The purpose of this bulletin is to provide information about CMU’s academic programs available in the 2005-06 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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freshman, transfer, guest, special, dual/enrollment, international student, graduate, rematriculation, senior citizen
Welcome to Central Michigan University. You have joined more than 28,000 learners whose lives and opportunities are being enhanced as a result of their years spent with us. The university community wants to see all CMU graduates excel in a changing and diverse world, with skills in critical thinking, problem solving, and communication. CMU, with its emerging national recognition as a vigorous and innovative learning community of scholars, is dedicated to improving the quality of life in the region, the state, and beyond.

For more than 110 years, CMU's strong student-centered commitment to learning and teaching has kept it focused on instructional and curricular quality, first-class resources, opportunities for civic engagement, and service excellence.

The breadth and depth of CMU's academic and extracurricular programs and activities are impressive. The university offers more than 200 professionally focused undergraduate programs in business administration, communication, fine arts, health professions, humanities, social and behavioral sciences, natural sciences, engineering, teacher education, technology, and more.

CMU's faculty actively engages students in research and creative endeavors to catalyze students' initiative, intellectual responsibility, and thirst for discovery. Student volunteerism, internships, and cooperative learning experiences are hallmarks of a CMU education. Students at CMU actively pursue specific academic areas of interest on an increasingly diverse campus that fosters an appreciation for, and involvement in, international and global learning, including study abroad.

The personalized learning environment at CMU will prepare graduates for the working world, graduate study, or both. All of CMU's resources, faculty, and staff are centered on your success. Again, welcome to Central Michigan University - helping make the world a better place in which to live, one student at a time.

Sincerely,

Michael Rao, Ph.D.
President
Central Michigan University
## Board of Trustees

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<td>Gail Torreano</td>
<td>2010</td>
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*The year in parentheses indicates the date first employed by the university.*

## Administration 2005

**Michael Rao** (2000) *President of the University; B.A., University of South Florida; Ph.D., University of Florida*

**Thomas A. Storch** (2003) *Executive Vice President/Provost; B.A., Ohio Wesleyan University; M.S. and Ph.D., University of Michigan*

**Karen I. Adams** (2002) *Dean, College of Education and Human Services; Ed.D., University of South Carolina; M.Ed. and M.A., University of Virginia; B.A., University of Texas-Austin*

**Raymond L. Christie** (1998) *Interim Vice Provost/Academic Administration; B.A., Saginaw Valley State University; MBA, Central Michigan University; Ph.D., Georgia State University*

**Maureen N. Eke** (1995) *Associate Vice President/Diversity and International Education, Institutional Diversity; B.A., Ahmadu Bello University (Nigeria); M.A., Ph.D., Indiana University*

**James H. Hageman** (2000) *Vice Provost for Research and Dean, College of Graduate Studies; Intermediate B.S., University of Bristol; B.S., University of Illinois; Ph.D., University of California, Los Angeles*

**Robert E. Kohrman** (1968) *Dean, College of Science and Technology; B.S., University of Michigan; M.S., Miami University; Ph.D., Massachusetts Institute of Technology*

**Marvis J. Lary** (2002) *Dean, The Herbert H. and Grace A. Dow College of Health Professions; B.S., M.S., Wichita State University; Ph.D., Kansas State University*

**Michael A. Leto** (1998) *Vice President for Development and Alumni Relations; B.A., Ball State University*

**Sue Ann Martin** (1997) *Dean, College of Communication and Fine Arts; A.B., M.A., Ph.D., Wayne 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*

**D. Terry Rawls** (1991) *Interim Vice President/Executive Director, ProfEd (Off-campus Programs); B.S., University of Iowa; M.Ed., Georgia State University; Ed.D., Idaho State University*

**Roger Rehm** (1975) *Interim Chief Technology Officer; BM, MM, Cleveland Institute of Music*

**Catherine Ann Riordan** (2000) *Vice Provost/Academic Affairs; B.S., Eastern Michigan University; Ph.D., State University of New York at Albany*

