335.

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)
Exploration of the diagnostic process in speech and language including formal and informal assessment methods and tools and strategies for analysis/interpretation of diagnostic findings. Prerequisites: CDO 230, CDO 278, CDO 330, CDO 335, CDO 338, CDO 340.

CDO 431 Audiologic Rehabilitation 3(3-0)
Habilitative and rehabilitative issues/approaches for persons with hearing loss, including hearing aids, cochlear implants, widetreading, conversational strategies, auditory training, speech/language intervention, psychosocial adjustment, and education. Prerequisite: CDO 331.

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.

CDO 439 Clinical Methods in Speech Language Pathology 3(3-0)
Classroom lecture integrating 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.

CDO 463 Introduction to Auditory Phonetics 2(2-0)
Physical bases of sound and the acoustic characteristics of speech production and perception. Prerequisites: CDO 278.

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.

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. Prerequisite: 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.

CDO 513 Voice Disorders/Laryngectomy 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.

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 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.

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)
Overt and covert characteristics of stuttering behavior including their prevention, etiology, and modification. Prerequisites: 30 hours of undergraduate coursework in CDO; admission to the graduate program in SLP.

CDO 545 Communication Disorders and Aging 3(3-0)
Theoretical foundations for communication disorders and aging. Functional communication approaches to gerontological audiology and speech-language pathology; a continuum of care incorporating prevention and intervention.

CDO 550 Communication Assessment and Intervention in Children with Autism Spectrum Disorders 3(3-0)
This course examines procedures for assessment of communication, language, and speech of students 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.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

CDO 569 Continuing Registration for Final Research Project 1(1-0)

CDO 623 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 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 Audiology 3(3-0)

CDO 752 Amplification for the Hearing Impaired 3(3-0)

CDO 754 Pediatric Audiology 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)

Descriptions of courses approved for the University Program appear in italic type.
Counselor Education and Personal Development (CED)

See the Department of Counseling and Special Education 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.

CED 503 Introduction to Community Agency Counseling 3(3-0)
An overview of issues and trends in community agency counseling. Topics include: history, professional orientation, philosophy, finance, administration, community resources and special concerns.

CED 504 Introduction to School Counseling 3(3-0)
History and philosophy of school counseling programs. Role and function of school counselors.

CED 505 Orientation to the Counseling Profession 1(1-0)
Orient students to the profession by examining history, identity, and process of becoming a professional counselor in a diverse society. Prerequisites: Graduate Status.

CED 515 Basic Group Participation I 1(Spec)
Facilitated group counseling where students experience being in the role of client/group participant. CR/NC only.

CED 520 Personal Growth and Development 2(Spec)
Personal growth group without the usual restrictions on verbal expression of thought and feeling, utilizing Basic Encounter technique to help participants increase awareness and acceptance of self and others.

CED 526 Families with Exceptional Children 3(3-0)
An introduction to theory and skills for developing collaborative relationships with families of children with special needs. Both cognitive and experiential approaches will be used. Prerequisites: SPE 530, and senior or graduate status.

CED 540 Counseling for Addictions 3(3-0)
Presentation and application of basic theories, techniques and resources for dealing with a broad range of addictive behavior, both substance related and behaviorally focused. Prerequisites: Senior or graduate status.

CED 545 School Counseling Seminar 3(3-0)
Discussion and individual investigation into topics and critical incidents germane to schools. Recommendations and solutions by professionals in the field are reviewed. Prerequisites: CED 504.

CED 551 Counseling with Children 3(3-0)
Survey of specialized skills for counseling with children. Emphasis upon the modification of counseling interventions to meet the needs of elementary aged children. Prerequisite: Junior or graduate status.

CED 580 Seminar: Professional Topics 1-12(Spec)
Special topics that are germane to the fields of personal development and counseling.

CED 583 Counseling Aspects of Sexuality 3(3-0)
An introduction to the dynamics of human sexual dysfunctions and the counseling appropriate for therapeutic intervention.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

CED 605 The Marriage and Family Therapist 3(3-0)

CED 608 Understanding and Working with Couples and Families 3(3-0)

CED 610 Career Development and Counseling 3(3-0)

CED 611 Developmental Career Counseling 3(2-1)

CED 612 Work and Career in a Global Society 3(3-0)

CED 619 Continuing Registration for Final Research Project 1(1-0)

CED 620 Introduction to Multicultural Issues in Counseling 3(3-0)

CED 621 Orientation to a Culturally Diverse Society 3(3-0)

CED 630 Counseling Ethics and Professional Issues 3(3-0)

CED 640 Standardized Tests 3(3-0)

CED 650 Theories and Techniques of Group Counseling 3(3-0)

CED 655 Human Relations Skills 3(3-1)

CED 660 Counseling Techniques 3(3-0)

CED 668 Theory and Process of Family Therapy 3(3-0)

CED 670 Independent Study 1-12(Spec)

CED 677 Theories of Counseling 3(3-0)

CED 680 Seminar: Professional Topics 1-12(Spec)

CED 684 Grief, Loss and Trauma 3(3-0)

CED 685 Counseling Aspects of Grief and Loss 3(3-0)

CED 690 Supervised Experience in Counseling 3(1-3)

CED 691 Internship in Counseling 1-6(Spec)

CED 695 Research for Counseling and Special Education 3(3-0)

CED 696 Independent Research 3(Spec)

CED 698 Thesis 1-6(Spec)

CED 750 Facilitating of Groups 3(3-1)

CED 751 Facilitation of Play Therapy Sessions 3(3-1)

CED 765 Professional Counseling and Consulting 3(3-0)

CED 780 Seminar: Professional Topics 1-12(Spec)

CED 790 Advanced Supervised Experience in Counseling 3(1-3)

CED 791 Advanced Internship in Counseling 3(1-4)

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 University Program Group II laboratory requirement. (University Program 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. (University Program 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 offerings in a distance learning format. (University Program 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. Prereq/Co-Reqs: CHM 111 or CHM 120. (University Program Group II-B)

CHM 131 Introduction to Chemistry I 4(3-3)
Fundamental concepts of chemistry including stoichiometry, gas laws, thermochemistry, and molecular structure. CHM 131 and 132 are recommended to constitute the standard one-year course for science majors. Recommended: High school Algebra II or MTH 107 (preferably with an A or better); high school chemistry or CHM 120. (University Program Group II-B)

CHM 132 Introduction to Chemistry II 4(3-3)
Continuation of CHM 131 including solutions, kinetics, equilibrium, weak acids and bases, thermodynamics, and electrochemistry. Prerequisite: CHM 131. Recommended: A grade of C or better in CHM 131.

CHM 161 Principles of Chemistry 5(4-4)
Intensive introduction to chemical principles for the well-prepared, motivated student. Satisfies University Program Group II laboratory requirements. Recommended: High school Algebra II or MTH 107 (preferably with an A or better); high school chemistry or CHM 120. (University Program Group II-B).

CHM 171 Perspectives In Chemistry 1-6(Spec)
Selected topics in chemistry for the nonscientist. May be repeated for a total of 6 credits when the content is not a duplication of previous topics. No credit toward major or minor.

CHM 172 Introduction to the Techniques of Research 1-3(Spec)
Introduction to laboratory techniques used in research for beginning students in chemistry and for participants in other summer research programs at the beginning level.

CHM 211 Quantitative Analysis 4(3-5)
Analysis and interpretation of quantitative chemical information from volumetric, electrochemical, spectroscopic, and chromatographic techniques. Prerequisite: CHM 132 or 161. Recommended: MTH 107.

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.

Descriptions of courses approved for the University Program appear in italic type.
CHM 342 Survey of Organic Chemistry 4(3-3)
Elementary course covering the field of organic chemistry. Course meets the needs for entrance to some professional schools. No credit toward chemistry major or minor. Prerequisites: One of: CHM 120, 127, or CHM 132 or CHM 161.

CHM 345 Organic Chemistry I 3(3-0)
Overview of common organic reactions. Reactions of alkanes, alkenes, alkynes, and alkyl halides, Ultraviolet/Visible, Infrared, and Nuclear Magnetic Resonance spectroscopy, mass spectrometry. Prerequisite: CHM 132 or 161.

CHM 346 Organic Chemistry II 3(3-0)
Continuation of CHM 345. Overview of common organic reactions of aromatic compounds, alcohols, carbonyl compounds, and amines. Prerequisite: CHM 345.

CHM 349 Introduction to Organic Chemistry Lab 2(0-8)

CHM 351 Physical Chemistry I 3(3-0)
Fundamental principles of chemistry based on a quantitative approach. Classical thermodynamics of gases and solutions, chemical equilibria, and electrochemistry. Prerequisites: CHM 211, PHY 146; Corequisite MTH 233

CHM 352 Physical Chemistry II 3(3-0)
Fundamental principles of chemistry based on a quantitative approach. Quantum mechanics, spectroscopy, and kinetics. 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; Pre/Co-Requisite: PHY 131 or 146.

CHM 357 Physical Chemistry Laboratory 2(0-4)
Laboratory techniques with advanced data analysis and error propagation in thermochemistry, phase equilibrium, kinetics, spectroscopy, surface effects and computational chemistry. Pre/Co-Requisite: CHM 352.

CHM 371 Special Topics in Chemistry 1-6(Spec)
Special topics in chemistry presented at an undergraduate level. Course may be taken for credit more than once as long as course content is not duplicated; total credit not to exceed six hours. Prerequisites: CHM 132 or 161.

CHM 421 Survey of Biochemistry 3(3-0)
Introductory one-semester Biochemistry course. Intended for students in allied health fields, dentistry, and some biology programs. No credit toward Chemistry/Biochemistry major, Biology/Biomedical Sciences major or Chemistry minor. Prerequisites: CHM 342 or 346.

CHM 425 Introductory Biochemistry 3(3-0)
Structure, function, and metabolism of proteins, carbohydrates, lipids, and nucleic acids. Prerequisites: CHM 346.

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 352 or CHM 161; PHY 131 or PHY 146.

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.

CHM 511 Advanced Analytical Chemistry 4(2-4)
Spectroscopic, electrochemical, and other techniques as applied to the field of analytical chemistry. Prerequisites: CHM 211. Recommended: CHM 352 or CHM 355.

CHM 513 Chemistry of Natural Waters 3(Spec)
Fundamentals of laboratory, field analysis of water; application of data to environmental studies. Prerequisite: permission of instructor.

CHM 521 Fundamentals of Biochemistry 3(3-0)
Structure, function, and metabolism of proteins, carbohydrates, lipids, and nucleic acids. Prerequisites: CHM 346.

CHM 522 Intermediate Biochemistry 3(3-0)
Continuation of CHM 521. Material covered will include in-depth exploration of metabolism of biomacromolecules and biochemical processes requiring their use. Prerequisites: CHM 521.

CHM 527 Biochemistry Laboratory 1-4(Spec)
Isolation, characterization, and analysis of proteins, carbohydrates, lipids, vitamins, and nucleic acids using chromatographic, electrophoretic, and spectroscopic techniques. Prerequisite: CHM 211, CHM 349. Pre-Co-Requisite: CHM 425 or CHM 521.

CHM 528 Bioanalytical Techniques Laboratory 2(1-3)
Laboratory analysis of biochemical materials using volumetric, electroanalytical, spectroscopic, and chromatographic techniques. Prerequisites: CHM 425 or 521. Pre/Co-Requisite: 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 organometalic compounds. Prerequisites: CHM 351. Recommended: CHM 352.

CHM 541 Intermediate 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. Recommended: CHM 351 or 355.

CHM 547 Advanced Chemistry Laboratory 2(1-3)
Advanced synthesis, separation, and structure determination of organic and inorganic compounds. Prerequisite: CHM 349, 351.

CHM 551 Properties and Applications of Modern Materials 3(3-0)
Properties, structure, and applications of modern materials such as those with special nanostructures 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, mathematics or engineering degree program.

CHM 552 Synthesis and Characterization of Modern Materials 3(3-0)
A survey of the major classes of materials, focusing on the techniques used for synthesis and characterization and the relationship between structure and properties. Prerequisites: CHM 351, 346.

CHM 555 Advanced Physical Chemistry 3(3-0)
Advanced development and application of physical theories using a statistical mechanical approach towards understanding of molecular energetics and kinetics. Prerequisites: CHM 352 or 355; MTH 233.

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.

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.

CHM 563 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 564 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 senior.

CHM 565 Polymer Processing 1(1-0)
An introduction to polymer processing; fabrication of thermoplastics and thermosets using conventional and specialized techniques. Prerequisites: CHM 346. CHM 352.

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.

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)
Special topics in chemistry, presented in short course or workshop format. Course may be taken for credit more than once; total credit not to exceed nine hours. CR/NC only. Prerequisites: Senior level undergraduate or graduate standing in chemistry or biochemistry programs.

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.

CHM 601 Chemistry Seminar Presentations 2-0
Special topics in chemistry, presented in short course or workshop format. Course may be taken for credit more than once; total credit not to exceed nine hours. CR/NC only. Prerequisites: Senior level undergraduate or graduate standing in chemistry or biochemistry programs.

CHM 602 Scientific Writing in Chemistry 1-0
General principles of scientific writing, and literature review. Prerequisites: CHM 346 or 349.

CHM 602 Scientific Writing in Chemistry 1-0
General principles of scientific writing, and literature review. Prerequisites: CHM 346 or 349.

CHM 611 Advanced Topics in Analytical Chemistry 1-9(Spec)

CHM 618 Continuing Registration for Final Research Project 1-10

CHM 624 Advanced Topics in Biochemistry 1-9(Spec)

CHM 631 Coordination Chemistry 3(3-0)
CHM 632 Advanced Topics in Inorganic Chemistry 1-9(Spec)
CHM 641 Advanced Topics in Organic Chemistry 1-9(Spec)
CHM 651 Advanced Topics in Physical Chemistry 1-9(Spec)
CHM 655 Quantum and Computational Chemistry 3(3-0)
CHM 663 Macromolecular Synthesis 1(1-0)
CHM 664 Chemical Structure and Reactivity of Polymers 1(1-0)
CHM 665 Advanced Topics in Polymer Chemistry 1-9(Spec)
CHM 666 Solution Properties of Polymers 1(1-0)
CHM 668 Physical Structure of Polymers 1(1-0)
CHM 669 Polymer Rheology 1(1-0)
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)
CHM 678 Organic Reactions 1(1-0)
CHM 679 Theory of Spectroscopy 1(1-0)
CHM 680 Biochemical Reactions 1(1-0)
CHM 682 Principles of Synthesis 1(1-0)
CHM 683 Thermodynamics 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)

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. (University Program Group IV-B)
CHN 102 Elementary Chinese II 4(4-0)
Basic language skills. Continuation of CHN 101. Prerequisites: CHN 101. (University Program Group IV-B)

Communication (COM)

See the Department of Communication and Dramatic Arts for more information.
COM 100 Communication and Society 1(1-0)
This course introduces students to a variety of communication concepts and career possibilities in addition to the role communication plays in contemporary society.
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 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 225 Introduction to Communication in Virtual Environments 3(3-0)
This course addresses the implications of communicating in virtual worlds. Concepts to be addressed include: identity construction, online relationships, collaborative work environments, and ethics.
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 257 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 259 Practicum in Debate/Forensics 2-8(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 352 Communication and Social Influence 3(3-0)
This course explores how language and public speeches shape decisions, create political support, define presidential leadership, repair public images, and celebrate community values.
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 361 Interpersonal Communication 3(3-0)
Assists the student in understanding the interpersonal communication process and in analyzing barriers to its effectiveness.
COM 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 WST 382. Credit may not be earned in more than one of these courses.
COM 363 Principles and Types of Interviewing 3(3-0)
Study of establishing and achieving communication goals in a variety of formalized interviewing contexts. Emphasis given to question development and interviewing skills.
COM 365 Persuasion and Social Influence 3(3-0)
Application of theories and principles underlying attitude change. This course is approved for offering in a distance learning format.
COM 367 Nonverbal Communication 3(3-0)
Examines the non-language dimensions of communication in several social settings: dyadic, small group, crosscultural, and subcultural.
COM 369 Health Communication 3(3-0)
This course will assist students in increasing their understanding of and the skills of communication as applied to the health professions.
COM 401 Capstone in Communication 3(3-0)
Designed to help students integrate their communication knowledge and develop higher order thinking and interaction skills by applying them to professional and real-world situations. Prerequisites: COM 251, COM 301 with a grade of C or better; COM 353, COM 357, and COM 361; plus 9 more hours toward the COM major; senior status.
COM 461 Communication in Leadership 3(3-0)
Theory and practice in leadership skills with special emphasis on oral communication. Examines leadership in both voluntary and non-voluntary organizations. Prerequisites: Grades of C (2.0) or better in COM 251, COM 301; or LDR 200 and junior standing. This course is approved for offering in a distance learning format.
COM 464 Communication Internship 1-6(Spec)
Designed to apply a variety of classroom concepts and skills within a supervised organizational setting. Prerequisite: prior written approval of COM internship coordinator. Limited to junior and senior COM majors and minors.
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.
COM 490 Independent Study Each 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).
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 381.

COM 527 Political Communication 3(3-0)
This course considers the influence of political communication in American society. The course addresses the connections between political discourse, the American people, and the media. Prerequisites: COM 251, 301 with a grade of C or better; junior standing.

COM 555 Special Topics in 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.

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. Prerequisite: COM 251, 301 with grades of C or better.

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.

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: COM 251, 301 with grades of C or better.

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: COM 251, 301 with grades of C or better.

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: COM 251, 301 with grades of C or better; COM 264.

COM 569 Communication in the Classroom 3(3-0)
Integrated research from several fields describing communication patterns among students and teacher-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: COM 251, 301 with grades of C or better.

COM 600 Introduction to Research and Graduate Study in Communication and Dramatic Arts 3(3-0)

COM 601 Research Design in Communication 3(3-0)

COM 602 Qualitative Research Methods 3(3-0)

COM 603 Professional Seminar in Communication 3(3-0)

COM 619 Continuing Registration for Final Research Project 1-1(Spec)

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 Communication 3(2-2)

COM 798 Thesis 1-6(Spec)

Descriptions of courses approved for the University Program appear in italic type.
CPS 280 Alternative Programming Languages 1-6(Spec)
Intensive study of one or more selected programming languages, such as APL, LISP and ADA. Languages presented will be announced in the Phase I Class Schedule Booklet. Students may not earn credit for a language in which they already have credit in any of the primary programming sequences. Prerequisites: CPS 181 or ITC 111.

CPS 282 Introduction to Multimedia 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.

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.

CPS 360 Computer Design and Architecture 3(3-0)
Logic gates, design and analysis of digital circuits, clocked digital circuits, processor micro-architecture, instructions sets and addressing modes, virtual memory. Prerequisite: CPS 210.

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 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.

CPS 395 Internship in Computer Science 1-9(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. Prerequisites: 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. Prerequisites: 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, processors. Prerequisites: CPS 340, CPS 360.

CPS 480 Introduction to Artificial Intelligence 3(3-0)

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 282.

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 the M.S. in Computer Science except the Teaching Minor in Computer Science or 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 towards any degree program in Computer Science. Prerequisite: conditional admission into CPS M.S. program.

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 of discrete systems using computer simulation languages. Performance evaluation of computer, industrial and engineering systems. Prerequisite: CPS 181; STA 282 or STA 382.

CPS 541 Databases 3(3-0)
Principles and logical organizations of databases, database management systems, project involving a student-designed database. Prerequisites: CPS 340 and CPS 370; or ITC 441 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. RISC versus CISC debate. Parallel Architectures. Prerequisite: CPS 360.

CPS 565 Computer Networks 3(3-0)

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 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.

CPS 585 Applied Data Engineering 3(3-0)
Study of data engineering concepts and techniques, including data pre-paration, storage and retrieval, analysis and mining, security, visualization, and applications. Use of data analysis tools. Prerequisites: STA 382.

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 number 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.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

CPS 603 Computer Information Systems 3(3-0)

CPS 610 Advanced Software Design and Development 3(3-0)
CPS 611 Software Verification and Validation 3(3-0)
CPS 612 Software Project Management 3(3-0)
CPS 613 Specification of Software Systems 3(3-0)
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 640 Theory of Automata and Formal Languages 3(3-0)
CPS 641 Advanced Topics in Databases 3(3-0)
CPS 650 Theory and Practice of Compiler Construction 3(3-0)
CPS 660 Advanced Computer Organization 3(3-0)
CPS 665 Computer Networks II 3(3-0)
CPS 670 Operating Systems 3(3-0)
CPS 675 Advanced Topics in Computer Graphics 3(3-0)
CPS 676 Computer Vision 3(3-0)
CPS 680 Artificial Intelligence 3(3-0)
CPS 681 Advanced Topics in Artificial Intelligence 3(3-0)
CPS 685 Pattern Recognition and Data Mining 3(3-0)
CPS 695 Professional Field Experience 1-6(Spec)
CPS 696 Special Topics in Computer Science 1-6(Spec)
CPS 697 Independent Study 1-6(Spec)
CPS 798 Thesis 1-6(Spec)

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; rhythmical patterning and development of style.

DAN 105 Social Dance I 1(Spec)
Introduction to social dance forms and styles.

DAN 106 Country Line Dance 1(Spec)
Introduction to the basic elements and skills used in the performance of country line dance.

DAN 107 Swing Dance 1(Spec)
Introduction to the basic steps and styles of swing dance.

DAN 132 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 principles and techniques of stage form, style, and projection necessary for dance performance. Prerequisite: Audition.

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.

DAN 233 Dance Technique II 2(1-2)
Intermediate technique. Prerequisite: DAN 133.

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.

DAN 237 Tap II 1(Spec)
Continuation of DAN 137. Tap I, leading to the development of intermediate tap techniques. Prerequisites: DAN 137.

DAN 240 Dance Repertory Theatre II 2-4(Spec)
Continuation of DAN 140. Prerequisite: DAN 140.

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.

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.

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.

DAN 430 Dance Production 3(2-2)
Basic techniques of lighting, costuming, make-up, programming, and general design of a dance concert. Class, projects, guest speakers, and field trips.

DAN 435 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.

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; junior 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.

Degrees in Health Administration (DHA)

For graduate level course descriptions above 600, 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 898 Dissertation Design, Implementation, Defense and Reporting 1-12(Spec)

Descriptions of courses approved for the University Program appear in italic type.
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. Credit on the economics major will not be given if this course is taken after ECO 201 or ECO 202 or ECO 203. (University Program Group III-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.

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. (University Program Group IV-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. (University Program Group IV-A)

ECO 266 Economics of Poverty and Discrimination 3(3-0)
Economic analysis of the causes of poverty and alternative government solutions. Discrimination in education, housing and labor markets and their relationship to other social problems.

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. (University Program 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. (University Program 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.

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 204; ECO 202 or 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 202 or 235, ECO 202 or 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 204; 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 politicoeconomic change. An analysis of capitalism, 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 their enforcement; public 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 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.
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 204; 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.
ECO 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.
ECO 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 560.
ECO 590 Seminar Readings 1-3(Spec)
Elective honors course for majors or minors in economics. Recommended: 12 hours of economics with B average.
ECO 591 Seminar Research Studies 1-3(Spec)
Independent study on special problems for majors and minors in economics. Prerequisite: permission of instructor. Recommended: 9 hours of 300- to 500-level economics.
ECO 597 Special Studies in Economics 1-3(Spec)
Experimental courses to cover material of special interest to both undergraduates and graduates not covered by courses in the regular curriculum. Prerequisite: permission of instructor.
For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.
ECO 600 Introduction to Advanced Economic Analysis 3(3-0)
ECO 601 Advanced Environmental Economics 3(3-0)
ECO 603 Economic Effects of Urbanization and Technology 3(3-0)
ECO 606 Seminar in Economic History 3(3-0)
ECO 610 Seminar in Economic Thought 3(3-0)
ECO 614 Seminar in Labor Economics 3(3-0)
ECO 616 Advanced Microeconomic Theory 3(3-0)
ECO 619 Continuing Registration for Final Research Project 1(1-0)
ECO 620 Advanced Macroeconomic Theory 3(3-0)
ECO 622 Seminar in Economic Growth and Development 3(3-0)
ECO 625 Firm Behavior and Game Theory 3(3-0)
ECO 630 Comparative Economic Systems 3(3-0)
ECO 640 Special Topics in Economic Issues 3-6(Spec)
ECO 650 American Financial Institutions 3(3-0)
ECO 655 Seminar in International Economics 3(3-0)
ECO 657 Advanced Investment Analysis 3(3-0)
ECO 660 Public Finance and Fiscal Policy 3(3-0)
ECO 670 Research Methods in Economics 3(3-0)
ECO 685 Econometric Applications 3(3-0)
ECO 690 Independent Research 1-3(Spec)
ECO 798 Thesis 1-6(Spec)

Educational Leadership (EDL)

See the Department of Educational Leadership for more information.