**Bruce K. Roscoe** (1980) *Dean of Students; B.S.H.E., Ph.D., University of North Carolina at Greensboro*

**George E. Ross** (2002) *Vice President for Finance and Administrative Services; B.A. and MBA, Michigan State University; Ph.D., University of Alabama*

**E. Gary Shapiro** (1978) *Dean, College of Humanities and Social and Behavioral Sciences; A.B., Wayne State University; A.M., Ph.D., University of Michigan*

**Daniel Vetter** (1988) *Interim Dean, College of Business Administration, and Professor, Finance and Law; B.S., Ithaca College; B.A., Dakota Wesleyan University; MBA, University of South Dakota; Ph.D., University of Nebraska at Lincoln*

**Kathleen M. Wilbur** (2002) *Vice President for Government Relations and Public Affairs; B.A., Michigan State University*
### University Calendar

(Tentative)

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<th>Classes End</th>
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<th>Phase II Registration-Drop/Add</th>
<th>Classes Begin</th>
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<td>2007</td>
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<th>Year</th>
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<th>Phase II Registration - Adds only</th>
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<th>Thanksgiving Recess</th>
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<th>Phase II Registration - Adds only</th>
<th>Martin Luther King Jr. Day (no classes)</th>
<th>Spring Recess</th>
<th>1:00 p.m. Sat - 7:30 a.m. Mon.</th>
<th>No Classes</th>
<th>Classes End</th>
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<td>May 1-5</td>
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5:00 p.m. Wed - 7:30 a.m. Mon.

Classes End

Examination Week

Semester Ends

Commencement
Central Michigan University is in its second century as an institution of higher learning steeped in tradition and guided by its mission to make this campus a stimulating setting where its students can learn and grow.

A Brief History

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, deeply conscious of the poorly prepared teacher applicants seeking positions in Mt. 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 Mt. Pleasant. Most students at the time were eighth grade graduates, attending the “Normal” for a few weeks or months prior to beginning their own careers as teachers.

Within the first two years, land was acquired following the sale of bonds, 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 had also been 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, and in 1927, the Bachelor of Science. Central’s first graduate courses, supervised by the University of Michigan, were offered in 1938.

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 constructed on the land south of Preston Road more than doubled 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 in 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 also during this time that the university began to recruit a national faculty representing a diversity of geographic and institutional backgrounds and areas of expertise. The standards set for teaching credentials and research capabilities 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 -
CMU Today

Shaping the future

Central Michigan University is a nationally distinguished institution of higher education that enrolls close to 28,000 students and offers more than 200 programs at the bachelor's, master's, specialist's, and doctoral levels.

CMU's Mount Pleasant campus is home to 19,792 students, including a freshman class with a cumulative 3.28 grade point average. CMU operates one of the largest off-campus programs in North America, educating more than 8,000 students at 60 locations in Michigan and beyond. CMU ranks among the top universities in the nation in the number of graduate degrees awarded to African Americans and Hispanics.

The Carnegie Foundation for the Advancement of Teaching recognizes CMU as a doctoral/research-intensive university that offers a wide range of baccalaureate and graduate programs and supports significant faculty and student research, scholarship, and creative work. The university's dedicated faculty members directly involve students in real-world learning, performance, and career preparation.

The quality and variety of CMU's academic and extracurricular activities reflect the university's responsiveness to the educational, social, and ethical needs of its students and the society they will serve upon graduation. Many of the university's academic programs emphasize an interdisciplinary approach to learning that provides students with broad experiences and career flexibility.

CMU offers 29 degrees through seven academic colleges:
- College of Business Administration
- College of Communication and Fine Arts
- College of Education and Human Services
- College of Graduate Studies
- College of Humanities and Social and Behavioral Sciences
- College of Science and Technology
- The Herbert H. And Grace A. Dow College of Health Professions

Dedicated faculty provide opportunities for active learning

At the heart of CMU's success is its outstanding faculty. CMU professors bring to the classroom an enthusiasm inspired by significant research, scholarship, and artistic work.

CMU students prepare for careers through applied learning and career experiences. Among respondents to the annual Career Services survey of graduates, 92 percent said they completed internships and cooperative work experiences. Nearly 84 percent of students reported they found jobs in their fields or were accepted into graduate or professional programs.