EDL 565 Legal Aspects of Student Discipline 3(3-0)
Legal procedures for administering student discipline and methods of providing a safe and orderly learning environment. Prerequisites: senior or graduate status.
EDL 566 Introduction to School Law 3(3-0)
Educational law as it relates to teaching.
EDL 567 Principles of Community Education 3(3-0)
Concepts, programs, and practices in community education.
EDL 592 Workshop in Educational Administration 1-8(Spec)
Identification and study of the problems of school administration.
For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.
EDL 600 Research in Administration 3(3-0)
EDL 609 Administration of Volunteer Programs 3(3-0)
EDL 610 Grants and Fund Procurement 3(3-0)
EDL 615 Educational Technology for Administrators 3(3-0)
EDL 619 Continuing Registration for Final Research Project 1(1-0)
EDL 620 Administration Within Diverse Populations 3(3-0)
EDL 622 Adult Literacy and Society 3(3-0)
EDL 624 Planning for Instruction in Nontraditional Settings 3(3-0)
EDL 626 The Adult Learner 3(3-0)
EDL 628 Administration of Adult and Continuing Education 3(3-0)
EDL 636 Higher Education Law 3(3-0)
EDL 645 Charter School Leadership 3(3-0)
EDL 650 Professional Studies: Special Topics 1-6(Spec)
EDL 651 Program Review and Evaluation 3(3-0)
EDL 652 Global Education Studies 3-12(Spec)
EDL 656 Public School Law 3(3-0)
EDL 660 Principles of Educational Administration 3(3-0)
EDL 661 School and Community Relations 3(3-0)
EDL 662 School Business Administration & Facilities Management 3(3-0)
EDL 663 Personnel Administration 3(3-0)
EDL 664 Public School Finance 3(3-0)
EDL 665 School Plant: Planning, Management, and Operation 3(3-0)
EDL 667 Administration of Community Education 3(3-0)
EDL 668 Educational Survey 2(2-0)
EDL 670 Administration of Elementary Schools 3(3-0)
EDL 671 Administration of Middle Schools 3(3-0)
EDL 672 Administration of Secondary Schools 3(3-0)
EDL 673 Administration of the School District 3(3-0)
EDL 674 Administration of Intermediate School Districts 3(3-0)
EDL 675 Administration of Special Education 3(3-0)
EDL 676 Administration of Community Colleges 3(3-0)
EDL 677 The American College Student 3(3-0)
EDL 679 Administration of School Transportation Systems 3(3-0)
EDL 680 Teaching in Higher Education Settings 3(3-0)
EDL 685 Introduction to Problem Solving in Educational Leadership 3(3-0)
EDL 687 Independent Study 1-2(Spec)
EDL 688 Independent Study 1-2(Spec)
EDL 689 Independent Study 1-2(Spec)
EDL 690 Administration of Elementary School Curriculum 3(3-0)
EDL 691 Administration of Middle School Curriculum 3(3-0)
EDL 692 Administration of Secondary School Curriculum 3(3-0)
EDL 695 Readings in Education 1-2(Spec)
EDL 698 Master’s Colloquium 3(3-0)
EDL 699 Leadership Internship 1-15(Spec)
EDL 700 Advanced Administrative Research 3(3-0)
EDL 731 Strategic Planning 3(3-0)
EDL 750 Professional Studies Topics 1-6(Spec)
EDL 757 Student Development Theory 3(3-0)
EDL 760 Leadership Theory and Practice 3(3-0)
EDL 763 Personnel Administration in Higher Education 3(3-0)
EDL 764 Financing of Higher Education 3(3-0)
EDL 766 Advanced Educational Law 3(3-0)
EDL 769 Negotiations in Education 3(3-0)

Descriptions of courses approved for the University Program appear in italic type.
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: HFD 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: HFD 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 350 or HDF 100 or PSY 220.

EDU 341 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. Prerequisites: 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 310; Pre- 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 II 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 280 or HDF 100 or PSY 220 (Special Education Majors must take PSY 220), EDU 290 (EDU 290 not required for Special Education majors), EDU 320, EDU 330, EDU 741, EDU 845, EDU 846, EDU 350, and EDU 354 and all major and minor requirements listed in the bulletin (additional requirements for Special Education Majors: SPE 455 and SPE 456 or SPE 457); 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 to be completed before student teaching: EDU 107, EDU 290, EDU 310, EDU 325 (not required for Music Majors), EDU 450, EDU 455, SPE 454 and SPE 456 and all major and minor requirements listed in the bulletin (additional requirements for Special Education Majors: SPE 455 and SPE 456 or SPE 457)

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 cognitive impairment" or a major in "teachers of students with cognitive impairment" are required to have SPE 126; PSY 220); and admission to Teacher Education.

Descriptions of courses approved for the University Program appear in italic type.
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 330, EDU 340; or EDU 450.

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 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, care and evaluation of materials in preschools. Methods appropriate to individual and 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, and evaluation techniques for fostering beginning reading and writing consistent with current research. Prerequisites: EDU 330.

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 330 or EDU 316.

EDU 533 Diagnosis and Treatment of Reading Difficulties 2(2-3)
Diagnostic procedures and use of remedial and developmental techniques. Exploration of the role of the specialist. Prerequisites: EDU 431, 532; Pre/Co-Req: EDU 538.

EDU 538 Coordination of the Language Arts with Reading 3(3-0)
Building the elements of listening, speaking, 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, Thinking, and Learning 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.

EDU 550 Driver Education I: Driver Task Analysis 3(3-0)
First of four courses to prepare driver education instructors and provide them with the content knowledge and skills necessary to teach driver education. Prerequisites: Permission of instructor.

EDU 551 Driver Education II: Developing Classroom Instructional Knowledge 3(3-0)
Second of four courses to prepare driver education instructors; knowledge and skills needed to implement classroom instruction, classroom management, and appropriate student evaluation. Prerequisites: EDU 550.

EDU 552 Driver Education III: Developing Vehicle Operational Skills 3(2-1)
Third of four courses to prepare prospective driver education instructors to conduct instruction which develops vehicle operational skills for the novice driver. Prerequisites: EDU 551.

EDU 553 Driver Education IV: Practicum 3(1-2)
Fourth of four courses preparing driver education instructors; classroom and in-car instruction in approved driver education programs under mentoring of cooperating driver education teachers. Prerequisites: EDU 552.

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.
### Engineering (EGR)

See the Department of Engineering and 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
- Finite state machines
  Prerequisites: EGR 120, MTH 130 or higher.

**EGR 210 Statics 3(3-0)**
The course will cover free body diagrams and equilibrium of particles and rigid bodies, forces in machines, and beams, friction, and applications to machines.
  Prerequisites: MTH 132; PHY 145; Pre/Co-Requisite: EGR 120.

**EGR 220 Engineering Dynamics 3(3-0)**
Fundamentals of engineering dynamics covering kinematics and dynamics of particles and rigid bodies. Prerequisites: EGR 251 with grade of C- or better, MTH 133.

**EGR 250 Strength of Materials 3(3-0)**
- Introductory course in mechanics of materials that covers mechanical stiffness and strain, deformations, torsion, bending and shearing stresses, and deflections of beams.
  Prerequisites: EGR 251 with grade of C- or better, MTH 133.

**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.
  Prerequisites: EGR 290 Co-requisite: MTH 232 or 334.

**EGR 298 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.
  Prerequisites: MTH 232, STA 382.

**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.
  Prerequisites: CHM 131 or 161, EGR 251 with grade of C- or better, MTH 132, 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: CHM 131 or 161, EGR 251 with grade of C- or better, MTH 133, PHY 146.

**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 283, 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/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 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-variant 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.

Education (EHS)
See the College of Education & Human Services for more information.

EHS 093 Basic Reading Skills 3(3-0)
Basic instruction and practice in reading speed, comprehension and vocabulary development. Enrollment limited to students notified of eligibility. 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.

EHS 102 Academic Learning Skills 2(2-0)
Provides information, materials and practice to assist students in improving study skills. Enrollment limited to students notified of eligibility.

EHS 103 Reading Improvement 3(3-0)
Provides instruction and practice to assist students in improving reading speed, vocabulary, and comprehension. Prerequisite: credit in EHS 093, satisfactory score on pre-test.

EHS 104 - Study Skills Nontraditional 2(2-0)
Provides techniques and practice to strengthen skills for studying and accumulating knowledge, and information on adult learning to foster academic success. Primarily for nontraditional students.

EHS 197 Special Topics 2(Spec)
Selected topics, problems, or issues of current interest will be presented, typically in workshop, seminar, or conference format. Prerequisite: permission of instructor.

English Language Institute (ELI)
See the Department of English Language and Literature for more information.

ELI 051 Integrated Skills I 5(5-3)
Development of basic English speaking, listening, reading, writing, and pronunciation skills through study of cultural themes. For intensive ELI students. CR/NC. Prerequisites: Admission to the ELI, equivalent placement on the ELI Placement Test.

ELI 052 Reading and Writing I 4(4-3)
A course in basic composition and reading skills for international students, with focus on vocabulary development, reading and writing fluency, and paragraph development. CR/NC Only. Prerequisites: Admission to the ELI and equivalent placement on the ELI Placement Test.

ELI 053 Grammar for International Students I 3(3-0)
An intensive English grammar class for non-native speakers enrolled in the English Language Institute at the beginning level. CR/NC only. Prerequisite: Admission to the ELI.

ELI 061 Integrated Skills II 5(5-3)
Development of intermediate English speaking, listening, reading, writing, and pronunciation skills through study of cultural themes. For intensive ELI students. CR/NC. Prerequisites: Admission to the ELI, equivalent placement on the ELI Placement Test, or ELI 051.

ELI 062 Reading and Writing II 4(4-3)
Intermediate composition and reading skills course for international students, focusing on vocabulary development, reading and writing fluency, and writing paragraphs and basic essays. CR/NC Only. Prerequisites: Admission to the ELI and equivalent placement on the ELI Placement Test, or ELI 052.

ELI 063 Grammar for International Students II 3(3-0)
An intensive English grammar class for non-native speakers enrolled in the English Language Institute at the intermediate level. CR/NC only. Prerequisites: Admission to ELI.

ELI 071 Integrated Skills III 5(5-3)
Intensive development of high intermediate/low advanced English speaking, listening, reading, writing, and pronunciation skills through study of cultural themes. For intensive ELI students. CR/NC. Prerequisite: Admission to ELI, equivalent placement on the ELI Placement Test, or ELI 061.

ELI 072 Reading and Writing III 4(4-3)
Low-advanced course for international students, focusing on development of reading and essay writing skills, including an introduction to writing with sources. CR/NC Only. Prerequisites: Admission to the ELI and equivalent placement on the ELI Placement Test, or ELI 062.

ELI 073 Grammar for International Students III 3(3-0)
An intensive English grammar class for non-native speakers enrolled in the English Language Institute at the intermediate to low-advanced level. CR/NC only. Prerequisite: Admission to ELI.

ELI 080 Basic ESL for International Students 1(1-2(Spec)
For non-native speakers of English, this course covers all basic skills of English as a Second Language: speaking, listening, reading, and writing. CR/NC only. Prerequisites: Department permission.

ELI 081 Listening and Speaking for International Students 4(4-0)
An advanced speaking and listening course for international undergraduate and graduate students who require further instruction in oral proficiency and aural comprehension skills. CR/NC Only. Prerequisite: TOEFL 500-547 (173-210 computer-based TOEFL) or equivalent placement on the CMU English Language Institute placement test, or successful completion of the CMU Intensive English Program, or Permission of the ELI director.

ELI 082 Academic Reading Skills for International Students 3(3-0)
For non-native speakers of English, this course focuses on developing proficiency in reading for academic purposes through improving reading comprehension, strategies, speed and vocabulary development. CR/NC Only. Prerequisites: TOEFL score of 500-547 (173-210 computer-based TOEFL) or equivalent placement on the CMU English Language Institute placement test, or successful completion of the CMU English Language Institute Intensive English Program, or permission of the ELI director.

ELI 083 Advanced Grammar for International Students 3(3-0)
An advanced course in English Grammar for international students who require further instruction to alleviate problems associated with speaking and thinking tasks. CR/NC Only, Prerequisites: TOEFL score of 500-547 (173-210 computer-based TOEFL) or equivalent placement on the CMU English Language Institute placement test, or successful completion of the CMU English Language Institute Intensive English Program, or permission of the ELI director.

ELI 084 Academic Writing for International Students 3(3-0)
For non-native speakers of English at the undergraduate and graduate levels, this course focuses on developing proficiency in writing English for academic purposes, CR/NC Only. Prerequisites: TOEFL score of 500-547 (173-210 computer-based TOEFL) or equivalent placement on the CMU English Language Institute placement test, or successful completion of the CMU English Language Institute Intensive English Program, or permission of the ELI director.

ELI 091 Oral Proficiency for Graduate Students 3(3-0)
An advanced speaking course for international graduate students who require further instruction in oral proficiency skills necessary to succeed in graduate studies. CR/NC Only. Prerequisites: TOEFL score of 500-547 (173-210 computer-based TOEFL) and/or placement into ELI 091 on the CMU English Language Institute placement test, or successful completion of ELI 081, or permission of the ELI director.

ELI 094 Writing Seminar for Graduate Students 3(3-0)
For non-native speakers of English at the graduate level, this course focuses on developing proficiency in the academic styles of writing encountered in graduate studies. CR/NC Only. Prerequisites: TOEFL score of 500-547 (173-210 computer-based TOEFL) and/or placement into ELI 094 on the CMU English Language Institute placement test, or successful completion of ELI 084, or permission of the ELI director.

Descriptions of courses approved for the University Program appear in italic type.
English Language and Literature (ENG)

ENG 099 Writing Workshop 1(1-0)
Individualized writing tutorial taken concurrently with ENG 103. Work may include grammar, mechanics, and spelling as well as finding, narrowing, and developing ideas for writing. 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. Corequisite: ENG 103.

ENG 100 Basic Writing 3(3-0)
An introductory course in analytic writing and the conventions of Standard Written English designed as the first semester of a two-semester sequence of freshman composition.

ENG 101 Freshman Composition 3(3-0)
Development of increasingly skilled nonfiction prose writing. Students prepare a variety of public texts by applying knowledge of composing processes, rhetorical strategies, and textual conventions. May be exempted or substituted by passing the Advanced Placement Test or approved CLEP examination in college composition. Prerequisites: ENG 100 or a satisfactory Freshman Writing Placement score.

ENG 103 Freshman Writing 3(3-0)
Development of skills in nonfiction prose writing that meets the university’s requirement for first-year writing competency; small class sizes and substantial individualized support. Alternative to ENG 101 and ELI 198; may be exempted or substituted by passing the Advanced Placement Test or approved CLEP examination in college composition. Prerequisites: ENG 100 or waiver of ENG 100, or a satisfactory Freshman Writing Placement score (51 or higher). Co-requisite: ENG 099.

ENG 134 Introduction to Literature 3(3-0)
Examination of the novel, short story, poetry, and drama. (University Program Group I-B)

ENG 175 The Nature of Language 3(3-0)
An introduction to the study of language in relation to social systems. Topics include linguistic structures, language acquisition, dialects, and language change. (University Program Group III-B)

ENG 201 Intermediate 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.

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. (University Program Group I-A)

ENG 236 English Literature: Romantic Period to Present 3(3-0)
Romantic period to present, Primarily for sophomores; open to freshmen. (University Program 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. (University Program 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. (University Program 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. (University Program Group I-A)

ENG 262 Masterpieces of European Literature 3(3-0)
Significant works of medieval and modern periods. (University Program 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 ELI 198.

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. Pre-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.

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: ENG 101 or 103/099 or ELI 198 with a grade of C or better; completion of 56 semester credit hours.

ENG 311 Teaching Language in the Secondary School 3(3-0)
Methods of teaching students to read extensively and critically. Prerequisites: ENG 101 or 103/099 or ELI 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 Elementary and Middle Schools 4(3-1)
Introduction to theories and pedagogies on writing in elementary and middle schools. Examines best practice methodologies, including integration with other subject areas. Includes mid-tier experience. Prerequisites: ENG 101 with a minimum grade of C or ENG 103 with a minimum grade of C and ENG 099 with a grade of CR or ELI 198 with a minimum grade of C; ENG 201 with a grade of C or better. Admission to Teacher Education program required.

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. Prerequisites: ENG 101 with a minimum grade of C or ENG 103 with a minimum grade of C and ENG 099 with a grade of CR or ELI 198 with a minimum grade of C; ENG 201 with a grade of C or better. Must have completed 56 credit hours; Admission to Teacher Education program required.

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 ELI 198 and ENG 201.

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. (University Program 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 ELI 198 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 ELI 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. (University Program Group I-B) This course is approved for offering in a distance learning format.

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 ELI 98 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 contributions of African Americans from colonial times to present through written and orally communicated poetry, fiction, drama, and non-fiction. (University Program Group IV-C) Prerequisites: ENG 101 or 103/099 or ELI 198 with a grade of C or better.

Descriptions of courses approved for the University Program appear in italic type.
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. (University Program Group I-A)

ENG 332 Contemporary Literature and Thought 3(3-0)
Readings in contemporary (post-World War II) literary genres relative to
temporary thought. Prerequisites: Grade of "C" or better in ENG 101,
ENG 103/099, or ELI 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 ELI 198, Grade of "C" or
better in ENG 201.

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. (University Program Group I-B). Prerequisites: Grade
of "C" or better in ENG 101, ENG 103/099 or ELI 198.

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 social, philosophical,
religious, economic and political backgrounds. Prerequisites: ENG 101 or
103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C
or better.

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. Prerequisites: ENG 101 or
103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C
or better.

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)
A study of selected sonnets and a variety of comedies, histories, and
tragedies with consideration of their Elizabethan and Jacobean background.
Prerequisites: ENG 101 or 103/099 or ELI 198 with a grade of C or better;
ENG 201 with a grade of C or better.

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 American literary movements and major authors of the first half of
the nineteenth century. Prerequisites: ENG 101 or 103/099 or ELI 198 with
a grade of C or better; ENG 201 with a grade of C or better.

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, etc. Naturalists.

ENG 354 American Literature: Modern Period 3(3-0)
Major literary movements and authors from the early twentieth century to
Wii. Special emphasis on literary modernism.

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.

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. Prerequisites: ENG 101 or 103/099 or ELI 198 with a grade of C or
better; ENG 201 with a grade of C or better.

ENG 375 Introduction to Linguistics 3(3-0)
A survey of the field of linguistics, including discussion of sounds, word
structure, sentence structure, meaning, acquisition, social use and historical
change of language. Prerequisites: ENG 101 or 103/099 or ELI 198 with a
grade of C or better; ENG 201 with a grade of C or better.

ENG 379 History and Development of the English Language 3(3-0)
A study of the English language from its origin to the present.
Prerequisites: ENG 101 or 103/099 or ELI 198 with a grade of C or better;
ENG 201 with a grade of C or better.

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)
Enthusing 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.

ENG 391 Creative Writing: Fiction 3(3-0)
Discussion and critical evaluation of student fiction. Prerequisite: Grade of
"B" or better in ENG 294.

ENG 392 Creative Writing: Poetry 3(3-0)
Discussion and critical evaluation of student poetry. Prerequisite: Grade of
"B" or better in ENG 294.

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
topic 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 Rhetoric and Argumentation 3(3-0)
Study of and practice using modern theories and techniques of persuasion
and analysis, focusing on their uses in contemporary culture. Prerequisites:
ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a
grade of C or better.

ENG 435 Studies in Texts 3(3-0)
Intensive reading of one, two or three major literary works in English, with
historical and cultural 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 language.

ENG 441 Contemporary English Prose 3(3-0)
Important novelists and dramatists in contemporary Britain. Prerequisites:
Grade of "C" or better in ENG 101, ENG 103/099 or ELI 198; grade of "C" or
better in ENG 201; ENG 134 or 234.

ENG 454 Contemporary American Prose 3(3-0)
Important novelists and dramatists in contemporary United States.
Prerequisites: ENG 101 or 103/099 or ELI 198 with a grade of C or better;
ENG 201 with a grade of C or better; ENG 134 or 234.

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
ELI 198; Grade of "C" or better in ENG 201; ENG 134 or 234.

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 101 or 103/099 or ELI 198 with a grade of C or better;
ENG 201 with a grade of C or better; 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 ELI 198; Grade of "C" or better in ENG 201; ENG 234 or ENG
381.

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.

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 ELI 198; grade of "C" or better in ENG 201; ENG 392.

ENG 493 Advanced Nonfiction Writing 3-6(3-0)
Concentration on individual projects in nonfiction. May be repeated up to 6
hours. Prerequisite: ENG 391.

ENG 510 Writing Center Practicum 1-3(Spec)
Examines key issues in writing and teaching writing and provides a
mediated, instructional experience for working one-on-one with writing.
Prerequisites: Enrolled by instructor permission only.

ENG 513 Special Topics 1-6(Spec)
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 519 Teaching of Composition 3(3-0)
Research and methodology in the teaching of composition.

ENG 533 History of Literary Criticism 3(3-0)
Review of critical attitudes and approaches of enduring significance.
Prerequisite: 6 hours of literature.

Descriptions of courses approved for the University Program appear in italic type.
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 ELI 198 with a grade of C or better; ENG 201 with a grade of C or better; ENG 134 or ENG 234.

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 ELI 198; Grade of "C" or better in ENG 201; either ENG 134 or ENG 234. Recommended: 6 hours of literature courses.

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).

ENG 559 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 3(3-0)
Comparative exploration of the Romantic movement in literature and philosophy with special attention to Germany and France. Prerequisites: Graduate status or ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better; either ENG 134 or ENG 234. Recommended: 6 hrs of literature courses.

ENG 569 Seminar in Major World Writers 3-9(Spec)
A study of one or more writers, selected by the instructor, from various regions of the world. May be repeated for a maximum of nine credit hours. Prerequisites: Graduate status or the following: ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better; ENG 134 or ENG 234. Recommended: 6-9 hours of ENG 300 and/or ENG 400 level courses.

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.

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. Prerequisite: ENG 372 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/EFL or bilingual/bicultural classrooms. Prerequisites: ENG 571; Graduate status or the following: ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better.

ENG 576 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.

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.

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 students; methods of stimulating reading. Subject grouping of books related to adolescent reading interests/needs. Identical to LMT 580. Credit may not be earned in more than one of these courses. Prerequisites: Completion of 86 hours. ENG 201 with a grade of C or better, One of: ENG 134 or ENG 234 or ENG 381; or graduate status.

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. Prerequisites: ENG 201 with a grade of C or better, One of: ENG 134 or ENG 234 or ENG 381; or graduate status.

ENG 582 Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
An exploration of the literature and heritage of diverse American cultures, primarily through folk literature, fiction, and biography. Prerequisite: Graduate status or the following: ENG 101 or 103/099 or ELI 198 with a grade of C or better: ENG 201 with a grade of C or better; ENG 134 or 234 or 381. (University Program Group IV-C).

ENG 583 The Heroic Tradition in Children's Literature 3(3-0)
Study of the hero in epic, myth, folktaie, and legend; including modern examples. For graduate level course descriptions above 600, 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(0-0)

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 676 Seminar in Children's Literature 3-9(3-9)

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.

ESC 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 FIN 320. Credit may not be earned in more than one of these courses. Current PC software and casework utilized as the teaching medium. Prerequisites: ACC 201 or ACC 250 or ACC 210 or ENT 210; a signed major or minor 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.

ESC 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 220, ENT 210, ENT 213, ENT 221, ENT 320; 88 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 Accounting, 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 relationships. Topics include the biosphere, ecosystems and how human socio-political factors interact with them. (University Program 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(Spec)
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: successful 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 Science 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. 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 297 Independent Study 1-3(Spec)
Exploration of topics in geography/earth science 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. Prerequisite: 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 WWII. National characteristics of culture, human/land 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 the Second World War 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.

EUR 304 The European Economy 3(3-0)
Study of the economies of Europe in the post-cold-war era, focusing on economic systems, trade agreements and social contracts. (University Program Group IV-B)

EUR 456 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: 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)
Principle of financial management, investment policy, and application of concepts of finance to personal financial planning. Prerequisites: ACC 201 or ACC 250; FIN 302 or BLR 283; STA 282; completion of FIN 307.

FIN 317 Insurance Planning 3(3-0)
This course introduces students to risk management and insurance decisions in personal financial planning. Prerequisites: ACC 201 or ACC 250; FIN 302 or BLR 235; STA 282; completion of FIN 307.

FIN 320 Financial Management of the Entrepreneurial Venture 3(3-0)
A practical application of basic financial management principles to the operations of a small business. Current PC software and case work utilized as the teaching medium. Prerequisite: ACC 201 or ACC 250 or FIN 307. Credit may not be earned in more than one of these courses. Prerequisites: ACC 201 or ACC 250; FIN 307 or FIN 320; 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 330 Real Estate Principles 3(3-0)
Northeastern real estate financing, including debt and equity, public securities and private financing modes. Prerequisites: FIN 332, FIN 472; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 332 Managerial Finance 3(3-0)
Principles 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 336 Real Estate Finance & Investments 3(3-0)
Survey of the institutional landscape of real estate finance, including debt and equity, public securities and private financing modes. Prerequisites: FIN 332, FIN 335, admission to Professional Business Studies or listed on 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)
Situations for educational experience. Prerequisites: permission of the department chairperson; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 397 Special Topics 3-6(Spec)
Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies.

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 signed major or minor.

FIN 425 Options and Futures 3(3-0)
Survey of capital markets and related topics, including futures and options. Prerequisites: FIN 302 or FIN 397; 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. Prerequisites: FIN 332 or FIN 442. 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.

FIN 446 Problems in Financial Institutions 3(3-0)
A case course to enable students to deal with problems affecting various financial 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)
A case course to enable students to deal with problems affecting various financial 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 453 Money and Capital Markets 3(3-0)
A case course to enable students to deal with problems affecting various financial 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 455 Portfolio Management 3(3-0)
A case course to enable students to deal with problems affecting various financial 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 472 Money and Capital Markets 3(3-0)
A case course to enable students to deal with problems affecting various financial 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 482 Working Capital Management 3(3-0)
A case course to enable students to deal with problems affecting various financial 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 490 Internship in Finance 1-3(Spec)
A case course to enable students to deal with problems affecting various financial 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 491 Independent Studies 1-6(Spec)
A case course to enable students to deal with problems affecting various financial 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 492 Practicum in Small Business 3(Spec)
A case course to enable students to deal with problems affecting various financial 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 497 Special Topics 1-6(Spec)
A case course to enable students to deal with problems affecting various financial 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 498 Seminar In Financial Theory 3(3-0)
A case course to enable students to deal with problems affecting various financial 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 499 Advanced Financial Management 3(3-0)
A case course to enable students to deal with problems affecting various financial 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. Recommended: FIN 448, FIN 472.

FIN 573 International Finance 3(3-0)
A case course to enable students to deal with problems affecting various financial 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. Recommended: FIN 448, FIN 472.

FIN 597 Special Topics 1-3(Spec)
A case course to enable students to deal with problems affecting various financial 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, or permission of MBA director.
**Courses**

Prerequisites: See class schedule.

**FNS 397 Special Topics in Foods and Nutrition 1-6(Spec)**

Focus is upon sports nutrition for athletes and individuals in recreation. Topics of special interest which are not normally included in existing courses. Prerequisites: FNS 370; CHM 131, 132; STA 282 or HSC 544. Recommended: FNS 470.

**FLN 197 Special Topics 1-8(Spec)**

For students continuing 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.

**FLN 397 Special Topics 1-12(Spec)**

For students continuing at the 300 level the study of a language or topic not offered in the regular program of this department. Prerequisites: permission 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: permission of instructor and department chairperson; at least 6 hours on the 400 level.

**Foods and Nutrition (FNS)**

See the Department of Human Environmental Studies for more information.

**FNS 160 Introduction to Foods 3(2-2)**


**FNS 263 Beverages In Foodservice 3(3-0)**

A study of the sources, production, storage and service of coffee, tea, carbonated beverages, beer, wine, and spirits.

**FNS 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.

**FNS 361 Experimental Foods 3(2-2)**

Scientific examination and statistical analysis of the behavior of foods. Prerequisites: FNS 160; CHM 131, 132; STA 282 or HSC 544.

**FNS 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: FNS 160.

**FNS 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: FNS 160.

**FNS 366 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: FNS 160, FNS 363, FNS 365.

**FNS 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: FNS 363 with ServSafe Certification, FNS 365, FNS 370.

**FNS 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. (University Program Group II-A)

**FNS 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: FNS 370.

**FNS 397 Special Topics in Foods and Nutrition 1-6(Spec)**

Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

**FNS 465 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: FNS 370.

**FNS 466 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: FNS 365.

**FNS 467 Quantity Food Purchasing 3(3-0)**

Interaction with intermediaries, buying methods, identification and specifications for food and non-food items presented. Prerequisites: FNS 160.

**FNS 468 Foodservice Internship 3(Spec)**

An internship of 240 hours in food production. FNS 566 may be a substitution for this course on the Foodservice major for students demonstrating one or more years of qualifying experience. Approval of instructor required. Prerequisites: FNS 365, FNS 366, FNS 465, FNS 467.

**FNS 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: FNS 365. Recommended: FNS 463.

**FNS 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: FNS 370.

**FNS 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: FNS 370, FNS 473; BIO 392; CHM 342. Corequisites: BIO 392 and FNS 473.

**FNS 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 FNS 471. Prerequisite: FNS 471.

**FNS 473 Advanced Nutrition 4(4-0)**

Biological needs in human nutrition based on current research and its applications. Prerequisites: FNS 370; BIO 392; CHM 421 or CHM 521.

**FNS 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: FNS 370.

**FNS 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: FNS 370.

**FNS 477 Assessing Nutritional Status 2(1-2)**

Introduces dietary, anthropometric, biochemical, and clinical approaches to assessing nutritional status. Prerequisite: FNS 370.

**FNS 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.

**FNS 490 Independent Study in Foods and Nutrition 1-6(Spec)**

A student-initiated learning activity focusing on a faculty approved topic in Dietetics or Foodservice Administration. Prerequisite: Permission of instructor.

**FNS 497 Special Topics in Foods and Nutrition 1-15(Spec)**

Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

**FNS 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. Pre/Co-Requisite: FNS 471.

**FNS 573 Field Work: Community Nutrition 3(Spec)**

Consulting, teaching and supportive research experiences in the field with a nutritionally vulnerable group. Prerequisites: FNS 370 and FNS 570.

**FNS 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: FNS 370.

**FNS 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: FNS 370. This course is approved for offering in a distance learning format.

**FNS 597 Special Topics in Foods and Nutrition 1-15(Spec)**

Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. This course is approved for offering in a distance learning format. Prerequisites: See class schedule.
French (FRN)

See the Department of Foreign Languages, Literatures, and Cultures for more information.

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. (University Program Group IV-B)

FRN 102 Elementary French II 4(4-0)
Basic language skills. Continuation of FRN 101. Recommended: FRN 101. (University Program Group IV-B)

FRN 110 Study Abroad 1-8(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. Recommended: FRN 102. (University Program Group IV-B)

FRN 202 Intermediate French II 4(4-0)
Continuation of FRN 201 with increased emphasis on reading and discussion. Recommended: FRN 201. (University Program Group IV-B)

FRN 210 Study Abroad 1-18(Spec)
Intended for intermediate students studying abroad. Prerequisites: FRN 102.

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 understanding contemporary spoken and written French. Not open to students with credit in FRN 311. Recommended: FRN 202.

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 312. Recommended: FRN 202.

FRN 320 French Civilization 3(3-0)

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.

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.

FRN 331 Survey of French Literature (1800 to Present) 3(3-0)
General acquaintance with the literature of France from 1800 to the present. Selections from representative authors. Recommended: FRN 202.

FRN 333 Survey of Francophone Literature 3(3-0)

FRN 335 French for Business 3(3-0)
Designed for students interested in acquiring vocabulary related to business and in developing fluency in writing and reading business letters and reports. Recommended: FRN 202.

FRN 370 French Pronunciation and Diction 3(3-0)

FRN 403 French Literature of the Middle Ages and Renaissance 3(3-0)
Literary works chosen for detailed study are discussed in class. Recommended: Two 300-level French courses.

FRN 404 French Literature of the Seventeenth Century 3(3-0)
Study and discussion of literary works of significant writers of the period. Recommended: Two 300-level French courses.

FRN 406 French Literature of the Eighteenth Century 3(3-0)
Selected literary works are discussed in class. Recommended: Two 300-level French courses.

FRN 407 French Literature of the Nineteenth Century 3(3-0)
Discussion and analysis of novels, plays, poetry, and short stories of major authors representing the principal movements. Recommended: Two 300-level French courses.

FRN 409 French Literature of the Twentieth Century 3(3-0)
Representative novels, plays, and poetry selected from the works of prominent writers. Recommended: Two 300-level French courses.

FRN 410 Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisites: 6 hours of French at the 300 level; permission of instructor.

FRN 411 Practicum in Teaching French 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.

FRN 412 Practicum: Secondary Field Experience 1(Spec)
Midterm experience in secondary teaching situations. CR/NC only. Co-requisite: FRN 411

FRN 417 Advanced Conversation and Composition 3(3-0)
Intended for students who want to develop greater accuracy and fluency in spoken and written French. Recommended: FRN 315, FRN 316.

FRN 420 Literature and Culture of Quebec 3(3-0)
A study of various aspects of Quebec society and a few of Quebec's major writers. Recommended: Two 300-level French courses.

FRN 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. Co-requisite: FRN 411.

FRN 422 Practicum: Elementary Field Experience 1(Spec)
Midterm experience in elementary teaching situations. CR/NC only. Prerequisite: To be taken concurrently with FRN 421.

FRN 510 Study Abroad 1-12(Spec)
Intended for advanced undergraduate and graduate students studying abroad. Prerequisites: 6 hours at the 400 level; permission of instructor.

FRN 531 Practicum in French Stylistics 3(3-0)
Study and analysis of composition and style. Recommended: FRN 315, FRN 316; 6 additional FRN credit hours in courses 300 or above.

FRN 591 Independent Study 1-6(Spec)
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: At least 6 FRN credit hours at the 300 level or above; permission of the instructor and department chairperson.

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 Exper 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 University Program Group II laboratory requirement. Credit may not be earned in both GEL 100 and GEL 101, GEL 102, GEL 105 or GEL 130. (University Program Group II A)
Descriptions of courses approved for the University Program appear in italic type.

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, earthquakes, and the Ice Age. Credit may not be earned in both GEL 101 and GEL 100, GEL 105, or GEL 130. (University Program Group II-A)

GEL 102 Physical Geology Laboratory 1(0-2)
Laboratory study of minerals, rocks, maps, and geologic processes. Should be taken concurrently with GEL 101, GEL 105, or GEL 301. Satisfies UP Group II laboratory requirement. Pre/Co-Requisites: one of the following: GEL 101, GEL 105, GEL 300, or GEL 301. Credit may not be earned in GEL 102 AND GEL 100 OR GEL 130. (University Program 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. (University Program 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 University Program Group II laboratory requirement. Credit may not be earned in both GEL 130 and GEL 100, GEL 101, GEL 102, or GEL 105. (University Program 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 traveler, naturalist, or park administrator.

GEL 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. Idemtical to GEO 205; credit may not be earned in both of these courses. (University Program 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. (University Program 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, map-making), 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 of Michigan 3(3-0)
An introduction to geological 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. (University Program Group II-A)

GEL 303 Oceanography: Marine Geology 3(3-0)
Introduction to methods and equipment used to study the geology of ocean floors and the dynamic processes responsible for the formation of ocean basins. Prerequisites: one of: GEL 100, GEL 101, GEL 105, GEL 130, GEL 203, GEL 301, or GEO/GEL 205.

GEL 304 Earth Resources 3(3-0)
Mineral, energy, water, and soil resources, including geological origin, location, extraction, and environmental consequences of their usage. Prerequisites: GEL 101 or GEL 105, and GEL 102; or GEL 100 or 130.

GEL 305 Engineering Geology 3(3-0)
Application of geologic processes and quantitative methods to analyze engineering problems involving soils, rocks, surface water and groundwater. Prerequisites: GEL 201; MTH 132; PHY 130 or 145

GEL 310 Introductory Mineralogy 4(3-3)
Introduction to crystallography. Physical and chemical properties, and descriptions of basic groups and classifications of minerals. Field trip fee required. Prerequisites: GEL 101 or GEL 105, and GEL 102; or GEL 100 or GEL 130; Pre/Co-Requisites: CHM 131 or CHM 161.

GEL 320 Earth Materials 2(3-2)
Origin, interpretation, and hand-specimen identification of natural materials including minerals, rocks, and various mineral and energy resources; for non-geology majors. Field trip fee required. Prerequisites: GEL 101 or 105, and 102; or GEL 100; and GEL 130.

GEL 321 Petrology 4(3-3)
Genesis and evolution of igneous and metamorphic rocks. Identification, description of hand samples and thin-sections emphasizing petrogenesis. Optical mineralogy of common rock-forming minerals. Field trip fee required. Prerequisites: GEL 290, GEL 310, Pre/Co-Requisites: CHM 132 or CHM 161.

GEL 325 Glacial Morphology and Landforms 3(3-0)
Patterns and processes in the formation and distribution of selected glacial features. Prerequisite: GEL 290

GEL 331 Field Petrology 2(Spec)
An introduction to techniques of structural analyses and geochmical sampling in crystalline rock. Field descriptions and note-taking skills stressed during 1-3 week field excursion. Field trip fee required. Prerequisites: GEL 310, GEL 321.

GEL 370 Structural Geology 3(2-3)
Theoretical and applied study of structures developed by deformation of the earth's crust at microscopic, macroscopic, and regional scales. Field trip fee required. Prerequisites: GEL 201; MTH 132.

GEL 372 Introduction to Geophysics 3(2-3)
A survey of the physical properties and structure of the earth, and the basic geophysical techniques by which they are known. Field trip fee required. Prerequisites: PHY 130 or PHY 145; MTH 132.

GEL 380 Hydrogeology 3(2-3)
Introduction to the study of groundwater, groundwater flow, well hydraulics, groundwater quality and pollution and resource exploration, evaluation and management. Field trip fee required. Prerequisites: GEL 101 or GEL 105, and GEL 102; or GEL 100 or GEL 130; MTH 106 or higher; junior standing.

GEL 385 Introductory Petroleum Geology 3(2-2)
Petroleum deposits of the earth: location, origin, and occurrence. Technical aspects of exploration and production, emphasizing petroleum and natural gas formations of Michigan. Prerequisite: GEL 201.

GEL 402 Environmental Geochemistry 3(3-0)
Study of chemical principles to environmental-geological topics. Explores geochemical aspects of contemporary problems such as water and soil pollution, including data analysis and problem solving. Prerequisite: GEL 380; CHM 132.

GEL 403 Geochmistry Laboratory 1(0-3)
Fundamentals of research and problem solving utilizing geochemical analytical methods. Emphasizes project planning, sampling techniques, data collection and interpretation. Pre/Co-Requisites: GEL 402 or GEL 460.

GEL 406 Senior Thesis 3(Spec)
A research thesis project approved by the geology faculty. Results of the research project must be presented in a written thesis and oral report. Prerequisite: Senior standing; permission of both instructor and department chairperson.

GEL 413 Geomorphology 3(3-0)
Geologic approach to geomorphology with emphasis on quantitative analysis, dynamics of landform evolution, and use of geomorphology in solving geologic problems. Prerequisites: GEL 320 or GEL 321; EGC 210 and STA 282 recommended.

GEL 420 Applied Geostatistics 3(3-0)
Application of geometrical methods to various scientific and engineering domains. Emphasis on analyzing and interpreting spatial data. Kriging, variography and simulation methods. Prerequisites: GEL 290; MTH 132; PHY 130 or 145, or GEO 203; STA 382; recommended: MTH 223.

GEL 430 Invertebrate Paleontology 3(2-3)
A general survey of the taxonomy, phylogeny, identification, stratigraphy, and paleoecology of the major fossil invertebrate groups. Field trip fee required. Prerequisites: GEL 201; BIO 101, BIO 218 are helpful.

GEL 440 Stratigraphy and Sedimentology 3(2-3)
Stratigraphy is concerned with the study of layered rocks and their interrelationships. Sedimentology considers properties of sedimentary rocks that allow interpretations of depositional processes. Field trip fee required. Prerequisites: GEL 201, 290; GEL 310 or GEL 320.

GEL 450 Geology Field Camp 5(Spec)
Actual field experience in mapping and interpreting various terrains. Student will construct a map and write a report based on observations. Field trip fee required. Prerequisites: GEL 201; GEL 310 or GEL 320.

GEL 460 Geochemistry 3(3-0)
Basic principles of geochemistry, involving distribution and significance of elements in natural systems, as well as processes which affect this distribution. Prerequisites: one semester of chemistry. Pre/Co-Requisites: GEL 320 or GEL 321; CHM 131 or CHM 120 and 127.

GEL 515 Advanced Mineralogical Techniques 3(2-3)
Development of analytical techniques in mineralogy, including identification methods, composition determinations, and procedures in petrofabric analysis. Prerequisite: GEL 315.

GEL 521 Petrology II 3(2-3)
Genesis of metamorphic and non-clastic sedimentary rocks including thin-section investigation of examples of these rocks. Prerequisite: GEL 315.
GEO 201 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 GEO 101.

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 and principles of 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.

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.

GEO 312 Geography of Contemporary Global Issues 3(3-0)
Geographical analysis of contemporary global issues, including trans-border migrations, regional impact of climate change, resource disputes, regional economic imbalances, and ethnno-territorial conflicts. Prerequisites: GEO 120 or 121.

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 150, GEO 201, 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. (University Program Group III-B.) Recommended: GEO 121, Junior standing, or background in basic economics.

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: GEO 120, 121, junior standing.

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.

GEO 340 Urban Geography 3(3-0)
The rise of cities and urbanization. Human use of urban space. The city as environment. This course is approved for offering in a distance learning format. Recommended: GEO 121 or Junior standing.

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.

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. CR/NC option available.

GEO 355 Environmental Catastrophes 3(3-0)
Catastrophes and effects of hurricanes, tornadoes, 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.

Descriptions of courses approved for the University Program appear in italic type.
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. (University Program 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 385 China: Environment and People 3(3-0)
Discussion of China's physical environment and the geographic patterns of social, political, and economic processes. China's dynamic roles in world geopolitics and global economy. Prerequisite: GEO 121 or junior standing.

GEO 395 Michigan 3(3-0)
Physical environment, resources, settlement, population, and economic activities studied sequentially and regionally. Prerequisite: junior standing.

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 input to Geographic Information Systems (GIS). Prerequisites: GEO 203, 303. CR/NC option available.

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.

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.

GEO 508 Digital Remote Sensing 3(2-2)
Computer processing and data analysis of digital remote sensing data. Emphasis on multispectral image processing and analysis using standard image processing software. Prerequisites: GEO 303, 305. Recommended: STA 382.

GEO 511 International Geographic Experience 3-6(Spec)
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.

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.

GEO 513 Geographic Information Systems for Social Sciences 3(2-2)
Spatial data visualization and analysis using Geographic Information Systems (GIS) with emphasis on application to social sciences, planning, public policy, and business research. Co-requisites: GEO 303.

GEO 515 Geography of the Great Lakes Region 3(3-0)
To increase awareness of the complexity and unity of the Great Lakes Region. Study and application of regional concepts to the Great Lakes area. Prerequisites: 6 hours of GEO.

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 382.

GEO 530 Land Use Planning 3(3-0)
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.

GEO 531 Integrated Land Use Planning 3(3-0)
The integration of land use planning and environmental management concepts and techniques with broader regional economic and environmental planning approaches in the US and abroad. Prerequisites: GEO 530.

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.

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 MS 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 graduate level course descriptions above 600, 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.

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. (University Program 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. Required: GER 101. (University Program 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. (University Program Group IV-B)

GER 202 Intermediate German II 4(4-0)
Continuation of GER 201. Recommended: GER 201. (University Program Group IV-B)

GER 210 German Language Study Abroad 1-8(Spec)
Intended for intermediate students studying abroad. Prerequisites: GER 102.

GER 310 German Language Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisites: GER 202.

GER 311 Advanced German I 3(3-0)

GER 312 Advanced German II 3(3-0)
Continuation of GER 311. Required of all majors and minors. Recommended: GER 311.

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.
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.
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 347  German Cultural History III 3(3-0)
Investigation of the cultural history of Germany from post-war division through reunification and after, as seen through a wide variety of texts and other media. Recommended: GER 202.
GER 350  Highlights of German Film 3(3-0)
Survey of German film from the Weimar Republic through the present, with the focus on significant and representative feature films. Taught in German. 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.
GER 397  Directed Readings 1-3(Spec)
Offers insight into certain aspects of German literature and civilization, 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 401  Practice 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.
GER 412  Practice in Secondary Field Experience 1(Spec)
GER 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.
GER 422  Practice in Elementary Field Experience 1(Spec)
Midterm experience in elementary teaching situations. CR/NC only. Prerequisite: To be taken concurrently with GER 421.

GER 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.
GER 490  Advanced German for Business 3(3-0)
Expands on GER 335 and features new topics such as management, finance, marketing, etc. Focuses 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 practice setting; space available in the program. Corequisite: one of the following: ACC 490, FIN 490, MGT 490, MKT 490 or BIS 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.
GER 597  Independent Study 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: 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.
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. (University Program 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.
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 FNS 575. Credit may not be earned in more than one of these courses. Prerequisites: FNS 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 graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.
GRN 631  Gerontology: Theory and Practice 3(3-0)
GRN 632  Public Policy and Aging 3(3-0)

Descriptions of courses approved for the University Program appear in italic type.
Human Development & Family Studies (HDF)

See the Department of Human Environmental Studies for more information.

HDF 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. (University Program Group III-A)

HDF 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. (University Program Group IV-C) This course is approved for offering in a distance learning format.

HDF 211 Marriage and Family Perspectives 3(3-0)
Cultural-historical perspective of marriage and family. Social and psychological dynamics of individual and family interaction.

HDF 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. (University Program Group III-B)

HDF 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.

HDF 214 Consumer Economics 3(3-0)
Consideration of issues and problems related to the informed and responsible consumer.

HDF 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 HDF 100 or HDF 211.

HDF 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.

HDF 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: HDF 100 or EDU 280 or PSY 220.

HDF 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: HDF 100 or EDU 280 or PSY 220.

HDF 306 Human Growth and Development: Adolescence 3(3-0)
Study of adolescence and issues relating to the family of a teenager. Prerequisite: HDF 100.

HDF 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: HDF 100, EDU 280, or PSY 220.

HDF 308 Human Growth and Development: Theory 3(3-0)
Survey of human development theory. Prerequisites: HDF 100; a signed major or minor in Child Development, Human Development, or Family Studies.

HDF 315 Family Management Theory 3(3-0)
Integrated nature of family management; values, goals as reflected in decision-making regarding family resources.

HDF 318 Indigenous Families and Survival: A Global Perspective 3(3-0)
Focuses on indigenous globally, describes roots and impact of institutional and cultural racism, and the diversity of indigenous ways of knowing and family survival. Prerequisites: one of: ANT 170, ANT 200; HDF 110: HST 163, HST 176; REL 220. (University Program Group IV-B)

HDF 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: HDF 219 with a grade of C+ or better; a signed major in Child Development or Family Studies.

HDF 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

HDF 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: HDF 100 or EDU 280 or PSY 220; HDF/SOC 213 or HSC 222; HDF 211; 3 other credits in the Family Studies major or Family Life and Human Sexuality minor.

HDF 397 Special Topics in Human Development & Family Studies 1-6(Spec)
Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

HDF 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: HDF 303 with a grade of C+ or better.

HDF 403 Human Growth and Development: Curriculum and Planning in Pre-Primary Programs 3(3-0)
Addresses the theoretical and practical aspects of a variety of developmentally appropriate approaches to teaching young children. Opportunities to plan experiences in all curricular areas. Prerequisite: HDF 303 with a grade of C+ or better.

HDF 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: HDF 219, grade of C+ or better in both HDF 402 and HDF 403.

HDF 411 Family Relations 3(3-0)
Psychosocial factors affecting interpersonal relations throughout the family life cycle. Prerequisite: HDF 211.

HDF 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; HDF 213 or SOC 213 or WST 213.

HDF 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: HDF 100 or PSY 220 or EDU 280; HDF 211, HDF 291; PSY 211; 3 other HDF credits in human development and family studies.

HDF 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.

HDF 419 HDFS Internship 1-12(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: HDF 319 or HDF 506 with a grade of C+ or better; a signed major in Child Development or Family Studies.

HDF 481 FCS/LME Teaching Methods 3(3-0)
Courses 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 200 level or above.

HDF 490 Independent Study in Human Development & Family Studies 1-6(Spec)
A student-initiated learning activity focusing on a faculty approved topic in Human Development and Family Studies. Prerequisite: Permission of Instructor.

HDF 497 Special Topics in Human Development & Family Studies 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

HDF 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: HDF 307; one of: HDF 302, HDF 303, HDF 306.

HDF 508 Human Growth & Development: Preschool Administration 3(3-0)
The functional role of the preschool program director, legal and administrative controls. Prerequisite: HDF 303.

HDF 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.
HDF 511 Seminar in Human Sexuality 3(3-0)
Survey of professional literature pertaining to human sexuality. Prerequisites: HDF 213 or HSC 222.

HDF 512 Seminar: Family Relations 3(3-0)
Study of interpersonal relationships in several selected cultures. Prerequisites: HDF 211 or HDF 411 or SOC 411.

HDF 513 Readings in the Family 3(3-0)
Survey of professional literature related to the family. Prerequisites: HDF 211 or HDF 411 or SOC 411.

HDF 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: HDF 100 or PSY 220: HDF 211 or HDF 411 or SOC 411.

HDF 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: HDF 211.

HDF 597 Special Topics in Human Development & Family Studies 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

HDF 600 Human Development and Family Studies Foundations 3(3-0)
For students interested in professional careers in human development.