Many CMU students also become involved through leadership training, community service, international study, and membership in more than 200 on-campus professional clubs and student organizations.

Programs and partnerships in emerging fields

CMU's commitment to educate students for success in a competitive and evolving job market includes progressively developing and fine-tuning interdisciplinary and niche-area programs. The university recently added new programs in mechanical and electrical engineering. At the doctoral level, CMU has offerings that include health administration and programs in educational administration and audiology that are delivered through distance learning.

CMU's innovative educational and research initiatives provide students with real-world career experiences and opportunities to help serve emerging needs in society. A few of many examples:
- The Center for Applied Research and Technology provides an environment for students to work alongside researchers and prospective employers on groundbreaking biotechnology research.
- The SAP University Alliance trains business students in the most sophisticated business software in the world.
- The Michigan Water Research Center involves biology students in assisting public and private organizations with advanced laboratory and water research services.
- The new John G. Kulhavi Professorship in Neuroscience provides psychology students exceptional research opportunities in the new Health Professions Building Brain Research and Integrative Neuroscience Center.
- The LaBelle Entrepreneurial Center involves students enrolled in CMU's nationally ranked entrepreneurship program with real-world business consultation experiences.

Diversity opportunities

CMU's programs prepare students for full participation in a changing democratic society and for careers in an increasingly global marketplace. The Office of International Education offers strong and expanding international programs, and many on-campus offices and groups support a diversity of ethnic and cultural events and displays.

New support for research, scholarships, facilities

The $50 million New Vision of Excellence Campaign for Central Michigan University is a broadly focused initiative to raise academic standards, strengthen discovery and creative activity among faculty and students, and enhance learning environment facilities and technology. To achieve this New Vision of Excellence, CMU is reaching out to its many friends, partners, and 160,000 alumni around the world for private funding support for student scholarships, faculty and program endowment, an enhanced campus environment, and ongoing and special programs.

With increasing funding support, CMU offers many scholarship programs for top achievers and students with potential in areas of multicultural advancement and leadership. Two scholarships - the Centrais Scholar Award and the Multicultural Advancement Award of Distinction - cover most of the cost of tuition, room, board, fees, and general expenses. CMU also awards $1,500 scholarships to all high school seniors with both grade point averages of 3.5 and ACT scores of 20 or higher. Top international and Midwestern students qualify for in-state tuition rates.

CMU offers students exceptional facilities in which to learn. Recently completed projects include:
- Health Professions Building. The new health professions building unites CMU's reputable health care programs in one technologically advanced environment that is conducive to learning, treatment, collaboration, and discovery.
- Charles V. Park Library. Central Michigan University's library is a highly technological information center with more than 1 million volumes and 400 public computer workstations. The Clarke Historical Library, located along the main corridor of the library, contains many of Michigan's prized historical holdings.
- Residence halls. Three new residence halls - Campbell, Kesseler, and Kulhavi - provide 714 students with apartment-style living.
Central Michigan University
Mission Statements

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-intensive public 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.

(continued)
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

Institutional Priorities

Central Michigan University has identified a series of strategic and immediate directions, which will focus the university’s energies between 2005 and 2010. These institutional priorities are:

- Create an environment that supports teaching and learning as the top priority.
- Provide educational experiences and programs that enhance diversity and global perspectives.
- Enhance the infrastructure for research and creative activity.
- Provide service for the public good.
- Strengthen the institution’s culture of integrity.

Adopted by the Board of Trustees, 3-3-05

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 CMUs 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 Allied Health Education Programs (CAAEHP), 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), and National Association of School Psychologists (NASP).

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 College of Education and Human Services at Central Michigan University 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://www.provost.cmich.edu/viceprovost/Accreditation/accreditation.htm.
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 the Americans with Disabilities Act, Title VII of the 1964 Civil Rights Act, Title IX, Executive Order 11246 and other relevant state and federal statutes.

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

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

For more information, contact the Affirmative Action Office, 104 Powers Hall, Central Michigan University, Mt. Pleasant, MI 48859, 989-774-3253, http://www.cmich.edu/aaeo/.

Living on Campus

The campus and buildings of Central Michigan University provide a physical environment for learning that is attractive, orderly, and convenient. Campus beauty is cultivated because the quality of the physical surroundings affects the quality of learning. The academic buildings form the core of the campus, with ready access to services. Campus residence halls and apartments are located conveniently with respect to classroom buildings, the library, and recreational facilities.

The outdoor campus setting features trees and lawns, ponds, walkways, and natural conservation areas.

Automobile traffic is routed toward the campus perimeter, where parking areas are located. Bicycle pathways link major campus buildings, and bicycle racks are provided.

The resources provided by libraries, art galleries, studios, auditoriums, parks, theatres, gyms, and playing fields are easily available within the campus boundaries.

Valuable additions to the university’s outdoor teaching facilities exist in the form of nearby Cathedral Woods, the Neithercut Woodland, and the teaching facility on Beaver Island.

The Campus

Central Michigan University is located at the southern boundary of Mount Pleasant, a growing city of over 25,000, accessible from highways US-27 and M-20. The university’s enrollment includes students from every county in Michigan and from other states and countries, representing both rural and metropolitan areas.

Campus Tours

Visits to Mt. Pleasant and the CMU community are welcomed. Campus tours are provided weekdays and many Saturdays through the Admissions Office, Warriner Hall, (989) 774-3076 or toll free, 1-888-292-5366. Parking information and guest passes are available by contacting the Undergraduate Admissions office in advance of your visit.
Academic Overview

Colleges of the University

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

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

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

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

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, available from the College of Graduate Studies (or on the web at https://bulletins.cmich.edu/).

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.

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

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

College of Graduate Studies
See the 2005 - 2006 Graduate Bulletin
(https://bulletins.cmich.edu/)

Off Campus Programs
See the 2005 - 2006 Off Campus Programs Bulletin
(http://www.cel.cmich.edu/celbulletin/)
Office of the Dean of Students

Bruce Roscoe
Dean of Students
214 Bovee University Center
774-3346
http://www.cmich.edu/dean-of-students

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

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

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

The Office of the Dean of Students enhances the interaction, cooperation and collaboration of student service units with the academic deans and departments. Staff members are responsive to students' academic and non-academic needs and seek to promote integration of students' curricular and cocurricular experiences. The office enables the university to focus on fostering students' intellectual, professional and social development.
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. Over 150 fields of study are available.
- **Affordability.** 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.

These are probably a few of the reasons why you are planning to attend Central Michigan University.

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 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.

<table>
<thead>
<tr>
<th>Recommended high school background:</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
</tr>
<tr>
<td>Fine and Performing Arts</td>
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<tr>
<td>Foreign Language</td>
</tr>
<tr>
<td>Mathematics</td>
</tr>
<tr>
<td>Biological and Physical Science</td>
</tr>
<tr>
<td>History and Social Science</td>
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<tr>
<td>Computer Literacy</td>
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</tbody>
</table>

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 made 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 beginning 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 http://www.oie.cmich.edu/prostudents/eli.asp. 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.

- Complete the application and give it to your high school counselor.
- 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 well in advance and 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, online at http://www.cmich.edu/applications/. Be sure to include the $35.00 application fee.

Have an official transcript from each college you have attended sent directly from each college to the CMU Admissions Office.

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

Transfer of Credit

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

Transfer Credit Evaluation

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

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

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

International Students

See "International Student Admission to CMU" in this Bulletin on page 16 for further information.

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 this 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 you wish. There will be career information, tours of campus, and special activities to acquaint you with us.

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 http://www.cmich.edu/applications.

If you wish to register as a guest in more than one semester or session, you should request registration information from the Office of the Registrar.

Non-Degree Special Admission

Admission Requirements

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

When to Apply

If you are considering non-degree special admission, you should apply well in advance and at least two weeks prior to the start of classes.

How to Apply

The regular application form available in each Michigan high school or the CMU Admissions Office may be used for non-degree special admission. Students should check non-degree status on the application.