HDF 601 Human Growth and Development: 0-8 Years 6(6-0)

HDF 603 Human Diversity Within and Between Families 3(3-0)

HDF 605 Human Growth and Development: Issues in Adolescent Development 3(3-0)

HDF 609 Human Development Theory and Current Issues 3(3-0)

HDF 615 Theoretical Approaches to Family Processes 3(3-0)

HDF 618 The Family Life Cycle: The Older Adult 3(3-0)

HDF 619 Continuing Registration for Final Research Project 1(1-0)

HDF 697 Special Topics in Human Development & Family Studies 1-15(Spec)

HDF 786 Occupational Field Experience 3(Spec)

HDF 790 Independent Study in Human Development & Family Studies 2-6 (Spec)

HDF 797 Special Topics in Human Development & Family Studies 1-15(Spec)

HDF 798 Thesis in Human Development & Family Studies 1-6(Spec)

Human Environmental Studies (HEV)

See the Department of Human Environmental Studies for more information.

HEV 197 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses.

HEV 297 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses.

HEV 497 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses.

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 597 Special Topics 1-15(Spec)
Consideration of subject matter not included in courses currently listed in Bulletin. Prerequisites: See class schedule.

For graduate level courses above 600, consult the current College of Graduate Studies Bulletin.

HEV 697 Special Studies: Human Environmental Studies 1-15(Spec)

HEV 790 Independent Study 2-6(Spec)

HEV 797 Special Studies: Human Environmental Studies 1-15(Spec)

HEV 798 Thesis 1-6(Spec)

Hotel Administration (HOA)

See the Department of Marketing and Hospitality Services Administration for more information. Courses taken at the University of Nevada, Las Vegas campus toward the Gaming Management and Entertainment Concentration on the Hospitality Services Administration Major.

HOA 334 Casino Operation and Management 3(3-0)
Practices and problems associated with casino management, including staffing, security and control, taxation and entertainment. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

HOA 339 Protection of Casino Table Games 3(3-0)
An in-depth examination of the various methods used to protect casino table games. The course reviews blackjack, baccarat, poker, craps and roulette, examining possible ways that cheating can occur. Methods of detection and various internal controls used by the casino will be discussed. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

HOA 425 Accounting for the Hotel Casino 3(3-0)
Examines the accounting systems, procedures and controls required by both management and government for internal auditing, financial reporting and government control. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

HOA 436 Mathematics of Casino Games 3(3-0)
Develops the techniques and methods for computing the probabilities, expected values and house percentages of casino games and analyzes the effects of changes in playing rules and payoff odds. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

HOA 437 Gambling Regulations and Control 3(3-0)
Nevada’s system of gaming regulation and control will provide a model for studying the history, purpose, politics, methods, and limitations – both practical and legal – of governmental regulation and control of legal gambling. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

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 3(2-1)
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. Colloquia 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: Honor students only.

HON 110 Speaking and Writing with Critical Awareness 6(6-0)
Oral competency and freshman level written competency primarily for Centrals Scholars, other students admitted with permission of instructor. Prerequisites: receipt of a Centrals Scholar Award.

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 relations. Emphasizes past and present social dimensions of human life. Prerequisite: receipt of a Centrals Scholarship Award. Pre/Corequisite: HON 110. (University Program Group III-A and B)

HON 130 Western Cultural and Intellectual Traditions 3(6-0)
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.

Descriptions of courses approved for the University Program appear in italic type.
HON 140  Symmetry in Science: From Microscopic to Macroscopic Systems (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. (University Program Group II-A and B)

HON 150  Racism in the American Experience: Origins, Development, and Impact (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.

HON 197  Centrals Freshman Seminar 3-6(Spec)
Seminar focused on special topics and skills for freshman Centralis students. Repeatable up to 6 credits when content previously studied is not duplicated. Prerequisite: Centrals freshmen only.

HON 321  Seminar 3-12(Spec)
Honors seminars are more cognitively advanced courses addressing various topics, theorems, problems, and critical thinking skill and 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 3(3-0)
Provides an understanding of the university environment, value of learning, and student responsibilities while emphasizing health professions and exploring self-identification skills necessary for choosing careers.

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(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(0-3)
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 MGT 210. Credit may not be earned in more than one of these courses. Prerequisites: None

HSA 240  Introduction to Hospitality Services Administration 3(0-3)
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 247  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(0-3)
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(0-3)
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(0-3)
An examination of hotel and restaurant layout, equipment needs, maintenance, mechanical engineering, and physical design. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 343  Tourism 3(0-3)
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 344  Legal Aspects of Hospitality Services 3(0-3)
An analysis of the legal and labor environments of the hospitality services industry. Prerequisites: BLR 202; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 348  Franchising 3(0-3)
This course explores the major functional areas of franchising, franchising agreements, characteristics of the franchisor and franchisee, franchising opportunities, legal concerns, and franchising strategies. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 350  Lodging Operations 3(0-3)
A detailed look at the multi-dimensional lodging operations from a manager's perspective. Prerequisites: 56 semester hours completed; admission to Professional Business Studies.

HSA 390  Field Studies in Hospitality Services Administration 3(0-3)
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.

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(0-3)
Studies in advanced management requirements in food and beverage systems. Prerequisites: Completion of FNS 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(0-3)
Acquaints the student with current and anticipated financial environment for lodging and food services organizations and develops skills in managing 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 Professional 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 business. Identical with ACC/FIN/MGT/MKT/BIS 492. Prerequisites: 56 semester hours completed; permission of instructor; admission to Professional Business Studies or listed on signed major or minor.

HSA 542  International Tourism 3(0-3)
This course focuses on the strategic management of international tourism in hospitality organizations, associations, and government agencies. Prerequisites: 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 543  Hospitality Industry Volunteer Organizations and Operations 3(0-3)
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.

Descriptions of courses approved for the University Program appear in italic type.
HSA 544 Current Research Issues in Hospitality and Tourism 3(3-0)
Examination and application of major research methodologies and discussion of research issues pertaining to the Hospitality/Tourism Industry. Prerequisites: 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 industry; 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 student’s transcript. Prerequisites: admission to Professional Business Studies and senior standing; 86 hours completed. For graduate level course descriptions above 600, 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 Science (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. (University Program Group I-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. 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 integrate with exercise science.

HSC 201 Medical Terminology 2(2-0)
A self-paced course for learning the meaning and use of prefixes, suffixes, root words and terms commonly used in health care fields. CR/NC only.

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. (University Program Group II-A)

HSC 212 Applied Physiology and Kinesiology 3(2-2)
Emphasizes functional aspects of human performance and their application. Identical to PES 212. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211.

HSC 213 Anatomy & Physiology Laboratory 1(0-2)
A learning experience using laboratory techniques and procedures to develop an understanding of the human body structure and function. Prerequisite: 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 sciences.

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. Pre/Co-Requisite: HSC 214.

HSC 216 Biomechanics and Kinesiology 3(2-2)
The study of functional aspects of human movement, including basic biomechanics 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. Prerequisites: 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. Practical experience in body composition techniques, electrocardiography, and fitness evaluation. Prerequisites: HSC 214, HSC 215.

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 223 Basic Health Concepts I 3(3-0)
One of two introductory content courses covering: tobacco, alcohol and drug use and prevention; growth and development; disease prevention; nutrition; and physical activity. Pre/Co-Requisite: HSC 106.

HSC 224 Basic Health Concepts II 3(3-0)
One of two introductory content courses covering: violence prevention/safety; emotional/mental health; character education; intentional/unintentional injuries; community, environmental and consumer health. Pre/Co-Requisites: HSC 106.

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, intervention, treatment and follow-up. Prerequisite: HSC 235.

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.

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.

HSC 311 - 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 235; HSC 503 or FNS 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 a twelve-week 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 curricular philosophy, structure, placement, and content within elementary, junior, and senior high schools.

HSC 343 Health Education in the Elementary School 3(3-0)
A study of health education programs and practices for teachers at the elementary school level. 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. Pre/Co-Requisite: 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.
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.

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)
This course will address professional issues relating to the history, philosophy, ethics, practice, settings, and competencies of health education. Prerequisites: HSC 418 or concurrent enrollment; HSC 544 or concurrent enrollment.

HSC 420 Health Fitness Assessment 3(3-3)
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 325, 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(3-3)
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.

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.

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, HSC 420.

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 1-2(Spec)
In-depth consideration of relevant, pertinent health issues.

HSC 532 Health 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.

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.

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)
Integrates aspects 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. 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 roles 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.

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 536 Health Education Assessment 3(3-0)

HSC 537 Stress Reduction Workshop 1(Spec)
Systematic evaluation of stress and methods used to effectively reduce stress so that a healthier lifestyle is possible.
HSC 538 Development of Proposals and Reports in Health Administration 3(3-0)
Emphasize 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.

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.

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)

HSC 551 Stress Testing Interpretation 3(3-0)
Courses 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.

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.

HSC 553 Cardiac Medications 2(2-0)

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 214, 215.

HSC 580 Teaching Sexuality and Reproductive Health in Schools 2(3-0)
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, role of physicians and other clinicians, capitation cost-accounting, and forms of reimbursement. Prerequisites: HSC 507, HSC 520.

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 507, HSC 520, HSC 570, HSC 571, and permission of advisor for graduate students.

HSC 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.

For graduate level course descriptions above 600, 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 5(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 670 Research Methods for Health, Physical Education and Sport, Health and Recreation 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. (University Program 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. (University Program 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. (University Program 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. (University Program 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. (University Program 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. (University Program Group III-B)

HST 163 The Latin American Experience 3(3-0)
Introduction to Latin American history and cultures; emphasis given the Pre-Columbian civilizations, European conquest and colonization, and modern Latin America's prospects and problems. (University Program 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. (University Program 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. (University Program 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. (University Program 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. (University Program 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. (University Program Group III-B)

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. (University Program 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. (University Program Group IV - B)

HST 238 Ancient Greece and Rome 3(3-0)
The development of Greek and Roman civilization to A.D. 565. (University Program 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 Schools 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. (University Program 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. (University Program 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. (University Program 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. (University Program 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. (University Program 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 constitutional 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(3-0)
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(3-0)
The historical origins and evolution of rock music within the context of cultural, social, political, and economic history. Prerequisites: at least sophomore standing.

HST 336 Iran and Iraq in History 3(3-0)
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 338 The Decline and Fall of the Roman Empire 3(3-0)
War, politics, society, religion, and culture in the Mediterranean world of the later Roman empire (c. 250-650 AD).

HST 340 The High Middle Ages 3(3-0)
An interdisciplinary thematic study of the key facets of the medieval West at its high point: its environment, people, religion and cultural achievements. (University Program Group IV-A)

HST 341 Renaissance and Reformation 3(3-0)
Social, cultural, intellectual, and political history of these two movements in Europe to 1600. (University Program 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. (University Program Group I-A)

HST 343 History of Paris 3(3-0)
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(3-0)
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(3-0)
Origin and development of the French Revolution and the role of Napoleon in European history, 1787-1815. (University Program Group III-B)

HST 348 Russia through the Reign of Catherine the Great 3(3-0)
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(3-0)
A social, cultural, and political study of Russia in the nineteenth and twentieth centuries.

HST 350 England to 1888 3(3-0)
From Anglo-Saxon times through the reign of the Stuarts.

HST 351 Britain since 1689 3(3-0)
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(3-0)
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(3-0)
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(3-0)
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 352. Credit may not be earned in more than one of these courses.

HST 362 Latin American Revolutions: Mexico, Cuba and Central America 3(3-0)
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(3-0)
A study of the political, social, and cultural history of China from earliest times to the nineteenth century.

HST 370 Modern China 3(3-0)
The political and social history of China from the Opium War to the present.

HST 376 East-Central Africa: Issues 3(3-0)
Explores a varying selection of issues concerning historic and contemporary patterns of political and economic organizations, international relations in Ethiopia, Somalia, Rwanda, Zaire, Uganda, Kenya.

HST 377 West Africa 3(3-0)
An overview of West African history emphasizing the post-1800 period and especially developments since independence.

HST 378 South Africa 3(3-0)
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(3-0)
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 346. Credit may not be earned in more than one of these courses. Recommended: HST 176 or PSC 340. (University Program Group IV-A).

HST 382 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 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(3-0)
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.

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(3-0)
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.

HST 505 Tudor England 3(3-0)
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 102, HST 350 or HST 351.

HST 511 Colonial British America 3(3-0)
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.

HST 512 Era of the American Revolution 3(3-0)
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.

HST 513 Era of the Early Republic, 1789-1825 3(3-0)
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.

HST 514 The Jacksonian Era 3(3-0)
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(3-0)
Causes and process of succession, the conduct of the war, and the reconstruction of the South to 1877. Recommended: HST 111 or HST 320.

HST 516 Emergence of Modern America, 1877-1920 3(3-0)
Social, political, cultural, and economic developments from the end of Reconstruction through the Progressive era. Recommended: HST 112 or HST 321.

HST 517 U.S. Rise in World Leadership, 1917-1945 3(3-0)
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(3-0)
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 525 (3).

HST 523 American Diplomatic History, 1775-1898 3(3-0)
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.

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 526 Modern American Political Culture, 1865-Present 3(3-0)
Using cultural texts such as films, novels, monographs and lectures, this course examines American politics and political culture from 1865 to the present. Recommended: HST 112 or PSC 105 and 9 additional hours of history or political science or graduate standing.

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 late Roman Republic, based primarily on the reading of contemporary sources in translation.

HST 538 Athens: Classical Period 3(3-0)
Athenian political and social change in the sixth and fifth centuries B.C. relying primarily on contemporary or near contemporary documents in translation. Recommended: HST 238.

HST 542 The Enlightenment in Europe 3(3-0)
The social, cultural, political and intellectual history of Europe in the late seventeenth and eighteenth centuries. Recommended: 6 hours of European history before 1815.

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, 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.

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.

HST 576 Colonialism in Africa, 1880s-1960s 3(3-0)
Students will explore events that led to the European colonization of Africa, the process of independence and Africa's predicament in the post-independence period. Prerequisites: HST 176 or HST 292 or graduate status.

HST 590 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.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

HST 600 Historiography 3(3-0)

HST 602 Colloquium in U.S. History to 1865 3(3-0)

HST 603 Colloquium in U.S. History Since 1865 3(3-0)

HST 619 Continuing Registration for Final Research Project 1(1-0)

Descriptions of courses approved for the University Program appear in italic type.
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 3-6(3-0)
HST 717 Seminar in the History of Twentieth Century America 3-6(3-0)
HST 723 Seminar in American Diplomatic History 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 1-15(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(0) Introduction to the study of selected topics in the humanities from various perspectives (historical, literary, religious, philosophical) in small group discussion (seminar) format. (University Program Group I-A)

HUM 197 Special Studies in Humanities 1-12(Spec) HUM 197 is primarily for freshman and sophomores; 397 is primarily for juniors and seniors; 597 is primarily for graduate students. Prerequisite: 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.

HUM 301 Medieval Synthesis: Love in the Middle Ages 3(3-0) An integrative, interdisciplinary seminar (employing history and literary criticism) examining love in its many medieval guises, e.g., love of God, of family, erotic love, and illicit love. Pre/Co-Requisites: ENG 362; HST 200 or HST 340. (University Program 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 concepts of trends of major historical figures. (University Program 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 be earned in more than one of these courses. Prerequisites: HST 176; PSC 340. (University Program 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. (University Program Group IV-A)

HUM 397 Special Studies in Humanities 1-12(Spec) HUM 197 is primarily for freshman 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. Prerequisite: Junior or senior status.

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 interpretation.

HUM 597 Special Studies in Humanities 1-12(Spec) Prerequisite: permission of instructor.

For graduate level course descriptions above 600, 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(0-0)
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.

IET 143 Introduction to Graphic Arts 3(2-2) Letterpress, gravure, screen printing, bookbinding, and basic principles and processes 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 226 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.

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 279 Applied Statics 3(3-0) This course will cover force systems, resultant and equilibria, trusses, frames, beams, and shear and moments in beams. Prerequisites: PHY 130 or 145.

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. 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, Thevenin, Norton and maximum power transfer theorems. Prerequisites: MTH 105.

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.

Descriptions of courses approved for the University Program appear in italic type.
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)

IET 326 Manufacturing Methods Analysis 3(3-0)
Study of methods, materials, tools and equipment for optimizing production operations.

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, inks, 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, gear, 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: PHY 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: PHY 145, PHV 175; or PHY 130, PHV 170.

IET 354 Descriptive Geometry 3(2-2)
Instruction and exercises emphasizing the space relationships of points, lines, planes, and solids. Prerequisite: IET 154.

IET 356 Thermodynamics 3(3-0)
Study of thermodynamics and basic tools necessary to obtain quantitative solutions to common engineering applications involving energy and its conversion, conservation and transfer. Prerequisites: PHY 145, PHY 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. 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. 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. 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. Recommended: IET 292.

IET 376 Metal Processing 3(1-4)
A study of fundamental machine tool and foundry processes. Prerequisite: IET 170.

IET 377 Computer Numerical Control Programming 3(2-2)
Programming and operation of CNC machines, including CNC vertical milling center and turning center. Emphasis on manual programming, CAM design, and machine setup and operation. Prerequisites: IET 154, 170.

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, PHV 175 or PHY 130, PHY 170.

IET 382 Vehicle Control Systems 3(2-2)
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, multiplexing, shifting, decoding, encoding, multiplexing and memory storing. Prerequisite: IET 292.

IET 397 Special Studies 1-6(Spec)
Individual investigation and research to increase one's 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. Industrial Technologist (CIT) Exam and for graduation. Open to graduating seniors only. CR/NC Only. Prerequisites: Final Semester of Program of Study.

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.

IET 425 Industrial Internship 2-8(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.

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 1-30(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's 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; half-tone procedure and problem solving for special copy. Prerequisites: IET 143, IET 453.

IET 450 Machine Design Graphics 3(2-2)
Design layouts, calculations, and detail and assembly drawings of machines are made. Prerequisites: IET 359.

IET 451 Geometric Dimensioning and Tolerancing 3(2-2)
Complete fundamentals of Geometric Dimensioning and Tolerancing (GD&T) concepts as interpreted in the American National Standards Institute document ANSI Y 14.5M, Dimensioning and Tolerancing. Prerequisite: IET 359.

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.

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.

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 361

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 365.

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 Advanced Computer Numerical Control Programming 3(2-2)
Advanced CNC programming techniques including advanced GM codes, 3D surface machining, and multi-axis programming in CNC vertical milling center and turning center. Prerequisites: IET 359, 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 microprocessor systems including system design, hardware configuration, 1/0 interfacing, firmware development and programming. Prerequisite: IET 394.

Descriptions of courses approved for the University Program appear in italic type.
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 graduate level course descriptions above 600, 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)

Interior Design (IND)
See the Department of Human Environmental Studies for more information.

IND 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. Pre/Co-Requisite: IND 138.

IND 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.

IND 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.

IND 155 Introduction to Textiles 3(2-2)
Study of fiber, yarn and fabric properties intended for commercial and interior usage; impact of various processes on use and serviceability; includes textile laboratory analysis. Credit may not be earned in both IND 155 and AMD 155.

IND 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.

IND 328 Design History and Criticism 3(3-0)
Study of Western design forms (17th century through present) with correlating historical, cultural, and theoretical developments. Criticism of current design using diverse criteria. Prerequisites: IND 131, IND 238.

IND 332 Human Shelter and Environment 3(3-0)
Perspectives on the interrelationship between the built, cultural and natural environments, including: social, political and psychological effects; cross-cultural and interdisciplinary views, and ecological aspects. (University Program Group IV-A)

IND 334 Computer-Aided Design for Interiors 3(2-2)
Fundamental concepts and applications of graphic software programs. Characterization and potential applications of digital computers and CAD software in design. Prerequisites: IND 131, IND 138, IND 139; Pre/Co-Requisite: IND 337.

IND 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.

IND 337 Interior Design Studio II: Residential 3(1-4)
Application of basic design process to residential interiors: space planning, furnishing, finishes, color, and lighting; according to the socioeconomic, physical, and psychological needs of users. Prerequisites: IND 139, 332; Pre/Co-Requisites: IND 328, 336.

IND 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 IND 438. Prerequisite: IND 337.

IND 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: IND 131, IND 138, IND 139, IND 238, IND 326, IND 332, IND 336, IND 337. Pre/Co-Requisites: IND 334, 436.

IND 397 Special Topics in Interior Design 1-6(Spec)
Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

IND 432 Seminar in Interior Design 3(3-0)
Prerequisites: IND 339, 436. Must be taken during the final Spring semester before graduation.

IND 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 IND 438. Prerequisite: IND 438.

IND 434 Advanced CAD for Interiors 3(2-2)
Advanced application of CAD software. Emphasis on application of the computer as a design tool, topological applications and computer graphic methods. Prerequisites: IND 334, IND 337; Pre/Co-Requisites: IND 339, 436.

IND 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: IND 139, IND 138, IND 131, IND 337; MTH 055.

IND 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: IND 334, 339, 436; Pre-Co-Requisite: IND 434.

IND 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 IND 433. Prerequisite: IND 338.

IND 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: IND 437.

IND 490 Independent Study in Interior Design 1-6(Spec)
A student-initiated learning activity focusing on a faculty approved topic in Interior Design. Prerequisite: Permission of instructor.

IND 497 Special Topics in Interior Design 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Prerequisites: See class schedule.

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 202, JRN 302, JRN 350, JRN 450; completion of 56 credit hours; prior written approval of the designated internship director; open only to signed Integrative Public Relations majors.

International Program Studies (IPS)
Contact the Office of International Affairs for more information.

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.
Japanese (JPN)

See the Department of Japanese Language and Literature 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. (University Program Group IV-B)

JPN 102 Elementary Japanese II (4-4-0)
Basic language skills. Continuation of JPN 101. Prerequisite: JPN 101. (University Program 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. (University Program Group IV-B)

JPN 202 Intermediate Japanese II (4-4-0)
Designed to develop fluency in reading Japanese; cultural emphasis. Prerequisite: JPN 201. (University Program 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; 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. (University Program 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. Pre/Co-Requisite: 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 reports 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 360.

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. (University Program Group IV-A).

JRN 374 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.

Descriptions of courses approved for the University Program appear in italic type.
JRN 409 Independent Study 1-3(Spec)
Individual study under faculty direction. Prerequisite: senior standing.

JRN 417 Sports Reporting 3(3-0)
Critical examination and reporting of sports events. Prerequisites: JRN 315.

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.

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.

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.

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 445 Multimedia Reporting 3(3-0)
An advanced multimedia course that focuses on writing and reporting for the Internet, including producing multimedia news packages. Prerequisites: JRN 340, 440.

JRN 448 Online Journalism Practicum 3(Spec)
Applying various online journalism theory and skills, such as web design, audio and video production, and photography to publish a web magazine as a group. Prerequisites: JRN 440, 445.

JRN 449 Online Journalism Internship 3(Spec)
Experience in online journalism under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: Junior standing; prior approval of internship director.

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.

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.

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.

JRN 521 Seminar in News Photography 3(3-0)
Field experience of the photographer as a means of communicating information, ideas and opinions.

JRN 529 - Photojournalism Internship 1-4(Spec)
Photography 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.

JRN 555 Public Relations Seminar 3(3-0)
Emphasis on interaction of public relations with society, with individual case studies. Prerequisites: JRN 350.

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 569 - 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 graduate level course descriptions above 600, 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 Science for more information.

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. (University Program 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. (University Program Group IV-B)

LAT 202 Intermediate Latin II 4(4-0)
Continuation of LAT 101. Prerequisite: LAT 101.

LAT 201 Intermediate Latin I 4(4-0)
Translating typical classical Latin prose. Prerequisite: LAT 102.

LAT 202 Intermediate Latin II 4(4-0)
Continuation of LAT 201. Prerequisite: LAT 201.

Leadership Studies (LDR)

See the Interdisciplinary Leadership Minor or the Leadership Institute (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. CR/NC only. Prerequisites: 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. This course is approved for offering in a distance learning format.

LDR 402 Applications of Leadership 3-6(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 119 OR PHL 318. Junior or Senior standing; a signed Leadership minor; prior written approval by the Leadership Minor advisor.
Library (LIB)

Contact Park Library 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, developing 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.

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, consulting, and other procedures also are utilized. May be taken more than once. Prerequisite: permission of instructor.

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 elementary 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 graduate level course descriptions above 600, 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 II: 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 205, BIO 208, 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 business problems including budgeting, forecasting, and optimization for preparing 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 delivering 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 and prior knowledge of presentation graphics software; admission to the MBA program OR both graduate status or 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 and prior knowledge of database management 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 permission 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 monopolistic markets, macroeconomics, and international trade. Not open to economics 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 external 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 marketing environment, buyer behavior, marketing analysis, segmentation, marketing strategy, the marketing mix, and social/ethical issues. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 508 Management and Organization 2(2-0)
Introduction to the internal structure, processes, and control of organizations. 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 decision context. Applications of various t-tests, ANOVA, multiple regression, and cross-tabulation are emphasized. Prerequisites: admission to the MBA program, or permission of the MBA director.
For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

MBA 609 Information Systems Management 2(2-0)
MBA 616 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 697 Special Topics 1-6(Spec)
MBA 699 The MBA Project 4(4-0)

Descriptions of courses approved for the University Program appear in italic type.
Meteorology (MET)

See the Department of Geolgy for more information.