Dual High School Enrollment

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

Admission Requirements

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

When to Apply

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

How to Apply

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

Returning Undergraduate Students

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

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. Students interested in admission to the English Language Institute should complete the English Language Institute Application. Both applications should be returned to the Office of International Education for processing at least 3 months prior to the intended semester of enrollment. 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 US bank).
2. Submit official transcripts from all secondary and post-secondary institutions attended with English translations, if necessary.
3. Proof of English language competency must be included. An official TOEFL score is required of all non-native speakers of English. A TOEFL score of paper-based testing (PBT) 550 or 213 computer-based testing (CBT) is required to be considered for regular admission. A TOEFL score between 500 and 549 (PBT) or 173 and 210 (CBT) may allow a student to be admitted; however, the student will be required to take an English placement test upon arrival at the university. The test results will be used to determine which intensive English courses the student will need to take in addition to their academic courses. The restrictions will be removed when the student demonstrates satisfactory performance in English, as determined by the English Language Institute policies. An applicant with a TOEFL score below 500 (PBT) or 173 (CBT) is only eligible for admission to the English Language Institute (see below).
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.

English Language Institute (ELI) Admission

1. Complete and submit an English Language Institute 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 will be required. After demonstrating English proficiency, as determined by the ELI policies, if department and university admission requirements are satisfied, these students may be granted admission to the program of their choice.

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 page 62).

Graduate Admission

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

Rematriculation

A student whose eligibility to enroll (matriculation) has been canceled for academic reasons may apply for rematriculation to the Committee on Rematriculation, in care of the Director of Academic Assistance Programs. 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 Assistance Programs 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 Services 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.

Senior Citizen Program

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

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 several 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 your most general university questions answered as well as the most detailed. Students attending transfer orientation will:

- Register for first semester class schedules 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 $125.00 new student orientation fee and request an orientation date that fits your schedule.
Career Services

The primary goals of Career Services are to assist individuals in recognizing career development as a life-long 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 this Career Success Plan, 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.

Career Resources. Central Michigan University provides its students with one of the finest collections of career resources in the state. New materials and services are continually added to our collection to keep it as current as possible. Career Services offers job seekers many sources of current state and nationwide job vacancies. DISCOVER—a career assessment tool that includes occupational guidance and graduate school information—is available at no charge for those exploring career and major options.

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 non-verbal 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 to access the on-campus interviewing program, internships, the employer referral program, and a subscription to the employment vacancy bulletin up to 6 months after graduation.

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 (Quik List) is available on our website (www.careers.cmich.edu), in our Grawn Satellite office and in Career Services Resource Center.

For more information contact Career Services, 215 Bovee University Center, 774-3068, or visit us online at www.careers.cmich.edu.

Planning Your Academic Career

Beginning Your Studies

Making Choices as a Student

You have many academic decisions to make. You will choose a major and possibly a minor, and enroll for courses which lead toward a desired degree or certificate. Students enrolled on the Mt. Pleasant campus will be required to complete an authorization for a major or sign a statement of intent to major by the time they earn 56 hours of credit. Some students have already made these choices when they begin their university studies, but most appreciate the opportunity that CMU offers to sample many areas of study through the University Program portion of the General Education Requirements. The University Program is required of all students and is explained later in this Bulletin. While taking University Program classes, you are preparing yourself to make career and life choices from a broadened perspective, as well as 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 205) 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.

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, of course, 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 of time to complete their programs. There may also be special requirements for certain degrees and major and minor programs. These requirements may
Progress Toward Your Degree

The rate at which you move toward 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>

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

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

No undergraduate student will be permitted to be enrolled in more than 21 credits per semester. Exceptions may be granted with approval of the dean or his/her designee.

First Year (Freshman): (0-25 cr. hrs.)

Meet with your General Academic Advisor during your first semester to clarify requirements on the University Program, competency, or any other questions you have encountered since academic orientation. Review your Bulletin carefully.