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 291 and 240. Satisfies Group II laboratory requirement. Recommended: Two years of high school algebra or MTH 107. (Group II-B)

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)

MET 321 Meteorological Radar and Satellites 3(3-0)
Principles of remote sensing of the atmosphere using meteorological radar and satellites. Prerequisite: MET 310

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 203, 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 II 3(2-2)
Analysis and interpretation of surface and upper-air charts with specific focus on quasi-geostrophic concepts. Cyclogenesis and frontogenesis. Pre/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/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 content 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 differencing 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.

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. Prerequisites: None

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. Prerequisite to MKT 303. Credit cannot be earned in more than one of these courses. Prerequisites: Tier 2 Admission to Professional Business Studies; ACG 255, BIS 255, MGT 258. Co-requisites: 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; BIS 221; 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 357 Women in Management 3(3-0)
Opportunities, challenges, and problems of women in pursuing a career in management. Considers changing roles, legal aspects, differences and effects on male-female relationships. Prerequisites: MGT 258 or MGT 312; 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 internal management. 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 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.

MGT 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.

MGT 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 ENT 416. Credit may not be earned in more than one of these courses. Does not count on the Department of Management majors or minors. Prerequisites: ENT 213, ENT 221; 56 semester hours completed; signed major in Entrepreneurship.
MGT 419 Entrepreneurship and Small Business Management 3(3-0)
This course covers concepts, processes, and techniques for managing small businesses. 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 ENT 419. Credit may not be earned in more than one of these courses. Does not count on the Department of Management majors or minors. Prerequisites: ENT 200, ENT 210, ENT 213, ENT 221, ENT 320; 86 semester hours completed; major in Entrepreneurship.

MGT 422 Computer Applications for Production Operations Management 3(3-0)
Simulation modeling and application of existing computer software for production and operations environments. Prerequisites: MGT 303, MKT 303 or MGT 340; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 445 Compensation Administration 3(3-0)
Theory, procedures, and methodology for developing and administering compensation programs. Includes methods, wage and salary structure development, incentive pay systems, and benefits administration. Prerequisites: MGT 258 or MGT 312, MGT 320; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 446 Industrial Relations 3(3-0)
Relationships between organized labor and management analyzed in the light of contemporary conditions. Recommended 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 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; admission to Professional Business Studies or listed on signed major or minor. Recommended: ECO 372, FIN 573, and MGT 560.

MGT 484 Human Resource Training and Development 3(3-0)
This course examines theories, concepts, and processes in 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 on the 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.

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 in the Department of Management.

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 other 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; 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; 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; 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 and admission to Professional Business Studies or listed on signed major or minor or permission of the MBA Director.

MGT 542 Inventory 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; 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.

MGT 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 graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

MGT 600 Principles of Management Science/Management Information Systems 3(3-0)

MGT 633 Human Resource Management 2(2-0)

MGT 635 Employee Compensation Practice and Process 2(2-0)

MGT 636 Seminar in Labor Relations 2(2-0)

MGT 637 Personnel Selection and Evaluation 2(2-0)

MGT 643 Personnel Management 3(3-0)

MGT 645 Personnel Compensation Practice and Process 3(3-0)

MGT 646 Labor Relations Issues 3(3-0)

MGT 647 Employee Selection and Evaluation 3(3-0)

MGT 649 Seminar in Organizational Development 3(3-0)

MGT 657 International Management 2(2-0)

MGT 667 International Business 3(3-0)

MGT 791 Independent Studies 1-6(Spec)

MGT 797 Special Topics 3-6(Spec)

MGT 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 minors.

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.

Descriptions of courses approved for the University Program appear in italic type.
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 MGT 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: MKT 304, FIN 302.

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. Business environment; Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MGT 258. Co-requisites: 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.

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 valuations, pricing and reporting procedures, store planning, and product mix considerations. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor; Recommended: Pre/Co-Requisite: MKT 320.

MKT 330 Marketing Channels 3(3-0)
Institutions, physical flows, behavioral and economic relationships comprising 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 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 292; ACC 202 or ACC 255; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 355 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 360 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 365 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 375 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 400 Sales 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 vital 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 379 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 vital 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 of 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 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 300; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MKT 422.

MKT 426 Corporate/Internship in Retailing 3-6(Spec)
Full time work experience under the supervision of the department and employing 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 430 Logistics Management 3(3-0)
Strategic planning of a firm's logistics system in a global marketplace, including customer service, inventory, warehousing and transportation strategies. Prerequisites: MKT 300 or MKT 304, MKT 330; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 431 Logistics Operations 3(3-0)
Operational 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. Corequisites: MKT 340.

MKT 432 Logistics Strategy 3(3-0)
Strategic planning of a firm's logistics system in a global marketplace, including customer service, inventory, warehousing and transportation strategies. Prerequisites: MKT 300 or MKT 304, MKT 330; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

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, MKT 330; 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; 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 304; MKT 340; 56 semester hours completed; admission to Professional Business Studies or listed on a 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 451 or MKT 432; 86 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 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.

MKT 492 Practicum In Small Business 3(Spec)
Provides the student an opportunity to analyze the accounting, finance, marketing, and production systems of an ongoing small business. Similar to ACC/FIN/MGT/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.

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 330, MKT 450; admission to Professional Business Studies or listed on signed 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: MKT 300 or MKT 304; admission to Professional Business Studies; senior standing; 86 semester hours completed. For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

MKT 650 Marketing Research: Managerial Applications 2(2-0)

MKT 663 Product Management 2(2-0)

MKT 664 Promotional Strategy 2(2-0)

MKT 669 Seminar in Marketing Problems 2(2-0)

MKT 791 Independent Studies 1-6(Spec)

MKT 797 Special Topics 3-6(Spec)

MKT 798 Thesis 1-6(Spec)

Middle Level Education (MLE)

See the Department of Teacher Education and Professional Development for more information.

MLE 361 Midlter 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 EDU 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 HDF 100 or PSY 220.

MLE 381 Needs and Characteristics of Young Adolescents 3(3-0)
An orientation to the unique developmental needs and characteristics of young adolescents. Prerequisites: admission to Teacher Education; successful completion (C+ or higher) of EDU 280 or HDF 100 or PSY 220.

MLE 382 Middle Level School Concept, Structures, Programs 3(3-0)
An orientation to middle level education which focuses on the middle level school concept, structures, and programs. Prerequisites: admission to Teacher Education; MLE 381.

MLE 383 Student Diversity in the Middle Level Classroom 3(3-0)
An orientation to the multiple aspects of human diversity in the middle level classroom. Prerequisites: Admission to Teacher Education. MLE 381, MLE 382.

MLE 384 Meeting the Diverse Needs of Learners in the Middle Level Classroom 3(3-0)
Instructional strategies and assessment/evaluation methods and materials for middle level classroom teachers appropriate for the unique developmental needs and characteristics of young adolescents. Prerequisites: admission to Teacher Education; MLE 381, MLE 382, MLE 383.

MLE 385 Curriculum in the Middle Level School 3(3-0)
Curriculum for middle level classroom teachers to meet the unique developmental needs and characteristics of young adolescents. Prerequisites: admission to Teacher Education; MLE 381, MLE 382, MLE 383.

MLE 570 Issues in Middle Level Education 1-3(Spec)
A focus on current issues in middle level education. Students will help select specific topics for in-depth study. Prerequisites: for undergraduates: admission to Teacher Education; MLE 381, MLE 382, MLE 383. For graduates: MLE 641, MLE 642, MLE 643.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

MLE 613 Current Educational Issues 3(3-0)
MLE 641 Young Adolescent Needs and Characteristics 3(3-0)
MLE 642 Concepts, Structures, and Programs for Middle Level Schools 3(3-0)
MLE 643 Student Diversity Issues in the Middle Level Classroom 3(3-0)
MLE 644 Issues in Meeting the Diverse Needs of Middle Level Learners 3(3-0)
MLE 645 Middle Level School Curriculum 3(3-0)
MLE 687 Independent Study in Middle Level Education 1-6(Spec)
MLE 790 Master of Arts Capstone Seminar 3(3-0)

Master of Science in Administration (MSA)

See the current College of Graduate Studies Bulletin for more information.

MSA 501 Managing Change with Emotional Intelligence 3(3-0)
An examination of organizational leadership utilizing emotional intelligence as a foundation for managing change. This course is approved for offering in a distance learning format. Prerequisites: LDR 200 and 86 semester hours completed; or graduate standing.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

MSA 600 Foundations of Research Methods in Administration 3(3-0)

MSA 601 Organizational Dynamics and Human Behavior 3(3-0)

MSA 602 Financial Analysis, Planning and Control 3(3-0)

MSA 603 Strategic Planning for the Administrator 3(3-0)

MSA 604 Administration, Globalization and Multiculturalism 3(3-0)

MSA 610 Environments in Administration 3(3-0)

MSA 619 Continuing Registration for Final Research Project 1(1-0)

MSA 620 Effective Administration and Organizational Behavior 3(3-0)

MSA 634 Managerial Accounting Concepts 3(3-0)

MSA 635 Financial Management 3(3-0)

MSA 640 Quantitative Applications in Decision Making 3(3-0)

MSA 650 Organization Theory: Strategy and Structure 3(3-0)

MSA 660 Marketing Administration 3(3-0)

MSA 661 Diversity and Multiculturalism in the Workplace 3(3-0)
Military Science and Leadership (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 a 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 Officerhood 2(1-2)
Introduction to officerhood, 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(2-2)
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.

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.

MSL 301 Leadership and Problem Solving 4(3-2)
Introduction to military leadership, briefings, writing, power, personality, followership, diversity, group cohesion and dysfunction. Prerequisite: MSL 301.

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.

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.

MSL 401 Leadership and Management 4(3-2)
MSL capstone. Planning, leading, assessing large unit actions. Advanced studies in leadership, mission, planning, leading, and assessing large unit actions. Prerequisites: MSL 301, MSL 302.

MSL 402 Officership 4(3-2)
MSL capstone. Planning, leading, assessing large unit actions. Advanced studies in officership, campaign analysis, ethical climate, task organization, Army missions, resource management, and leadership vision. Prerequisite: MSL 401.

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, exhibition preparation, and educational program development. Prerequisite: 56 hours of course credit.

MST 547 Museum Science Laboratory 3(0-6)
Experimentation with materials and techniques utilized within the museum profession. Primary emphasis is on exhibit preparation, model-building, and replica-making for educational usage. Prerequisites: MST 546; 56 semester hours of credit.

MST 550 Museum Collections Management and Care 3(3-0)
Curatorial techniques in museums including acquisition, cataloging, legal requirements, preservation, computerization and proper handling. Prerequisites: MST 546; 56 hours of course credit.

MST 551 Museum Education and Interpretation Techniques 3(3-0)
Interpretive methods used by museums including development and implementation 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 undergraduate minor in Museum Studies.

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 numeral, common and decimal fractions, percentage, U.S. customary and metric measures, 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 algebraic expressions, variables and algebraic equations, 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 one is a full-time student. CR/NC only.

MTH 105 Intermediate Algebra 3(3-0)
Algebraic expressions, functions, factoring, graphing, linear and quadratic equations, inequalities, systems of linear equations, rational expressions, radicals, negative and rational exponents. Successful completion of this course satisfies the University Math Competency requirement. Recommended: Two years of high school mathematics or successful completion of MTH 055. 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 or minor in mathematics except for students pursuing a B.S. in Ed., Elementary Emphasis. Recommended: one and one-half years of high school algebra; or successful completion of MTH 105 and one year of high school geometry. 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.

MTH 108 Trigonometry 1(1-0)
Analytic Trigonometry including radical measure, trigonometric functions and identities. This supplement to previous work in trigonometry may be taken concurrently with MTH 130, MTH 132. No credit after completion of MTH 106. Does not count toward a major or minor in mathematics. Prerequisites: previous 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 108).

MTH 132 Calculus I 4(4-0)
Limits, continuity, interpretations of the derivative, differentiation of elementary functions, applications of derivatives, antiderivatives, Riemann sums, definite integrals, fundamental theorem of calculus. Prerequisite: MTH 130. (University Program Group II-B)

MTH 133 Calculus II 4(4-0)
Techniques of integration, applications of definite integrals, improper integrals, 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, number systems, operations with natural numbers, rational numbers, and whole 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 with a grade of C or better; one of: MTH 105, 106, 107, 130, 132.
MTH 175 Discrete Mathematics 3(3-0)
Topics in discrete mathematics including sequences, graphs, mathematical induction, recursion, number theory, combinatorial counting, difference equations, algorithms, and Boolean Algebra. No credit in MTH 175 after credit in MTH 375 or MTH 332. Prerequisite: MTH 130.

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 Requirement. (University Program Group I-A)

MTH 201 Fundamentals of Mathematics 3(3-0)
History of mathematics, mathematical logic, numeration systems, properties 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 modeling real world phenomena is explored. Such mathematical areas as graph theory, linear programming, probability theory, and difference equations are developed as solution techniques for concrete problems from many disciplines. Prerequisite: Two years of high school mathematics. (University Program Group II-B)

MTH 217 Business Calculus 4(4-0)
Differentiation 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 107.

MTH 223 Linear Algebra and Matrix Theory 3(3-0)
Systems of linear equations, matrices, determinants, vectors, vector spaces, eigenvalues, linear transformations, applications and numerical methods. Prerequisite: MTH 132.

MTH 232 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. Prerequisite: MTH 133.

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, vector calculus. Prerequisites: MTH 133. Pre/Co-Requisites: MTH 223 or 232.

MTH 256 Problem Solving with Technology for K-8 Mathematics Teachers 3(3-0)
Develops the use of handheld technologies and microcomputers, in K-8 mathematics with particular emphasis on explorations, modeling and mathematical problem-solving. Prerequisites: MTH 151 with grade of B or better; MTH 152 with grade of B or better; Signed major or minor in Elementary Mathematics.

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. Corequisite: STA 282 or STA 382.

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 322 Introduction to Analysis 3(3-0)
Study of several basic concepts in mathematics including logic, set theory, relations and functions, cardinality, number systems, sequences. Pre/Co-Requisite: MTH 233.

MTH 334 Differential Equations 3(3-0)
Definition and solution of first, second, and higher order differential equations. Prerequisites: 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 axiomatic 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, MTH 261; signed secondary mathematics major or minor.

MTH 375 Discrete Structures 3(3-0)
Relation between set theoretic 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; knowledge of a programming language.

MTH 439 Numerical Analysis II 3(3-0)

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 541.

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 nonlinear 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.

MTH 522 Math of Cryptology 3(3-0)
The mathematics and algorithms of classical and computer-age cryptology. Substitution, transposition, stream and block ciphers; DES, Rijndael and public key cryptology; 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, triangularizable 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, arc length, series. Credits will not count towards 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)
Continuation of MTH 532. Rigorous development of calculus for functions of several variables. Limits, continuity, differentiation, and integration. Prerequisite: MTH 532.

MTH 534 Applied Mathematics and Differential Equations 3(3-0)
Initial-boundary value (linear, nonlinear) problems, orthogonal functions, differential operators, numerical techniques, introduction to partial differential equations, applications to biology, chemistry, engineering, medicine, and physics. Prerequisites: MTH 232, 334.

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 267, 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 351 and MTH 554

MTH 552 History of Elementary Mathematics for Spec-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 351 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.

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 Microcomputers 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.

MTH 570 Mathematical Logic 3(3-0)
Logical connectives, truth tables, quantifiers, models, logical truth. Incompleteness and undecidability of elementary number theory. Prerequisite: MTH 332.

MTH 573 History of Mathematics 3(3-0)
History of arithmetic, algebra, geometry, calculus, and calculus. Prerequisites: MTH 332 or MTH 341, or graduate status.

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 566 Operations Research I 3(3-0)
Mathematical theory and applications of mathematical programming. Linear programming duality, 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 382, MTH 586.

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 minor 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 graduate level course descriptions above 600, 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 644 Differential 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 1-6(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 Mathematics 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 765 Internship: College Teaching 3-6(Spec)

MTH 766 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:

- **Course Content**
  - **Middle Digit**

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Descriptions of courses approved for the University Program appear in italic type.
MUS 171 Cornet or Trumpet 1-12(Spec)

MUS 169 Saxophone 1-12(Spec)

MUS 167 Bassoon 1-12(Spec)

MUS 165 Clarinet 1-12(Spec)

MUS 163 Oboe 1-12(Spec)

MUS 162 Flute 1-12(Spec)

MUS 161 Violin Class I 1-2(Spec)

MUS 159 Jazz Guitar 1-8(Spec)

MUS 157 String Bass 1-12(Spec)

MUS 155 Violoncello 1-12(Spec)

MUS 153 Violin and Viola 1-12(Spec)

MUS 152 Piano 1-12(Spec)

MUS 151 Organ 1-12(Spec)

MUS 147 Piano Class I 1-2(Spec)

MUS 146 Brass Techniques 2(0-4)

MUS 145 Woodwind Techniques 2(0-4)

MUS 144 Vocal Techniques I 1(0-2)

MUS 143 Music In Early Childhood 3(3-0)

MUS 142 Vocal Techniques II 1(0-2)

MUS 141 Vocal Techniques I 1(0-2)

MUS 140 Piano Class II 1(0-2)

MUS 139 Piano Class III 1(0-2)

MUS 138 Composition I 1-4(Spec)

MUS 137 Composition II 1-4(Spec)

MUS 136 Composition III 1-4(Spec)

MUS 135 Composition IV 1-4(Spec)

MUS 134 Composition V 1-4(Spec)

MUS 133 Composition VI 1-4(Spec)

MUS 132 Composition VII 1-4(Spec)

MUS 131 Composition VIII 1-4(Spec)

MUS 130 Composition IX 1-4(Spec)

MUS 129 Composition X 1-4(Spec)

MUS 128 Composition XI 1-4(Spec)

MUS 127 Composition XII 1-4(Spec)

MUS 126 Composition XIII 1-4(Spec)

MUS 125 Composition XIV 1-4(Spec)

MUS 124 Composition XV 1-4(Spec)

MUS 123 Composition XVI 1-4(Spec)

MUS 122 Composition XVII 1-4(Spec)

MUS 121 Composition XVIII 1-4(Spec)

MUS 120 Composition XIX 1-4(Spec)

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MUS 117 Composition XXII 1-4(Spec)

MUS 116 Composition XXIII 1-4(Spec)

MUS 115 Composition XXIV 1-4(Spec)

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MUS 113 Composition XXVI 1-4(Spec)

MUS 112 Composition XXVII 1-4(Spec)

MUS 111 Composition XXVIII 1-4(Spec)

MUS 110 Composition XXIX 1-4(Spec)

MUS 109 Composition XXX 1-4(Spec)

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MUS 105 Composition XXXIV 1-4(Spec)

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MUS 98 Composition XLI 1-4(Spec)

MUS 97 Composition XLII 1-4(Spec)

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MUS 95 Composition XLIV 1-4(Spec)

MUS 94 Composition XLV 1-4(Spec)

MUS 93 Composition XLVI 1-4(Spec)

MUS 92 Composition XLVII 1-4(Spec)

MUS 91 Composition XLVIII 1-4(Spec)

MUS 90 Composition XLIX 1-4(Spec)

MUS 89 Composition L 1-4(Spec)

MUS 88 Composition LI 1-4(Spec)

MUS 87 Composition LII 1-4(Spec)

MUS 86 Composition LIII 1-4(Spec)

MUS 85 Composition LIV 1-4(Spec)

MUS 84 Composition LV 1-4(Spec)

MUS 83 Composition LX 1-4(Spec)

MUS 82 Composition LXI 1-4(Spec)

MUS 81 Composition LXII 1-4(Spec)

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MUS 59 Composition LXXXIV 1-4(Spec)

MUS 58 Composition LXXXV 1-4(Spec)

MUS 57 Composition LXXXVI 1-4(Spec)

MUS 56 Composition LXXXVII 1-4(Spec)

MUS 55 Composition LXXXVIII 1-4(Spec)

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MUS 23 CompositionXL 1-4(Spec)

MUS 22 CompositionXLI 1-4(Spec)

MUS 21 CompositionXLI 1-4(Spec)

MUS 20 CompositionXLII 1-4(Spec)

MUS 19 CompositionXLIII 1-4(Spec)

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MUS 16 CompositionXLVI 1-4(Spec)

MUS 15 CompositionXLVII 1-4(Spec)

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MUS 9 CompositionLIII 1-4(Spec)

MUS 8 CompositionLIV 1-4(Spec)

MUS 7 CompositionLV 1-4(Spec)

MUS 6 CompositionLVI 1-4(Spec)

MUS 5 CompositionLVII 1-4(Spec)

MUS 4 CompositionLVIII 1-4(Spec)

MUS 3 CompositionLIX 1-4(Spec)

MUS 2 CompositionLX 1-4(Spec)

MUS 1 CompositionLXI 1-4(Spec)

MUS 0 CompositionLXII 1-4(Spec)
MUS 241 Diction for Singers 2(1-2)
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)
Prerequisite: MUS 144.

MUS 247 Piano Class III 1(0-2)
Prerequisite: MUS 148.

MUS 248 Piano Class IV 1(0-2)
Prerequisite: MUS 247.

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.

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.

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. Prerequisites: admission to Music candidacy; MUS 209; 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)
An introduction to musical systems of major non-Western cultures and folk and traditional music of Western continents. (University Program Group I-B)

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.

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 pedagogy 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.

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 227.

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)
Individualized program of applied studio instruction in string bass performance focusing on advanced technique, musicianship, literature, and performance practice. The course is repeatable and intended as a four-semester foundation and pre-requisite for advanced study at the 700-level. Prerequisites: Admission to the School of Music and successful completion of a 300-level performance jury.

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.

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 1-6(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.

Descriptions of courses approved for the University Program appear in italic type.
MUS 431 Instrumental Classroom and Rehearsal Methods 2(2-1)
Methods and materials for instrumental music, grades 5-12. Topics include sequential curriculum development, standards-based rehearsal design, teaching in a heterogeneous setting. Includes mid-tier field experience. Prerequisites: MUS 230; admission to music candidacy; admission to teacher education program. Recommended: MUS 144, 146, 244, 246, 344.

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 280; 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)
Individual instruction in jazz piano performance. May be taken more than once, for 1-2 credits each time, to a maximum of 8 credits.

MUS 453 Advanced Counterpoint 2(2-0)
Prerequisite: MUS 303.

MUS 501 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.

MUS 505 Seminar in Analysis: Twentieth-Century Music 2(Spec)
Detailed study of significant composers. Prerequisites: MUS 303.

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 Eurythmics 2(1-2)
Introduction to the teaching techniques 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.

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)
Firsthand experience in teaching beginning violin students using the latest and most successful methods. Prerequisite: MUS 246.

MUS 539 String Pedagogy Practicum 2(2-0)
Supervised experience in teaching the organ. Prerequisite: 4 semesters of private organ study.

MUS 550 Piano Pedagogy Practicum 2(2-0)
Supervised experience in teaching the organ. Prerequisite: 4 semesters of private organ study.

MUS 552 Advanced Piano Pedagogy II 3(3-0)
Prerequisite: admission to music candidacy or admission to the graduate music program and permission of instructor.

MUS 553 Advanced Piano Pedagogy III 3(3-0)
Prerequisite: permission of instructor.

MUS 597 Special Studies 1-6(Spec)
For graduate level course descriptions above 400, consult the current College of Graduate Studies Bulletin.

MUS 607 Basic Skills in Music Technology I 2(2-0)
MUS 618 Continuing Registration for Final Research Project 1(1-0)
MUS 620 Jazz Harmony and Analysis 3(3-0)
MUS 621 Jazz Improvisation Pedagogy and Practicum 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(4(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 Curriculum Design in Music Education 3(3-0)
MUS 732 History and Philosophy 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 757 String Bass 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 775 Trombone 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 795 Psychology of Music Teaching and Learning 3(3-0)
MUS 797 Special Studies 1-6(Spec)
MUS 798 Thesis 1-6(Spec)
MUS 799 Recital 4(Spec)

Neuroscience (NSC)
For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.
NSC 600 Special Issues in Neuroscience 1-12(Spec)
NSC 601 Principles of Neuroscience I 4(4-0)
NSC 602 Principles of Neuroscience II 4(4-0)
NSC 690 Research Seminar Neuroscience 1-4(Spec)
NSC 696 Directed Research 1-12(Spec)
NSC 697 Independent Study 1-8(Spec)
NSC 798 Graduate Seminar in Neuroscience 1-12(Spec)
NSC 798 Thesis: Design 1-3(Spec)

Descriptions of courses approved for the University Program appear in italic type.
**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 RLA 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. 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 130 Advanced Swimming 1(1-0)**
Conditioning and Advanced Swimming Stroke Techniques. 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 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 DANC 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 1(2-1)**
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)**
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 billiards 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 162 Snow Skiing, Beginning 1(Spec)**
A $65.00 course fee for lift tickets and lessons is charged. Student furnishes own equipment and pays for it from ski resort.

**PED 163 Cross Country Skiing 1(Spec)**
Beginning class in cross country skiing involving on-snow techniques, waxing, proper equipment choices, and field trips.

**PED 164 Individual Sports 2(Spec)**
A course which will expose students to badminton, golf, and tennis, which are individual, lifetime sports.

**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 boutting 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)**
Development of basic skills needed to play basketball.

**PED 174 Team Sports 2(Spec)**
Wallyball combines the skills of volleyball, racketball, 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.

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**Descriptions of courses approved for the University Program appear in italic type.**
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)
Develop 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 189 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 236 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 136 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 ability. Recommended: Previous aerobic experience; physician approval.

PED 244 Pilates: Intermediate 2(2-0)
This course is designed to strengthen the Pilates practice of students who have had previous Pilates experience. Students will perform movements using the Pilates ring. Prerequisite: PED 144.

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.

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.

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 club 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 develop further proficiency in the fundamental skills of skating. Recommended: PED 257.

PED 261 Intermediate Snowboarding 1(Spec)
Continued development of snowboarding skills. $65.00 fee. Recommended: PED 250.

PED 262 Snow Sking, 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 bouting, 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.

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)
Student furnishes racquet, 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.

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-racquetball; 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 class 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)

PES 167 Track and Field - Running Events 1(Spec)
Introduction to basic skill development and strategy in the various competitive track 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.
Descriptions of courses approved for the University Program appear in italic type.

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. Prerequisites: PES 115, 186.

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)

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: PED 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.

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's response to these conditions. Identical to HSC 308. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211.

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 519. 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 3 feet and recover 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.

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 364  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.

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.

PES 372  Coaching of Baseball 2(2-0)
Theory and techniques for coaching baseball. Prerequisite: PES 172.

PES 374  Coaching of Football 2(2-0)
Theory and techniques of coaching football. Prerequisite: PES 174.

PES 375  Coaching Fastpitch Softball 2(2-0)
Theory and techniques of coaching fastpitch softball. Prerequisite: PES 172.

PES 376  Coaching Soccer 2(2-0)
Theory and techniques of coaching soccer. Prerequisites: PES 176.

PES 378  Coaching Volleyball 2(2-0)
Latest strategies and techniques in coaching volleyball. Prerequisite: PES 178.

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 368.

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 311, 560; HSC 205 for students who are receiving credit for an athletic coaching minor or an athletic coaching endorsement. 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 problem. 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; Pre/Co-Requirement: 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. Prerequisite: ENG 101.
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.

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(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.

PES 525 International Travel Course in Sport 3(3-0)
A study abroad course that investigates the components of sport management from an international perspective, including historical and cultural influences on sport. Prerequisites: Permission of 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.

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 graduate level course descriptions above 600, 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)
PES 619 Continuing Registration for Final Research Project 1(1-0)
PES 620 Sport - An Interdisciplinary Study 3(3-0)
PES 625 Facilities for Sport and Physical Education 3(3-0)
PES 631 Physiology of Exercise 4(3-2)
PES 640 Sport and the Law 3(3-0)
PES 645 Financial Management of Sport 3(3-0)
PES 650 Sport Marketing 3(3-0)
PES 660 Biomechanics 3(3-0)
PES 670 Research Methods for Physical Education and Sport, Health and Recreation 3(3-0)
PES 672 Statistics for Physical Education and Sport, Health and Recreation 3(3-0)
PES 690 Practicum 1-4(Spec)
PES 691 Independent Study 3(Spec)
PES 693 Field Study in Physical Education and Sport 1-6(Spec)
PES 696 Seminar in Physical Education 2(2-0)
PES 698 Thesis 1-6(Spec)
PES 699 Sport Management Internship 3-6(Spec)
PES 703 Advanced Independent Reading 1-2(Spec)
PES 791 Independent Study 2(Spec)

Physician Assistant (PHA)
See the School of Rehabilitation and Medical Sciences for more information. For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

PHA 608 Clinical Medicine I 4(4-0)
PHA 609 Clinical Medicine II 4(4-0)
PHA 610 Clinical Medicine III 3(3-0)
PHA 612 Obstetrics/Gynecology 3(3-0)
PHA 614 Pediatrics 3(3-0)
PHA 616 Surgery 3(3-0)
PHA 618 Emergency Medicine 3(3-0)
PHA 619 Continuing Registration for Final Research Project 1(1-0)
PHA 620 Infectious Diseases 3(3-0)
PHA 624 Issues in Practice 3(3-0)
PHA 625 Clinical Pharmacology I 3(3-0)
PHA 626 Clinical Pharmacology II 3(3-0)
PHA 630 Clinical Procedures I 1(0-3)
PHA 631 Clinical Procedures II 2(0-6)
PHA 640 Clinical Problem Solving I 3(0-11)
PHA 641 Clinical Problem Solving II 3(0-11)
PHA 642 Clinical Problem Solving III 3(0-11)
PHA 645 Critical Appraisal of Medical Literature and Evidence-Based Medicine 3(3-0)
PHA 650 Diagnostic Tests I 1(0-3)
PHA 651 Diagnostic Tests II 1(1-0)
PHA 652 Diagnostic Tests III 1(1-0)
PHA 660 History and Physical Examination I 2(1-3)
PHA 661 History and Physical Examination II 2(1-3)
PHA 662 History and Physical Examination III 2(1-3)
PHA 671 Preventive Medicine 3(3-0)
PHA 672 Applied Ethics for Physician Assistants 2(2-0)
PHA 673 Psychiatry 3(3-0)
PHA 690 Clinical Education I 16(0-40)
PHA 691 Clinical Education II 16(0-40)
PHA 692 Clinical Education III 16(0-40)
PHA 697 Special Topics for Physician Assistants 1-9(Spec)

Philosophy (PHL)
See the Department of Philosophy and Religion for more information.

PHL 100 Introduction to Philosophy 3(3-0)
Study of the basic issues and methods of philosophy. Depending on instructor, it may have either a problem or a historical orientation. (University Program Group I-A)

PHL 105 Critical Reasoning in Everyday Life 3(3-0)
Designed to help the student think clearly, evaluate arguments, and develop a sensitivity to language. Emphasis is on the development of skills rather than theories.

PHL 118 Moral Problems 3(3-0)
Study of basic moral problems and proposed solutions to problems associated with violence, oppression, prejudice, and sex. (University Program Group I-A)

PHL 140 Introduction to Logic 3(3-0)
A study of modern formal logic, with the emphasis on 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.

Descriptions of courses approved for the University Program appear in italic type.
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? (University Program 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 immortality. (University Program 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. (University Program Group IV-B)

PHL 307  Existentialism: From Kierkegaard to Sartre 3(3-0)
Introduction to the problems, methods, and history of existential thought 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, employee 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.
Prerequisites: 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.
Prerequisite: one course in University Program Group III-A. (University Program Group IV-A)

PHL 340  Intermediate Logic 3(3-0)
First order quantificational logic is presented as a paradigm of formal theories. In terms of this, some metatheoretic notions are introduced.
Prerequisite: 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. (University Program 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.

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 140; one other course in Group II of the University Program.

PHL 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.

PHL 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.

PHL 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.

PHL 405  Major Philosophers 3(3-0)
An in-depth study of a major philosopher. Prerequisite: At least one of the following: PHL 200, 300, 302, 403, 404.

PHL 410  Philosophy of Law 3(3-0)
Consideration of such questions as: What is a legal system, a law, a legal right? What is the relation among law, morality, and custom?

PHL 418  Advanced Moral Philosophy 3(3-0)
An advanced study of contemporary moral theory, meta-ethics, and the methodology of constructing and evaluating ethical theories. Prerequisite: PHL 218.

PHL 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: PHL 100, PHL 140.

PHL 422  Political and Social Philosophy 3(3-0)
Study of the ethical and political problems confronting the individual and society.

PHL 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 analytical 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: PSC 275, PSC 326, PSC 371, PSC 373, or PSC 379.

PHL 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: PHL 100.

PHL 480  Philosophy of the Arts 3(3-0)
Studies in the experience of arts and discussion of traditional and contemporary esthetics.

PHL 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.

PHL 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.

PHL 498  Independent Research 1-6(Spec)
Prerequisite: permission of instructor.

PHL 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.

PHL 525  Philosophical Problems of the Self 3(3-0)
Advanced study of central philosophical questions about persons, such as mind-body problem: the nature of personal identity, and the freedom of the will.
Prerequisites: PHL 100.

PHL 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.

PHL 598  Readings in Philosophy 1-6(Spec)
Selected studies of one or more philosophic works. Prerequisite: permission of instructor.

Physical Science (PHS)
See the Department of Physics for more information.

PHS 101  Survey of Physical Science 3(3-0)
Introduction to the nature of the physical universe, the concepts and methods of physical science, and the history of scientific ideas. Developed through lectures and demonstrations. (University Program Group II-B)

PHS 151  Introductory Physical Science I 3(2-2)
Introduction to the concepts and methods of physical science. Focusing on the physical science of solid matter, students are encouraged to draw conclusions from desktop experiments. Recommended for prospective elementary, special education, and middle school teachers. Satisfies University Program Group II laboratory requirement. (University Program Group II-B)

PHS 165  Horizons in Physical Science 1-6(Spec)
Student-selected topics for the non-science student. Topics such as Stonehenge, energy conservation in the home, announced in the Class Schedule. No credit toward major or minor.

PHS 251  Introductory Physical Science II 3(2-2)
Continuation of PHS 151. The physical science of solid matter with emphasis on models of atoms and molecules. Prerequisite: PHS 151.
PHY 171 College Physics Laboratory II 1(0-2)  
Laboratory experience for PHY 131. Introductory experimental techniques and instrumentation for electrical, optical, and nuclear phenomena. Prerequisite: PHY 170. Corequisite: PHY 131.

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 University Program Group II laboratory requirement. Corequisite: PHY 145. (University Program 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)  
Statics 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; or MTH 133, MTH 223.

PHY 231 Electronic Instrumentation 2(1-2)  
Measuring instruments and techniques encountered in an electronics laboratory. An understanding of basic electric circuitry is assumed. Prerequisites: PHY 145; PHY 176.

PHY 233 Network Analysis I 3(3-0)  
Introduction to analysis of linear circuits. Kirchoff's laws; node-voltage and mesh-current methods; Thévenin and Norton equivalent circuits; steady-state response to sinusoidal sources; power. Prerequisites: Corequisites: PHY 145; or both MTH 153, MTH 223.

PHY 234 Network Analysis II 3(3-0)  

PHY 247 Introduction to Modern Physics 4(4-0)  
Atomic structure, elementary quantum theory, radiocactivity, nuclear phenomenology, elementary particles, introduction to the solid state. Prerequisite: PHY 146.

PHY 277 University Physics Laboratory III 1(0-3)  
Laboratory experience for PHY 247. Introduction to the techniques of electron and photon physics. Corequisite: PHY 247.

PHY 312 Introduction to Mathematical Physics 3(3-0)  

PHY 313 Intermediate Theoretical Physics II 3(3-0)  
A continuation of PHY 312 using additional advanced techniques. Prerequisite: PHY 312.

PHY 322 Intermediate Mechanics 3(3-0)  

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 Introductory 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. Prerequisite: PHY 312. Corequisite: 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/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.
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.

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 312, PHY 322, and PHY 332. Pre/Co-Req: PHY 442. Recommended: A basic knowledge of a programming language such as FORTRAN.

PHY 533 Electromagnetic Waves 3(3-0)  
Maxwell’s equations and boundary value problems in electrostatics. Production and propagation of electromagnetic radiation. Prerequisite: PHY 332.

PHY 552 Nuclear Physics 3(3-0)  
Radioactive transformations, detection of radiation, methods of producing high-speed particles, nuclear structure, fission, cosmic radiation and applications of radioactivity. Prerequisite: PHY 442.

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 332.

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.

PHY 580 Special Topics 1-9(Spec)  
Topics not ordinarily covered in regular courses. Prerequisite: permission of instructor. For graduate level course descriptions above 600, 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 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 685 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. This course is approved for offering in a distance learning format. (University Program 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. (University Program 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. (University Program 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. (University Program Group IV-C)

PSC 150 World Politics 3(3-0)  
Introductory conceptual analysis of international politics: North-South relations; and major areas of tension in Latin America, Africa, Middle East, and Asia. This course is approved for offering in a distance learning format. (University Program 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. (University Program Group III-B)

PSC 210 Introduction to Public Administration 3(3-0)  
Provides a broad understanding of public administration and application as an area of specialization. (University Program Group III-B)

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 to the study of selected political systems. (University Program 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. (University Program Group III-B)

PSC 275 Great Political Thinkers 3(3-0)  
Discussion of vital 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. (University Program 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 other political science course.

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 Midterm Teaching in Political Science 2(1-2)  
The midterm experience provides observations and small-group instructional opportunities for students seeking secondary certification in political science. Course includes both campus instruction and field work. CR/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. PSC 105.

PSC 321 The American Chief Executive 3(3-0)  
Development of the executive office of the United States, with emphasis on the Presidency. This course has been approved for offering in a distance learning format.

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 and their components 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, LAR 145, PSC 100, PSC 125, REL 140, SOC 100. (University Program 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. (University Program 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.

Descriptions of courses approved for the University Program appear in italic type.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSC 328</td>
<td>Campaigns and Elections 3(3-0)</td>
<td>Study of campaigns and elections in the United States, including candidate emergence and nominations, campaign organization and strategy, election results, and electoral reform.</td>
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<tr>
<td>PSC 340</td>
<td>African Political Systems and Processes 3(3-0)</td>
<td>Comparative survey of selected African political systems with focus on sub-Saharan Africa. (University Program Group IV-B)</td>
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<tr>
<td>PSC 341</td>
<td>Comparative Politics: Eastern Europe 3(3-0)</td>
<td>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. (University Program Group IV-B)</td>
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<tr>
<td>PSC 342</td>
<td>Comparative Immigration Politics 3(3-0)</td>
<td>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.</td>
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<tr>
<td>PSC 343</td>
<td>Southeast Asian Political Systems and Processes 3(3-0)</td>
<td>The impact of culture on politics in several countries of Southeast Asia, including Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Indonesia, Singapore, Brunei and Philippines. (University Program Group IV-B)</td>
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<tr>
<td>PSC 344</td>
<td>East Asian Political Systems and Processes 3(3-0)</td>
<td>Emphasis on selected states in East Asia. East Asia consists of China, Japan, and Korea. (University Program Group IV-B)</td>
<td></td>
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<tr>
<td>PSC 345</td>
<td>Middle Eastern Political Systems 3(3-0)</td>
<td>Comparative analysis of the politics of selected Middle Eastern states, including Egypt, Iraq, Saudi Arabia, Algeria, Jordan, Morocco, Iran, Israel and Turkey. (University Program Group IV-B)</td>
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<tr>
<td>PSC 346</td>
<td>The Politics of Islam 3(3-0)</td>
<td>Political examination of Islam's revival as a political doctrine that poses a unique reading of modernity, world peace and democracy in the 21st century.</td>
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<tr>
<td>PSC 347</td>
<td>Comparative Politics: Western Europe 3(3-0)</td>
<td>Comparative analysis of selected European states, including Great Britain, France, Italy and Germany. (University Program Group IV-B)</td>
<td></td>
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<tr>
<td>PSC 348</td>
<td>Latin American Political Systems 3(3-0)</td>
<td>A comparative analysis of selected Latin American political systems, analyzing the impact of authoritarianism, international intervention, and democratization. (University Program Group IV-B)</td>
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<tr>
<td>PSC 349</td>
<td>Panama: Exploring Politics and Society in a Central American Nation 3(3-0)</td>
<td>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. (University Program Group IV-B)</td>
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<tr>
<td>PSC 351</td>
<td>International Relations 3(3-0)</td>
<td>Classical and contemporary theories of international relations, War, terrorism, and genocide. International law and organizations. Global economics and world poverty. Ethics in international relations.</td>
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<tr>
<td>PSC 352</td>
<td>US - Latin American Relations 3(3-0)</td>
<td>An examination of the political, military, and economic relations between Latin America and the United States.</td>
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<tr>
<td>PSC 353</td>
<td>Model United Nations 3(3-0)</td>
<td>Introduces students to the activities of the United Nations and the protocol and procedures of diplomacy in order to participate in United Nations simulations. Prerequisites: 26 credits completed.</td>
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<tr>
<td>PSC 354</td>
<td>Advanced Model United Nations 1(1-0)</td>
<td>Allows advanced students to further their knowledge of the protocol and procedures of diplomacy and participate in United Nations simulations. Prerequisite: PSC 353.</td>
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<tr>
<td>PSC 355</td>
<td>Model United Nations Lab 1-Spec</td>
<td>This course is a &quot;lab&quot; for Model United Nations (PSC 353) and Advanced Model United Nations (PSC 354). Can be repeated up to a total of three credits: a one-credit lab for PSC 353 and a two-credit lab for PSC 354. Co-requisites: PSC 353 or 354.</td>
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</tr>
<tr>
<td>PSC 371</td>
<td>American Political Thought 3(3-0)</td>
<td>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. (University Program Group I-A)</td>
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<tr>
<td>PSC 372</td>
<td>American Radical Thought 3(3-0)</td>
<td>Study and analysis of the main social revolutionary ideologies of the left during the past 100 years in the United States.</td>
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<tr>
<td>PSC 373</td>
<td>American Individualism 3(3-0)</td>
<td>Integrates methods of social sciences and humanities in developing interdisciplinary analyses of the history, content, variety and normative implications of American Individualism. (University Program Group IV-A)</td>
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<tr>
<td>PSC 375</td>
<td>Socialism, Fascism, and Liberalism 3(3-0)</td>
<td>Political and psychological analyses of socialist, fascist, and liberal ideologies. (University Program Group IV-A)</td>
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</tr>
</tbody>
</table>

Descriptions of courses approved for the University Program appear in italic type.
PSC 556 International Law II 3(3-0)  
This course supplements the study of the international legal regime examined in International Law I by focusing upon the newly established international 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 intergovernmental cooperation.

PSC 565 Managing Modern Local Government 3(3-0)  

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 behavioral research, public opinion polling, and statistical analysis.

PSC 585 Public Sector Information Technology Management 3(3-0)  
To teach public administrators applied management techniques for public sector information systems, and the computer's role in the management of information in a democracy. Prerequisites: PSC 210; 56 semester hours completed or graduate status.

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 chairperson and instructor.

PSC 590 Special Topics in Political Science 1-12(Spec)  
Subject matter not included in courses currently listed in Bulletin. For graduate level course descriptions above 600, consult the current College of Graduate Studies 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 642 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 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 approved for offering in a distance learning format. (University Program Group III-A)

PSY 200 Special Issues: Title to be listed 1-12(Spec)  
Subjects of contemporary psychology not covered by regular curriculum. Prerequisites: See class schedule.

PSY 211 Independent Study in Psychological Statistics 3(3-0)  
Basic descriptive and inferential statistics are considered, including measures 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. (University Program 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. Prerequisites: 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 maximize performance. Prerequisite: PSY 100.

PSY 310 Psychological Testing 3(3-0)  
Theory and foundations of testing with some emphasis on the interpretation 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. Emphasis on research relevant to understanding development and implications of research for preventing and lessening common developmental problems. Prerequisites: PSY 220 or HFD 100 or EDU 280.

PSY 324 Childhood and Adolescence 3(3-0)  
Psychological development from childhood through the college years. Main topics are personality, social, and cognitive development. Prerequisites: PSY 220 or HFD 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 physiological, 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 on attitudes, interpersonal behavior, and group processes. Prerequisite: PSY 100. This course is approved for offering in a distance learning format.

PSY 332 Evolutionary Psychology 3(3-0)  
Examines human behavior from an evolutionary perspective. Topics include: evolutionary theory, sex and mating, child rearing, social relationships, and applications to health and work. Prerequisites: PSY 100 OR ANT 171 required; BIO 151 recommended. (University Program Group IV-A)

PSY 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 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. (University Program Group III-A)

PSY 336 Industrial/Organizational Psychology 3(3-0)  
The psychology of work and organizations. Introduction to the use and application 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 individual. 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)  
Theories and practice of psychological interviewing and counseling. Recommended: 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 promotion. 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 University Program course; competency in written English and mathematics. (University Program Group IV-A)

PSY 383 Learning and Memory 3(3-0)
Introduction to the major theoretical-empirical views that characterize the area of learning and memory. This course is approved for offering in a distance 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 experimental 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.

PSY 387 Behavioral Neuroscience 3(3-0)
Overview of the neurological processes underlying organicism behavior. Surveys neurobiological 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 (Subgroup IV-A)

PSY 400 Special Issues: Title to be listed 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum. Prerequisite: Class schedule.

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.

PSY 459 Stress 3(3-0)
Defines stress and how to measure it, evaluates evidence about causes and correlates of stress, and introduces strategies to deal with stress. This course is approved for offering in a distance learning format. Prerequisites: PSY 100.

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 relating to specific topics. Students will repeat this course for a maximum of 2 credits. Identical to BIO 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.

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 departmental office prior to registration.

PSY 497 Independent Study 1-4(Spec)
For students who accept responsibility for studying a psychological problem 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 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum. Prerequisites: See class schedule.

PSY 501 Workshop 1-18(Spec)
Study of problem-oriented subjects for persons already working in psychological services with the intent of continuing their professional growth. Prerequisite: see class schedule.

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.

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 509 Behavioral Pharmacology 3(3-0)
This course covers basic principles of pharmacology, receptor theory, drug classes, methods in basic pharmacology and behavioral pharmacology, and research and theory in behavioral pharmacology. Prerequisites: PSY 100; PSY 383 or SPE 384 or graduate standing.

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.

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.

PSY 531 Group Dynamics 3(3-0)
Conceptual and empirical background in the dynamics of face-to-face groups and related interpersonal issues. Emphasis is cognitive-theoretical rather than experiential. Prerequisite: PSY 330.

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 racist attitudes are covered. Prerequisites: junior or higher standing; PSY 330 or SOC 201; a social science methods class.

PSY 534 Psychology and the Courtroom 3(3-0)
The application of psychological principles and theories to the courtroom. Prerequisites: course work in basic statistics (e.g., PSY 211) and research methods (e.g., PSY 285); graduate standing. 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.

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 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.

PSY 538 Occupational Health Psychology 3(3-0)
The study of health and stress in organizations as a complex process, with analyses of resources, stressors, coping, stress responses, and consequences. Prerequisites: PSY 336 and 379, or graduate standing.

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.

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)
Graduate courses for therapeutic intervention including theory and technique. Prerequisite: PSY 350 or graduate standing.

PSY 575 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 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 behavioral 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 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.

PSY 584 Cognitive Neuroscience 3(3-0)
Converging evidence from human neuroanatomy and neurophysiology, cognitive psychology, neuropsychology, and neuroimaging research will be examined for topics in attention, perception, memory, language, and emotion. Prerequisites: PSY 387 or graduate standing.

Descriptions of courses approved for the University Program appear in italic type.
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 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, and upper-division or graduate standing.

PSY 587 Physiological Psychology 3(3-0)
Physiological events which underlie human and animal behavior. Prerequisite: PSY 386 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 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 386.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

PSY 600 Special Issues 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 Personnel 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 695 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 A: 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 Therapy 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 (PT)

See the School of Rehabilitation and Medical Sciences for more information. For graduate level course descriptions above 600, 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 626 Neuropsychology 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 3(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 675 Motor Learning in Neurorehabilitation 2(2-0)
PTH 679 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 II 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 3(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 I 4(4-0)
PTH 791 Clinical Research I 4(4-0)
PTH 792 Clinical Research I 4(4-0)
PTH 793 Clinical Research I 4(4-0)
PTH 794 Clinical Research I 4(4-0)
PTH 795 Clinical Research II 4(4-0)
PTH 796 Clinical Research II 4(4-0)
PTH 797 Clinical Research II 4(4-0)
PTH 798 Clinical Research II 4(4-0)

Descriptions of courses approved for the University Program appear in italic type.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL 101</td>
<td>World Religions: An Introduction to the Study of Religion</td>
<td>3(3-0)</td>
<td></td>
<td>See the Department of Philosophy and Religion for more information.</td>
</tr>
<tr>
<td>REL 140</td>
<td>Religion, Race and Discrimination in America</td>
<td>3(3-0)</td>
<td></td>
<td>This course is approved for offering in a distance learning format. (University Program Group I-A)</td>
</tr>
<tr>
<td>REL 130</td>
<td>Religion in America</td>
<td>3(3-0)</td>
<td></td>
<td>An introduction to the varieties of religious experience in America; emphasis on the ways religious traditions have interacted with American culture and politics. (University Program Group I-A)</td>
</tr>
<tr>
<td>REL 297</td>
<td>Special Studies</td>
<td>1-6 (Spec)</td>
<td>Prerequisite: permission of instructor.</td>
<td>This course is approved for offering in a distance learning format. (University Program Group IV-A)</td>
</tr>
<tr>
<td>REL 260</td>
<td>The New Testament and Its Age</td>
<td>3(3-0)</td>
<td></td>
<td>Introductory-level study of selected portions of New Testament literature, with an introduction to the Hellenistic-Roman age through study of selected contexts. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 250</td>
<td>Judaism</td>
<td>3(3-0)</td>
<td></td>
<td>The place and image of women in major religious traditions. Emphasis on current 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. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 240</td>
<td>African-American Religion</td>
<td>3(3-0)</td>
<td></td>
<td>This course is approved for offering in a distance learning format. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 241</td>
<td>Religious Traditions of India</td>
<td>3(3-0)</td>
<td></td>
<td>Study of the basic character of Chinese religion, including Chinese Buddhism. Examines both popular religion and major traditions (Confucian, Taoist). (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 221</td>
<td>Religious Traditions of Japan</td>
<td>3(3-0)</td>
<td></td>
<td>Introduction to the major characteristics of Japanese religion, including Shinto and Chinese Confucian and Buddhist elements; emphasis on religion in a Japanese cultural setting. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 222</td>
<td>Religious Traditions of India</td>
<td>3(3-0)</td>
<td></td>
<td>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. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 235</td>
<td>Religion and Social Issues</td>
<td>3(3-0)</td>
<td></td>
<td>Introduction to religious ethical thought in its personal, social and institutional contexts, considered in relation to current societal, medical, and sexual issues. (University Program Group IV-A)</td>
</tr>
<tr>
<td>REL 340</td>
<td>African-American Religion</td>
<td>3(3-0)</td>
<td></td>
<td>The literature, history, and religion of ancient Israel in its Near Eastern context as disclosed through study of the Hebrew Bible in English translation. (University Program Group I-A)</td>
</tr>
<tr>
<td>REL 260</td>
<td>The New Testament and Its Age</td>
<td>3(3-0)</td>
<td></td>
<td>Intensive study of selected portions of New Testament literature, with an introduction to the Hellenistic-Roman age through study of selected background documents. (University Program Group I-A)</td>
</tr>
<tr>
<td>REL 297</td>
<td>Special Studies</td>
<td>1-6 (Spec)</td>
<td>Prerequisite: permission of instructor.</td>
<td>This course is approved for offering in a distance learning format. (University Program Group IV-A)</td>
</tr>
<tr>
<td>REL 301</td>
<td>Myth and Meaning</td>
<td>3(3-0)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REL 302</td>
<td>Witchcraft, Magic, and Occult Phenomena</td>
<td>3(3-0)</td>
<td></td>
<td>A study of witchcraft in its European and African settings as well as a study of the intellectual history of witchcraft and occultism.</td>
</tr>
<tr>
<td>REL 303</td>
<td>Goddesses</td>
<td>3(3-0)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REL 304</td>
<td>Religion and Psychology</td>
<td>3(3-0)</td>
<td></td>
<td>Surveys classical and contemporary psychological theories of religion, including the behavioral, comparative, and cognitive perspectives; also explores the psychological role of religion in human life.</td>
</tr>
<tr>
<td>REL 305</td>
<td>Mysticism</td>
<td>3(3-0)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REL 313</td>
<td>Christianity</td>
<td>3(3-0)</td>
<td></td>
<td>Development of the Christian religious tradition from Jesus of Nazareth to its major contemporary branches: Orthodoxy, Roman Catholicism, and Protestantism. (University Program Group I-A)</td>
</tr>
<tr>
<td>REL 314</td>
<td>Islam</td>
<td>3(3-0)</td>
<td></td>
<td>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. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 315</td>
<td>Judaism</td>
<td>3(3-0)</td>
<td></td>
<td>Judaism as a multifaceted approach to identity and lifestyle, both personal and societal; religious expressions such as Torah, myth, ritual, festivals, holy days. (University Program Group I-A)</td>
</tr>
<tr>
<td>REL 320</td>
<td>The Buddhist Tradition</td>
<td>3(3-0)</td>
<td></td>
<td>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. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 330</td>
<td>Religious Issues In Modern America</td>
<td>3-6 (Spec)</td>
<td>Prerequisite: 12 hours of college credit.</td>
<td>This course is approved for offering in a distance learning format. (University Program Group IV-A)</td>
</tr>
<tr>
<td>REL 334</td>
<td>Death and Dying: Religious Dimensions</td>
<td>3(3-0)</td>
<td></td>
<td>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. This course is approved for offering in a distance learning format. (University Program Group IV-A)</td>
</tr>
<tr>
<td>REL 340</td>
<td>Modern Religious Thought</td>
<td>3(3-0)</td>
<td></td>
<td>Studies major issues in modern religious thought: e.g., religion and science; theologies of liberation; Christianity and the encounter of world religions.</td>
</tr>
<tr>
<td>REL 342</td>
<td>From Spirituals to Gospel</td>
<td>3(3-0)</td>
<td></td>
<td>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. (University Program Group IV-C)</td>
</tr>
<tr>
<td>REL 345</td>
<td>The Civil Rights Movement</td>
<td>3(3-0)</td>
<td></td>
<td>Examines the civil rights movement from 1954 to 1980s; 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 125, REL 140, SOC 100. (University Program Group IV-C)</td>
</tr>
<tr>
<td>REL 338</td>
<td>Religion in Popular Culture</td>
<td>3(3-0)</td>
<td></td>
<td>This course examines the religious dimension of contemporary popular culture. Topics include myth and the ritual in secular society, and popular artistic representations of the divine. (University Program Group IV-B)</td>
</tr>
<tr>
<td>REL 347</td>
<td>African American Reflections on Racism</td>
<td>3(3-0)</td>
<td></td>
<td>Impact of and resistance to racism treated in theoretical works (theology, ethics, social sciences) and illustrated in the lives and creative works of African Americans. (University Program Group IV-C)</td>
</tr>
<tr>
<td>REL 351</td>
<td>Prophecy and Prophets</td>
<td>3(3-0)</td>
<td></td>
<td>Psychological and spiritual phenomenon of propheticism in the Ancient Near East; intensive study of Old Testament prophetic literature; historical context, literary form, theological content.</td>
</tr>
<tr>
<td>REL 362</td>
<td>The Apocalyptic Message and Method</td>
<td>3(3-0)</td>
<td></td>
<td>Exploration of apocalyptic thought and literature; examination of its significance and continuing influence; evaluation of its method and approach.</td>
</tr>
<tr>
<td>REL 363</td>
<td>Ethics and Morality in the Bible</td>
<td>3(3-0)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REL 365</td>
<td>The Sayings of the Historical Jesus</td>
<td>3(3-0)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REL 367</td>
<td>Paul: His Life, Letters and Legacy</td>
<td>3(3-0)</td>
<td></td>
<td>Study of Paul's environment, life, work, and letters and his influence on the subsequent history of Christian thought.</td>
</tr>
<tr>
<td>REL 382</td>
<td>History of Israel</td>
<td>3(3-0)</td>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>REL 397</td>
<td>Special Studies</td>
<td>1-9 (Spec)</td>
<td>Prerequisite: permission of instructor.</td>
<td>Each offering studies a selected topic using readings, discussions, lectures, and research as appropriate.</td>
</tr>
<tr>
<td>REL 492</td>
<td>Readings in World Religion</td>
<td>1-9 (Spec)</td>
<td>Prerequisite: permission of instructor.</td>
<td>Advanced independent study for the interested and qualified student.</td>
</tr>
</tbody>
</table>
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 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 be introduced to recreation activity topics and skills as lifetime leisure pursuits. Repeatable up to 3 credits when content previously studied is not duplicated. Not to be applied to 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 study of leisure and its implications for an individual's quality of life.

RPL 118 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 200 Special Topics in Recreation 1-6(Spec)
Concentrated study of a current recreation topic.

RPL 204 Community Recreation 3(3-0)
Introduction and study of interrelationships of community organizations sharing a recreation responsibility.

RPL 205 Outdoor Leadership 3(2-2)
Introduction to outdoor leadership; study of leadership in outdoor and camp settings.

RPL 206 Recreation Activities Leadership 3(3-0)
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(3-0)
Introduction of recreation programming for diverse populations including: population characteristics, programming applications (benefits/limitations), legal and legislative considerations, and history/trends.

RPL 216 Introduction to Outdoor Recreation 3(3-0)
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(3-0)
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(3-0)
Introduction to techniques and practices for camp counseling and leadership positions.

RPL 261 Introduction to Private and Commercial Recreation 3(3-0)
An introduction to the broad areas of, and career opportunities in, commercial recreation and facility management.

RPL 303 Independent Reading 1(Spec)
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(3-0)
The development of conceptual and human relations skills necessary to the successful management of a leisure service agency. Prerequisites: RPL 116; One of the following: RPL 204 or 216 or 261.

RPL 310 Pre-Internship in Leisure Services 1(1-0)
Preparation for participation in the internship experience. Should be taken two semesters prior to internship. CR/NC only. Prerequisites: RPL 204 or 216 or 261.

RPL 318 Field Course in Recreation Specialization 1-15(Spec)
Supervised practical, field work experience within a leisure services organization.

RPL 320 Internship in Recreation 1-30(Spec)
In-depth, capstone internship experience in commercial, community, therapeutic, or outdoor recreation. Prerequisite: RPL 310.

RPL 321 International Practicum in Leisure Services 1-30(Spec)
In-depth, practical field experience for international students with a leisure or recreation agency. Prerequisites: Signed major in recreation or related field of study at the student's home university.

RPL 340 Therapeutic Recreation: Developmental Disabilities 3(3-0)
Concepts, interventions and therapeutic recreation programming strategies for persons with developmental disabilities.

RPL 341 Therapeutic Recreation: Physical Disabilities 3(3-0)
Implications for therapeutic recreation in the rehabilitative process involving persons with physical disabilities. Prerequisites: RPL 210, PES 388, or SPE 126.

RPL 342 Therapeutic Recreation: Emotional Impairments 3(3-0)
The role of therapeutic recreation in the rehabilitation process and implementation of diagnostically designed programs for the emotionally impaired.

RPL 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. Equivalent 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(3-0)
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(3-0)
Concepts, interventions, and therapeutic recreation programming strategies for elderly people with disabilities.

RPL 346 Recreation for Senior Citizens 3(3-0)
Proposing, organizing, administering, and conducting recreation activities for older adults.

RPL 347 Special Olympics: Management, Coaching, and Volunteering 3(3-0)
Organize, conduct, coach or direct athletes involved in Special Olympic competition. Students will work with Special Olympics Michigan. CR/NC only.

Descriptions of courses approved for the University Program appear in italic type.
RPL 348 Aquatic Therapy Seminar 1(1-0)
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. Pre/Co-Req: RPL 341. Recommended: Signed major in Allied Health.

RPL 350 Administration and Operations of Aquatic Facilities 3(3-0)
This course provides operational knowledge and skills for the administration, operations and programming of aquatic facilities for private or public sector leisure service agencies. Prerequisite: Junior class standing.

RPL 359 Foundations of Outdoor and Environmental Education 3(3-0)
Introduction to the foundational concepts, principles, and teaching methods of outdoor and environmental education for non-formal and formal education settings.

RPL 369 Advanced Expedition Planning 3(3-0)
Advanced concepts of wilderness expedition planning. The course focuses on equipment, techniques, and the leadership of land and water based expeditions. Prerequisites: RPL 205, 216. Recommended: prior backpacking experience.

RPL 360 Advanced Wilderness Adventure Trip Facilitation 3(Spec)
Development of wilderness adventure facilitation skills including group management, group goal setting, environmental ethics, advanced camping, and wilderness navigation skills. Prerequisite: RPL 118. Recommended: prior backpacking and camping experience.

RPL 365 Wilderness First Responder 3(3-0)
In-depth emergency medical training for wilderness settings. Prerequisite: RPL 216.

RPL 400 Special Issues in Leisure Services 1-6(Spec)
In-depth study of a special issue in leisure services. May be repeated up to six credits for different topics. Prerequisite: RPL 118.

RPL 405 Administration of Community Leisure Services 3(3-0)
The organization and administration of community leisure services. Prerequisites: RPL 118; one of the following: RPL 204, 216, 261.

RPL 420 Planning and Facility Design for Leisure 3(3-0)
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(3-0)
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 261; or signed Event Management minor.

RPL 435 Leadership in Adventure Education Programming 3(3-0)
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 205.

RPL 436 Recreation Facility Operations 3(3-0)
Develop operational knowledge related to the operation and organization of recreation complexes. Prerequisites: One of the following: RPL 204, 216, 261; signed minor in Event Management. Recommended: RPL 307, 405.

RPL 438 Meeting and Exposition Planning 3(3-0)
The development of skills and knowledge necessary for successful planning and management of conventions, meetings, and expositions in a commercial recreation setting. Prerequisite: RPL 430.

RPL 440 Special Event Administration 3(3-0)
Explore the dynamics of the event industry. Develop skills in event administration, logistics, revenue development, proposals, design, planning and coordination of large-scale special events. Prerequisites: RPL 430.

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 Management minor. Recommended: RPL 307, 405.

RPL 470 Park and Natural Resource Management 3(3-0)
Management of federal, state, and local park systems, and natural resource areas. Focuses on environmental issues, administration, planning, personnel, marketing, and maintenance. Prerequisites: RPL 118; one of the following: RPL 204, 216, 261.

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. CR/NC only. Prerequisites: Permission of instructor.

RPL 508 Budgeting for Leisure Service Agencies 3(3-0)
Basic budgetary principles and procedures for leisure service agencies. Prerequisite: RPL 204 or 216 or 261 or 264 or graduate status.

RPL 511 Liability and Risk Management in Leisure Services 3(3-0)
Situation analysis of the legal systems impacting the delivery of recreation and leisure services. Emphasis on applied legal understanding and loss control strategies. This course is approved for offering in a distance learning format. Prerequisites: 6 credits in RPL or signed Event Management Minor or Graduate Status.

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 development 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 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)
Development of the skills to produce and interpretive programs in parks, camps, natural areas, and visitor and nature centers located in urban and rural areas. Prerequisites: RPL 350 or Graduate status.

RPL 560 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 credentialing, third-party reimbursement, accreditation standards, legislation, ethics, and other administrative issues. Prerequisite: RPL 210 or graduate status. Co-requisites: Two of the following: RPL 340, 341, 342, 344, 345.

For graduate level course descriptions above 600, 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 636 Recreation Facility Operations and Management 3(3-0)
RPL 652 Outdoor Recreation 3(3-0)
RPL 698 Graduate Internship 1-6(Spec)
RPL 699 Graduate Project 1-6(Spec)
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. (University Program Group IV-B)

RUS 102 Elementary Russian II 4(4-0)
Basic language skills. Continuation of RUS 101. Prerequisite: RUS 101.

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.

RUS 202 Intermediate Russian II 4(4-0)
Continuation of RUS 201. Prerequisite: RUS 201.

Science of Advanced Materials (SAM)
For graduate level course descriptions above 600, 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(Spec)
SAM 700 Advanced Materials I: Inorganic and Nanomaterials 3(3-0)
SAM 710 Advanced Materials II: Polymers, Composites and Biomaterials 3(3-0)
SAM 720 Materials Characterization and Modeling Lab 3(1-6)
SAM 785 Seminar: Current Topics in the Science of Advanced Materials 1(10-Spec)

Descriptions of courses approved for the University Program appear in italic type.
SAM 796 Directed Research in the Science of Advanced Materials 1-48(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 within 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 instructor.

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 designators: 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 investigate connections and interrelationships between Earth system components and how these affect civilization and society. Prerequisites: 36 credits of required 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. (University Program 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. (University Program 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 social 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.

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, sexuality. Prerequisite: SOC 100 or 201 or 221.

SOC 220 Introduction to Social and Criminal Justice 3(3-0)
Components of the justice system. Social, criminal, and community-focused. 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 University Program Group III-B. (University Program 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. Prerequisites: SOC 100 or SOC 201 or SOC 221.

SOC 223 Urban Structures and Change 3(3-0)
Culture and social system of the city. Demographic structures, patterns of conflict and cooperation, and problems peculiar to urban social organization. Prerequisite: any course from sociology, political science. (University Program Group IV-A)

SOC 301 Sociological Theory 3(3-0)
A review of sociological thought 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, consequences, 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, including 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 panic, riots, and social movements. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301

SOC 307 Social Movements, 1960s to the Present 3(3-0)
A survey of social movements of the past several decades that have promoted progressive social change, equal rights, liberation, and peace. Prerequisite: 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 culture; emphasis on everyday life, family, and social institutions, as well as overviewing the former USSR. (University Program 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 schools. Gender inequality and factors that promote its reproduction. 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. (University Program 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. Prerequisites: 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 125, REL 140; SOC 100. (University Program 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 and/or social work.

Descriptions of courses approved for the University Program appear in italic type.
SOC 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 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. Prerequisite: 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 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 WST 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.

SOC 411 The Family 3(3-0)
Family as a contested social institution embedded in changing social and cultural contexts. Explores kinship systems, family diversity, social organization, social conflict, family policy, and change. Prerequisites: SOC 100 or 201 or 221.

SOC 412 Sociology of Adolescence 3(3-0)
Transition from childhood to adulthood. Emphasis on topics such as identity, peers, relationships with parents, school, and the media. Prerequisite: SOC 100 or 201 or 221.

SOC 413 Work and Careers in America 3(3-0)
Introduction to the world of work, occupations and professions. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301.

SOC 415 Sociology of Sport 3(3-0)
Social structure and consequences of sport as an institution in societies. Prerequisite: SOC 100 or 201 or 221.

SOC 418 Sociology and Popular Culture 3(3-0)
Sociological analysis of popular culture in the U.S. Elements of popular culture include television, radio, recording, advertising, spectator sports, hobbies, food, and fashions. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 422 Youth Wellbeing 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 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 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 323, 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 nonwork 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; 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; SOC 220 and an additional 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 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 200, 301, 350 or regular admission to the Sociology Graduate Program.

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. 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.

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.

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 graduate level course descriptions above 600, 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 Methodology of 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)
Special Education (SPE)

See the Department of Counseling and Special Education for more information.

SPE 126 Introduction to Special Education (3-0)
Education of students who deviate significantly from the norm intellectually, physically, emotionally, socially, or educationally. Special activities or seminars which have a fee may be required.

SPE 322 Curriculum and Instruction for Students with Special Needs (6-0)
Special education instructional design and methodology. Includes critical teaching behaviors, strategy instruction, classroom organization and management, and technology. Grade of C+ or better required. Prerequisites: SPE 126 with grade of C or better.

SPE 323 Classroom Management for Students with Special Needs (3-0)
Intervention approaches to design positive classroom environments. Includes identification of behavioral/affective issues, social skills instruction, and proactive classroom management approaches. Grade of C+ or better required. Prerequisites: SPE 126 with a grade of C or better; SPE 322 with grade of C+ or better. SPE 323 may be taken as a corequisite with SPE 324.

SPE 324 Special Education Classroom-Based Assessment (6-2-8)
This course is designed to present information on the most current trends in classroom-based assessment, with emphasis placed on curriculum-based assessment methods. Grade of C+ or better required. Prerequisites: SPE 126 with a grade of C or better; SPE 322 and SPE 323 with a grade of C+ or better; PSY 310. SPE 323 may be taken as a corequisite with SPE 324.

SPE 455 Special Education Student Teaching Seminar (3-0)
This seminar provides review and discussion of a variety of topics related to the special education student teaching experience at the elementary through secondary level. CR/NC only. Prerequisites: student must have 75 percent of major/minor coursework completed, and show a GPA of 2.7 or better in major/minor coursework. Must co-register for one of the following courses: SPE 456 or SPE 458.

SPE 456 Special Education Student Teaching: Emotional Impairment (6-Spec)
This course provides a full-time ten week field experience working with students with emotional impairment in a classroom appropriate to the special education endorsement. Prerequisites: Elementary Regular Education Students: completion of EDU 107, EDU 320, and EDU 330 with grades of C+ or better; completion of EDU 343, EDU 345 or EDU 361 with a grade of C+ or better; PSY 220. No grades less than a C+ in all EDU classes. Secondary Regular Education Students: completion of EDU 107, EDU 290, EDU 310, EDU 322, SPE 323, SPE 324 with grades of C+ or better; PSY 220. No grades less than a C+ in all EDU classes. Both: approval by major and minor departments indicating that 75 percent of coursework is completed with a GPA of 2.7 or better. Overall GPA of 2.7 or better. SPE 455 as a corequisite. Completion of SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310.

SPE 458 Special Education Student Teaching: Cognitive Impairment (6-Spec)
This course provides a full-time ten-week field experience working with students with cognitive impairment in a classroom appropriate to the special education endorsement. Prerequisites: Elementary Regular Education Students: completion of EDU 107, EDU 320 and EDU 330 with grades of C+ or better; completion of EDU 343, EDU 345 or EDU 361 with a grade of C+ or better; PSY 220. No grades less than a C+ in all EDU classes. Secondary Regular Education Students: completion of EDU 107, EDU 290, EDU 310, EDU 325 with grades of C+ or better; PSY 220. No grades less than a C+ in all EDU classes. Both: approval by major and minor departments indicating that 75 percent of coursework is completed with a GPA of 2.7 or better. Overall GPA of 2.7 or better. SPE 455 as a corequisite. Completion of SPE 319, SPE 521, and SPE 522 with grades of C+ or better.

SPE 456 Independent Study 1-3(Spec)
Individualized research or project dealing with a problem in special education. Prerequisite: permission of department chairperson.

SPE 500 Parent and Professional Relationships in Special Education 3(3-0)
Establishing and maintaining collaborative relationships with parents and professionals. Study of effects of an exceptional child on the family and methods for meeting their needs. Prerequisite: admission to Teacher Education or senior status. Graduate students may be admitted with permission of instructor.

SPE 540 Teaching Students in Inclusive Settings 3(3-0)
Theory and practice of the instruction of students who have disabilities in general education settings. Prerequisite: senior or graduate status.

SPE 510 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 EDU 590. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisite: EDU 290 or graduate status.

SPE 519 Teaching the Student with Mild Cognitive Impairment 3(3-0)
Causes of characteristics of mild cognitive impairment as well as curriculum 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.

SPE 522 Field Experience-Cognitive Impairment 3(6-Spec)
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 a grade of C or better; SPE 322, SPE 323, SPE 324, SPE 519 and SPE 521 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 must be filed during the semester prior to registration for approval. Prerequisites: SPE 530, SPE 531, PSY 586, 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 554 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. Prerequisite: SPE 126 with 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 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

Descriptions of courses approved for the University Program appear in italic type.
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 334, SPE 375, and SPE 379 with grades of C+ or better; admission to Teacher Education; PSY 310.

For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

SPN 600 Current Issues in Special Education 3(3-0)
SPN 619 Continuing Registration for Final Research Project 1(1-0)
SPN 640 Administration of Special Education 3(3-0)
SPN 645 Special Education Workshop 1-6(Spec)
SPN 665 Independent Study 1-3(Spec)
SPN 666 Independent Study 1-3(Spec)
SPN 675 Teaching the Student with Learning Disabilities 3(3-0)
SPN 678 Education of Students with Severe Emotional Impairment 3(3-0)
SPN 679 Behavioral and Curricular Interventions for Individuals with Mild Disabilities 3(3-0)
SPN 685 Innovative Cognitive Techniques in Special Education 3(3-0)
SPN 689 Graduate Practicum in Special Education 3-6(Spec)
SPN 695 Research for Counseling and Special Education 3(3-0)
SPN 720 Seminar: Teaching Students with Severe Cognitive Impairment 3(3-0)
SPN 741 Seminar: Administration of Special Education 2(2-0)
SPN 750 Consultant Skills for Special Educators and Counselors 3(3-0)
SPN 775 Seminar: Learning Disabilities 3(3-0)
SPN 785 Seminar in Special Education 3(3-0)
SPN 790 Seminar: Investigations and Solutions in Special Education 3(3-0)
SPN 798 Thesis 1-6(Spec)

Spanish (SPN)
See the Department of Foreign Languages, Literatures, and Cultures for more information.

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. (Group IV-B) This course is approved for offering in a distance learning format.

SPN 102 Elementary Spanish II 4(4-0)
Basic language skills. Continuation of SPN 101. Recommended: SPN 101. (University Program 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. (University Program Group IV-B)

SPN 202 Intermediate Spanish II 4(4-0)
Designed to develop fluency in reading Spanish; cultural emphasis. Recommended: SPN 201. (University Program 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 202.

SPN 214 Intermediate Conversation and Composition 3(3-0)
Designed to develop fluency and accuracy in written and oral expression. Recommended: SPN 202; or may be taken concurrently with SPN 202. (University Program Group IV-B)

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, SPN 214.

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.

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 and SPN 214.

SPN 370 Advanced Studies in Spanish 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. 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 language and culture 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.

SPN 405 Modern Spanish Novel 3(3-0)
Development of the novel in Spain from the eighteenth century to 1940. Recommended: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389.

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.

SPN 410 Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisite: 6 hours at the 300 level; 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.

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.

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.

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. Corequisite: SPN 421.

SPN 470 Advanced Studies in Spanish 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: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389.

SPN 508 Contemporary Spanish Novel and Short Story 3(3-0)
Outstanding 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.

Descriptions of courses approved for the University Program appear in italic type.
STA 585 Mathematical Statistics II 3(3-0)
Introduction to topics from mathematical theory of statistics: population distributions, sampling distributions, point and interval estimation, tests of hypotheses. Prerequisite: STA 584.

STA 586 Clinical Trials and Survival Analysis 3(3-0)
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.

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 designs. Prerequisites: STA 580.

STA 588 Sampling Techniques 3(3-0)
Principles of sampling; simple random sampling; stratified random sampling; systematic sampling; cluster sampling; sample size determination; ratio and regression estimation; comparisons among the designs. Prerequisites: STA 382.

STA 589 Time Series Forecasting 3(3-0)
Introduction to basic time series forecasting techniques. Topics include forecasting, Box-Jenkins models, time series regression, exponential smoothing, and transfer function models. Prerequisites: STA 580.

STA 590 Applied Statistical Methods II 3(3-0)
Multivariate ANOVA, multiple regression, 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 graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

STA 560  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 1-9(Spec)

STA 784  Theory of Estimation 3(3-0)

STA 797  Independent Study 1-9(Spec)

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 I 3(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; SOC 200; completion of 24 credit hours. Pre/Co-requisites: SWK 250; SOC 350.
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.
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: BIO 151; Pre/Co-Requisites: SWK 250, SWK 315; signed social work minor.
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; Pre/Co-Requisite: SWK 470.
SWK 470 Social Work Practicum I 4(Spec)
Supervised social work field experience in a social agency. Includes 200 hours in field & 5 seminars. Must be taken within 2 years of completion of course prerequisites. Prerequisites: Signed social work major; SWK 321, SWK 375, SWK 331 as co-requisite.
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 597 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. (University Program 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. (University Program 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 178 Special Topics in Theatre 3-9(Spec)
Current topics for each semester listed in the class schedule. May be repeated for a maximum of 9 credit hours.

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)
Screening 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.

Descriptions of courses approved for the University Program appear in italic type.
TAI 378 Stage Combat 3(2-2)
Basic principles of stage combat as they apply to hand-to-hand, quarterstaff, 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. Prerequisites: TAI 177, TAI 380.

TAI 382 Acting Ill 3(3-0)
Period movement patterns, pantomime techniques, and regional and cultural dialects, with individual scenes prepared for critical evaluation. Prerequisite: 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 30 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.

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 1-9(Spec)
Special 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: Interpretative 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.

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.

TAI 577 Special Topics in Technical Theatre 1-8(Spec)
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 8 hours. Prerequisites: Two from the following: TAI 177, TAI 278, TAI 377, TAI 477.

TAI 578 Special Topics in 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 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; AMD 140.

TAI 580 Dramatic Theory and Criticism 3(3-0)
Analysis of significant theories of theatre and drama. Prerequisite: TAI 574 or TAI 575.

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 CDA 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.

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 literature.

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.

TAI 589 Theatre Workshop 2-6(Spec)
Theoretical and practical work in productions 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 graduate level course descriptions above 600, 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(1-0)

TAI 790 Advanced Independent Study 1-4(Spec)

TAI 798 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. Prerequisite: TEC 320.

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, IET 309, 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 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 323.

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 326

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. Prerequisite: TEC 320.

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 design and tooling. Prerequisites: TEC 326

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 306

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 322 or instructor's approval.

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 322.

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 322.

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.

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.

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 329

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 328

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 328

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 328

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 329

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.

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.

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.

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.

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/assembly implementation. Prerequisites: ENG 303, TEC 324 and Permission of Director; Graduating senior 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.

TEC 700 Readings in Technology 3(3-0)
For graduate level course descriptions above 600, consult the current College of Graduate Studies Bulletin.

Women's Studies (WST)

See the Interdisciplinary Women's Studies Major and Minor for more information, or contact the Women's Study 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 2(2-2)
The place and image of women in major religious traditions. Emphasis on current literature about religious reform, creation of alternative institutions, new concepts of spirituality. Identical to REL 207. Credit may not be earned in more than one of these courses. (University Program 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 HSC 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.

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. (University Program 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. (University Program 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 BLR 325. Credit may not be earned in more than one of these courses. (University Program Group III-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. (University Program Group IV-A)

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. (University Program 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. (University Program 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)
Focusses on the role of communication in the creation and perpetuation of gender stereo types. 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 326, 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/WST 426 and 3 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.
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FREDRICK G. BRISCOE (1972-1996) ASSISTANT PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
ELLIS R. BROCKMAN (1969-1994) PROFESSOR, BIOLOGY
LARRY L. BRONSON (1967-1998) PROFESSOR, ENGLISH
ELIZABETH J. BROWN (1976-2001) PROFESSOR, SCHOOL OF MUSIC
WILLIAM T. BULGER (1957-1992) PROFESSOR, HISTORY
ROY F. BURLINGTON (1970-2002) PROFESSOR, BIOLOGY
MISS NIKOLINE A. BYE (1942-1974) PROFESSOR, MATHEMATICS
SANDRA E CAIN (1973-2003) PROFESSOR, EARLY CHILDHOOD AND ELEMENTARY ED, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
LARRY D. CALDWELL (1961-2004) PROFESSOR, BIOLOGY
SARAH A. CAMPBELL (1966-2008) DIRECTOR, UNIVERSITY HEALTH SERVICES
JOYCE L. CAPEN (1971-2000) PROGRAMMER ANALYST, INFORMATION TECHNOLOGY
MICHAEL PATRICK CAREY (1967-1992) DIRECTOR, PLACEMENT
TERRENCE J. CAREY (1970-1982) VICE PRESIDENT, UNIVERSITY RELATIONS
CHARLES E. CARLSON (1973-2003) ACADEMIC ADVISOR, EXTENDED LEARNING
JAMES L. CARROLL (1971-1999) PROFESSOR, PSYCHOLOGY
GERALD CARTER (1970-1997) PROFESSOR, ENGLISH
THOMAS JOHN CENTKO (1995-2006) MANAGER/UPPER PENINSULA, MICHIGAN SPECIAL OLYMPICS
ROBERT ALLAN CHAFFER (1970-2005) ASSOCIATE PROFESSOR, MATHEMATICS
GERALD M. CHURCH (1970-1992) ASSISTANT TO THE DEAN, COLLEGE OF BUSINESS ADMINISTRATION
SUSAN ELAINE CLARKSON (1967-1997) ASSOCIATE DEAN, DEAN OF STUDENTS OFFICE
ROBERT GRANT CLASON (1967-1997) PROFESSOR, MATHEMATICS
RICHARD B. CLEMMER (1982-2007) ASSOCIATE PROFESSOR, ECONOMICS
BYRON C. CLENDENING (1947-1981) ADMINISTRATOR, INSTRUCTIONAL RESOURCES, INSTRUCTIONAL MATERIALS CENTER
LOREN R. CLIFFORD (1966-2000) PROFESSOR, PHYSICS
PATRICK F. COAKLEY (1998-2002) ASSOCIATE DIRECTOR, CAREER SERVICES
ROBERT CONNELL (1962-1981) REGISTRAR, REGISTRAR’S OFFICE
SUSAN P. CONNER (1987-2001) ASSOCIATE DEAN/PROFESSOR, COLLEGE OF HUMANITIES AND SOCIAL AND BEHAVIORAL SCIENCES
JONAS E. COOK (1986-2005) ASSOCIATE VICE PRESIDENT, FINANCIAL SERVICES & REPORTING
CATHERINE A. CORDERMAN (1986-2002) PROGRAM ADMINISTRATOR, PROFED - OFF CAMPUS
LOUISE COVA (1963-1986) EXECUTIVE ADMINISTRATIVE AIDE, PROVOST’S OFFICE
MARY K. COXON (1964-2000) ASSISTANT MANAGER, BOOKSTORE
ROBERT CRAIG (1980-2008) PROFESSOR, SCHOOL OF BROADCAST AND CINEMATIC ARTS
HAROLD B. CRAWLEY (1967-1997) ASSOCIATE PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
JOHN R. CUMMING (1961-1982) DIRECTOR, LIBRARIES
EMMA J. CURTIS (1973-1995) COORDINATOR, PAYROLL, PAYROLL/TRAVEL/FIS
JANET D’AMBROSIO (1968-1998) COORDINATOR OF SCHEDULING, REGISTRAR’S OFFICE
RICHARD EDMUND HECKSEL (1966-1988) ADMINISTRATOR, SCHOLARSHIPS & FINANCIAL AID
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ROGER L. HENRIE (1997-2002) PROFESSOR, GEOGRAPHY
SUSANNE FARHNAM HIEBER (1979-1999) COORDINATOR, STUDENT SERVICES, EXTENDED LEARNING
MONTE L. HIGGINS (1966-2000) DIRECTOR, CMU PUBLIC TELEVISION, PUBLIC BROADCASTING
CONNIE L. HILDEBRAND (1996-2008) OFF-CAMPUS LIBRARY, LIBRARIES
JAMES L. HILL (1970-1995) VICE PRESIDENT, STUDENT AFFAIRS
BRIDGET C. HINKLEY (1966-1997) NURSE PRACTITIONER, UNIVERSITY HEALTH SERVICES
CAROLYN JOYCE HOFFMAN (1980-2001) ASSOCIATE PROFESSOR, HUMAN ENVIRONMENTAL STUDIES
ROBERT E. HOFFMAN (1972-1997) ASSOCIATE PROFESSOR, BUSINESS INFORMATION SYSTEMS
DONALD E. HOLLAND (1963-1997) ASSOCIATE PROFESSOR, COUNSELING CENTER
JEAN M. HOLLAND-WOOD (1966-1989) PROFESSOR, PSYCHOLOGY
JOAN HORNAK (1978-2008) PROFESSOR, COUNSELING AND SPECIAL EDUCATION
NANCY LOUISE HOUSE (1972-2000) MANAGER, FOOD LABS, HUMAN ENVIRONMENTAL STUDIES
CAROLE ALICE HOWARD (1970-1988) PROFESSOR, PHYSICAL EDUCATION & SPORT
JAMES F. HOWELL (1971-1998) ASSOCIATE PROFESSOR, ENGLISH
MARIA S. HUETTIG (1973-2001) PROFESSOR, FOREIGN LANGUAGES, LITERATURES & CULTURES
DIANA LYNN HUGHES (1982-2002) PROFESSOR, COMMUNICATION DISORDERS
THOMAS M. HUNT (1972-2003) DIRECTOR, CMU PUBLIC RADIO, PUBLIC BROADCASTING
YURY IONIN (1989-2007) PROFESSOR, MATHEMATICS
BARUCH S. JACOBSON (1968-1991) PROFESSOR, PHYSICS
MICHHELL ALEXANDER JACQUE, JR. (1973-1992) COORDINATOR, EDUCATION MEDIA SERVICES
RICHARD E. JANIS (1967-2003) ASSISTANT PROFESSOR, ART
CHARLES E. JAQUITH (1975-1994) ASSOCIATE PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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RAYMOND F. JOHNSON (1967-2000) PROFESSOR, HEALTH PROMOTION & REHABILITATION
RONALD L. JOHNSTONE (1969-1992) DEAN, ARTS & SCIENCES
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JERALD E. LOUBURY (1968-1991) PROFESSOR, COMPUTER SCIENCE
NOLAN KAISER (1963-2004) PROFESSOR, PHILOSOPHY & RELIGION
CHRISTA KAMENETSKY (1963-1997) PROFESSOR, ENGLISH
MARCUS E. KANTZ (1970-1997) PROFESSOR, COUNSELING AND SPECIAL EDUCATION
EDWIN H. KAUFMAN (1972-2000) PROFESSOR, MATHEMATICS
MARJORIE L. KEENE (1965-1989) COORDINATOR, REGISTRAR'S OFFICE
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CHARLES L. KELLICUT (1972-1995) PROGRAMMER/ANALYST, COMPUTER SERVICES
JAMES P. KELSH (1983-2001) ASSISTANT PROFESSOR, COMPUTER SCIENCE
ROGER L. KESSELER (1991-2006) TRUSTEE, BOARD OF TRUSTEES
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SISTER MARIE A. KOPIN (1975-2000) CLINICAL SUPERVISOR, COMMUNICATION DISORDERS
DEAN THOMAS KREINER (1970-1997) PROFESSOR/BASEBALL COACH, PHYSICAL EDUCATION & SPORT
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RAY KYTLE, JR. (1969-1997) PROFESSOR, ENGLISH
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ERNEST LOUIS MINELLI (1955-1986) VICE PROVOST, PLANNING, INSTRUCTION & RESEARCH, PROVOST'S OFFICE
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CLAIRE LEE MOODIE (1971-1999) ASSOCIATE PROFESSOR, ENGLISH
WAYNE E. MOORE (1971-1986) PROFESSOR, GEOLOGY
RACHAEL E. MORENO (1986-1990) TRUSTEE, BOARD OF TRUSTEES
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HUGH MOTLAGH (1967-1998) ASSOCIATE PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
MAHMOUD A. MOURSI (1970-2001) PROFESSOR, MANAGEMENT
MISS MARION J. MULHOLLAND (1956-1987) PROFESSOR, ENGLISH
DOUGLAS W. NANCE (1968-2000) PROFESSOR, MATHEMATICS
ALBERT E. NEAL (1969-2001) ASSISTANT PROFESSOR, PSYCHOLOGY
JOHN G. NEE (1975-2001) PROFESSOR, ENGINEERING AND TECHNOLOGY
DONALD A. NELLERMOE (1975-1998) PROFESSOR, BUSINESS INFORMATION SYSTEMS
BURTON D. NELSON (1966-2006) ASSOCIATE PROFESSOR, GEOGRAPHY
DIANE ELMAY NEWBY (1991-2008) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
ROBERT NEWBY (1988-2007) PROFESSOR, SOCIOLOGY, ANTHROPOLOGY & SOCIAL WORK
SUZANNE NICHOLS (1969-1992) ASSOCIATE PROFESSOR, JOURNALISM
MARY C. NIMTZ (1976-2000) REGIONAL MANAGER, EXTENDED LEARNING
EARL ROBERT NITSCHKE (1960-1994) PROFESSOR, ART
JOHN P. NOVOSAD (1971-1993) ASSOCIATE PROFESSOR, ENGINEERING AND TECHNOLOGY
PAUL JOHN OBERLE (1965-1993) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
ROSE O'BRIEN (1965-1992) UNIT MANAGER II, CAREY DINING COMMONS, DINING SERVICES
MARY C. OBUCHOWSKI (1971-2005) PROFESSOR, ENGLISH
PETER A. OBUCHOWSKI (1969-2000) PROFESSOR, ENGLISH
WILLIAM CARL ODYKIRK (1983-1990) TRUSTEE, BOARD OF TRUSTEES
WAYNE H. OSBORN (1976-2007) PROFESSOR, PHYSICS
ALICE CATHERINE PAISLEY (1967-1992) COORDINATOR, ACCOUNTING SERVICES
ALBERT F. PALM (1970-1998) ASSOCIATE PROFESSOR, POLITICAL SCIENCE
ANTHONY PAPARELLA (1966-1992) ARCHITECT, ACADEMIC ADMINISTRATION
BRUCE M.C. PAPE (1968-2004) ASSISTANT PROFESSOR, GEOGRAPHY
RICHARD A. PARFITT (1962-1986) PROFESSOR, PHYSICAL EDUCATION & SPORT
ELLIOTT S. PARKER (1976-2007) PROFESSOR, JOURNALISM
IVAN PARKINS (1967-1982) PROFESSOR, POLITICAL SCIENCE
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QUENTIN PETERSEN (1973-1998) PROFESSOR, CHEMISTRY
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MICHAEL J. PETRICK (1978-2000) PROFESSOR, JOURNALISM
NANCY PIETRASZKIEWICZ (1982-2006) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
CHUCK PISONI (1996-2001) ASSOCIATE PROFESSOR, EDUCATIONAL LEADERSHIP
LOUISE A. PLACHTA (1979-2000) FIRST LADY EMERITUS, PRESIDENT'S OFFICE
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DENNIS A. POMPILIUS (1970-1997) COORDINATOR, INSTRUCTIONAL RESOURCES, INSTRUCTIONAL MATERIALS CENTER
ARLIE JOE POPE (1973-2001) PROFESSOR, HEALTH PROMOTION & REHABILITATION
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S. BENJAMIN PRASAD (1987-2001) PROFESSOR, MANAGEMENT & LAW
MARGE L. PRESTON (1976-2003) COORDINATOR, CAREER RESOURCE CENTER, CAREER SERVICES
MONROE S. PRICE (1985-2002) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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SUSAN M. RADEMACHER (1978-2008) STUDENT OMBUDSMAN/PRESIDENT'S OFFICE ASSISTANT, PRESIDENT'S OFFICE
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ROBERT E. RANKIN (1968-1998) PROFESSOR, PSYCHOLOGY
NORMAN RASULIS (1967-1997) ASSOCIATE PROFESSOR, ENGLISH
GARY L. RAYBURN (1983-2002) DIRECTOR, BUSINESS OPERATIONS, EXTENDED LEARNING
RONALD N. READ (1994-2006) MANAGER/SOUTHEAST REGION, MICHGAN SPECIAL OLYMPICS
LOIS REDMOND (1970-1992) PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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LARRY THOMAS REYNOLDS (1971-1998) PROFESSOR, SOCIOLOGY, ANTHROPOLOGY & SOCIAL WORK
HOWARD RICHARDSON (1963-1998) ASSOCIATE PROFESSOR, GEOGRAPHY
JOHN FREDERICK RIDDICK (1980-2004) PROFESSOR, LIBRARIES
JANIS M. VOEGE (1976-2002) PROFESSOR, HUMAN ENVIRONMENTAL STUDIES
JANET WAGESTER (1974-2001) EXECUTIVE ASSISTANT TO THE PRESIDENT, PRESIDENT'S OFFICE
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WILBUR J. WAGGONER (1956-1987) PROFESSOR, MATHEMATICS
J. B. WALDEN (1971-1989) PROFESSOR, INFORMATION SYSTEMS AND ANALYSIS, INFORMATION SYSTEMS
EDWARD J. WALSH (1975-1997) ASSISTANT PROFESSOR, LIBRARIES
KATHERINE L. WALSH (1976-2000) ASSISTANT PROFESSOR, TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT
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MARY R. WARWICK (1977-1990) PROFESSOR, MATHEMATICS
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JAMES ARTHUR WEBB (1972-1996) 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
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CAROL LEE WOJCIK (1989-2005) DIRECTOR, STUDENT DISABILITY SERVICES
JAMES J. WOODLEY (1977-2000) DIRECTOR, STUDENT PUBLICATIONS
MARGARET EILEEN WOLF (1949-1984) ASSOCIATE DIRECTOR, SCHOLARSHIPS & FINANCIAL AID
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DANIEL EVERET WUJEK (1968-2004) PROFESSOR, BIOLOGY
FORREST WYRICK (1977-2006) ASSISTANT MANAGER/FACILITIES TECHNICIAN, UNIVERSITY RECREATION
JOHN YANTIS (1968-1997) PROFESSOR, EDUCATIONAL LEADERSHIP
JOAN YEHL (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
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THADDEUS C. ZOLTY (1968-1998) PROFESSOR, POLITICAL SCIENCE
Marilyn Jean Zorn (1965-1989) PROFESSOR, ENGLISH
HABIB A. ZUBERI (1971-2000) PROFESSOR, ECONOMICS
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 access all policies, rules and decisions concerning their continued enrollment, and to the required course materials and facilities necessary to pursue their studies.

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 employed. 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. They are free to support causes by any orderly means which do not disrupt the operation of the University.

2.3 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 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 specifics 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.

2.4 Relationships 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.

2.5 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.

2.6 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.

3. Responsibilities of Students

3.1 General Regulations Concerning Student Conduct

3.1.1 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 disciplinary reviews on whether a decision of the Appeals Board suspends 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 Dean of the College of Graduate Studies. All misconduct of students, except that governed by the Dean of the College of Graduate Studies, is reported to the Dean of Students or to the persons designated by the Dean to receive such reports.

3.1.2 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).

3.2 Specific Regulations Concerning Student Conduct

3.2.1 Academic Dishonesty Concerning Student Conduct

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.otl.cmich.edu

3.2.2 False Information

A student shall not furnish, or attempt to furnish, false or misleading information to University officials or on official University records. Furthermore, a student 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.

3.2.3 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.

3.2.4 Disruptive Behavior During Class

A student shall not obstruct, disrupt or interfere, or attempt to disrupt 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.

3.2.5 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 activities which are occurring without the control of an individual, e.g., students, 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.

3.2.6 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.

3.2.7 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, including 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 consent is given without the physical or mental capacity to consent. Sexual contact under the influence of alcohol or drugs may be considered “without consent.”

3.2.8 Self-injurious Behavior/Attempted suicide

A student shall take no action, which threatens or endangers his or her own safety, health, or life, 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).

3.2.9 Property Damage

A student shall take no action which damages or tends to damage property not the student’s own.

3.2.10 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.

3.2.11 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.

3.2.12 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 violation of this section. Controlled substances are defined in the Controlled Substances Act of 1970, as amended.

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 Firearms/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 himself or herself 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 Misure 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.

3.2.28 Aiding/Abetting. A student implicated in the violation of any regulation in this document, whether he or she directly commits the 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.

3.2.29 Violation of Federal/State/Local Law. Violation of federal, state or local law in a manner which affects the University shall be treated as an offense under these regulations.

3.2.30 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 replacement, 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.

4.1.10 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 scheduled 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.

5.1.4 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, 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'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

5.1.7.1 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.

5.1.7.2 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

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5.2.1 University Hearing Officer

5.2.1.1 The University Hearing Body consists of one University Hearing Officer and two students.

5.2.1.2 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 University Hearing Body

5.2.2.1 The University Hearing Body will include the 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 fact 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 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.

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

5.3.1 Central Michigan University recognizes that complainants have rights which need to be protected as well as those of the person who is cited.

5.3.2 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

5.4.1 The following matters may be appealed to the Appeals Board:

5.4.1.1 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.

5.4.11.2 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 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.

5.4.7 The Conduct Proceedings Officer is responsible for notifying members of the Appeals Board of the appeal and for setting a time and place for holding a meeting of the Appeals Board. The Conduct Proceedings Officer will provide notice of time and place of the meeting of the Appeals Board to the student(s) charged, the charging party, and other University persons deemed appropriate by the Conduct Proceedings Officer.

5.4.8 The Conduct Proceedings Officer will assemble the documentary evidence introduced at the hearing, the record made of the hearing, and the administrative contact history made in connection with the matter and will make these materials available to the Appeals Board.

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 rehear 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:

5.4.11.1 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.

5.4.11.2 Order that a new hearing be held.

5.4.11.3 Change the sanction.

5.4.11.4 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.

5.4.12 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.

5.4.13 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 extends 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 review.

5.4.14 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.

5.6 Changes in Procedures

The procedures set forth herein shall apply throughout the calendar year. A University Hearing Officer may be appointed by the Provost to substitute its judgment for that of the Hearing Officer or Body. It is not the function of the Appeals Board to rehear 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:

5.6.1 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. Students 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.)
6.1 Intake Conduct Proceedings Officer

6.1.1 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.

6.1.2 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.

6.1.3 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.

6.1.4 The student may bring an advisor of the student’s choice to the discussion with the Conduct Proceedings Officer.

6.1.5 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.

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

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

6.2.1 A charge may be made to the Dean of the College of Graduate Studies Hearing Officer or the Graduate Studies Hearing Body. The student will be notified of the time and date of the hearing.

6.2.2 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.

6.2.3 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.

6.2.3.4 A Graduate Studies Hearing Officer presides at all hearings.

6.2.3.5 Procedures at hearings will be communicated to the student at least twenty-four (24) hours before the hearing.

6.2.3.6 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.

6.2.3.7 A copy of a decision by the Graduate Studies Hearing Officer or Graduate Studies Hearing Body will be handed 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

6.3.1 Central Michigan University recognizes that instructors have rights which need to be protected as well as those of the person who is cited.

6.3.2 The instructor has the right to have a person of his or her choice accompany him or her throughout the disciplinary hearing.

6.3.3 The instructor has the right to remain present during the entire proceeding.

6.3.4 The instructor has the right to make an “impact statement” and to suggest an appropriate sanction if the person cited is found in violation.

6.3.5 The instructor has the right to be informed in a timely manner of the outcome of the hearing regarding the findings and the sanction.

6.3.6 The instructor has the right to appeal either the findings or the sanction.

6.4 Appeals

6.4.1 The following matters may be appealed to the Graduate Studies Appeals Board:

6.4.1.1 The decision of a Graduate Studies Hearing Body or a Graduate Studies Hearing Officer as provided in Section 6.2.

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.

6.4.3 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.

6.4.4 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.

6.4.5 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 Graduate Studies Appeals Board.

6.4.6 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 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.

6.4.7 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 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.

6.4.9 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 decision for that of the Graduate Studies Hearing Officer or Graduate Studies Hearing Body.

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, any person bringing charges 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 furnish, 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 computer resources 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.

I. 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.

3. Sanctions for Violations of the Policy on Academic Integrity

In cases involving violations 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. 1, 2, 3

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 circumstances, 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 of the Policy on Academic Integrity 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 cited, 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 to the student 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 dean 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 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 rehear 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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