If you are undecided about a major, minor, and degree:

At CMU, several advising services, classes, and self-assessment instruments are available to assist you in your academic and career decision making. Some suggestions include:

- Talk to CMU advisors in academic departments, Academic Advising and Assistance, Career Services, or the Counseling Center regarding academic programs that interest you.
- Consider taking CED 101 (1) Careers and Self Exploration.
- 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: Discover Program, Michigan Occupational Information System, Strong Interest Inventory.

If you are interested in business:

Stop by Grawn 105, Business Student Services, to pick up the information packet on the College of Business Administration or 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 (see Bulletin index online at http://www.provost.cmich.edu/viceprovost/forms/program1.asp).

If you are interested in teaching:

Visit the EHS Center for Student Services, Ronan Hall 204, to learn more about teacher education programs and schedule a meeting with a teacher education academic advisor.

Second Year (Sophomore): (26-55 cr. hrs.)

Continue your search for a major and/or minor.

If you have decided on your major and/or minor, consult with the appropriate departmental advisor(s) to authorize the major/minor and define requirements for graduation.

Continue coursework on the University Program, competency, and major/minor. Ideally, competency requirements should be completed by the end of this year. Review your progress on completion of the University Program and competency requirements with your general academic advisor. Search for a study abroad or an internship opportunity by contacting CMU’s Office of International Education or an internship coordinator in the Career Services office. Your academic department of choice may also have advice for you.

Teaching:

- Complete admission for Teacher Education.
- Complete Cycle I of candidacy requirements (see page 78 of this Bulletin).
- Authorize your major and/or minor in the appropriate department(s) if you have not done so.

Business:

- Follow the procedure for admission to the College of Business Administration outlined in this Bulletin (see page 137).
- Visit with the College of Business Administration advisor in Grawn 205, 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, 774-3504. An Assistant Director will review your individual course of study and determine remaining graduation requirements. Register with Career Services.

Teaching:

- If you have completed Cycle I, and if you plan to student teach during the following fall semester, apply for student teaching in January (see page 78 of this Bulletin).

Business:

- Complete application process to the College of Business Administration for admission to Professional Business Studies.
- Following admission to Professional Business Studies, contact the appropriate department office for the assignment of an advisor.
Fourth Year (Senior): (86-124 cr. hrs.)

Once you have earned 86 credit hours, apply for graduation at the Undergraduate Academic Services Office, Warriner 123, 774-3504 (see page 76 of this Bulletin). A graduation fee is required. Questions about graduation requirements should be referred to this office.

Complete graduation requirements as indicated on your Graduation Audit. Develop skills for your job search at Career Services. Skill development workshops and information are available regarding job search techniques, interviewing skills, and portfolio development.

If you are interested in attending graduate school, you should talk to faculty members in the field you would like to pursue. They will have information on how to go about selecting, applying to, and preparing for graduate school.

Special Notes for Transfer Students:

During your first semester, check with the Office of the Registrar 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.
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, 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 OASIS, through the fifth day of classes, and students may add a course, using OASIS, during the sixth and seventh day of classes. Students may add a course during the eighth and ninth day of classes only by Course Correction (Bump) card with the appropriate signatures. This is for Fall and Spring Semesters. Summer add/drop policies are not affected. 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 shall notify the instructor of this action. 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, Theses

Students registering for internships, practica, independent studies, 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.
Financial Information

Tuition and Fees

All fees including tuition are subject to possible change. See http://www.registrars.cmich.edu/registration/tuitionfeesched.htm for possible changes.

<table>
<thead>
<tr>
<th>Tuition Rates for</th>
<th>On-Campus Credit Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Courses</td>
<td>Rates Per Credit Hour</td>
</tr>
<tr>
<td></td>
<td>Michigan Residents</td>
</tr>
<tr>
<td></td>
<td>Non-Michigan Residents</td>
</tr>
<tr>
<td>Courses numbered 000-499</td>
<td>$153.65</td>
</tr>
<tr>
<td>Courses numbered 500-599</td>
<td>$153.65</td>
</tr>
<tr>
<td>Undergraduate students:</td>
<td>$205.65</td>
</tr>
<tr>
<td>Students admitted to the College of Graduate Studies:</td>
<td>$205.65</td>
</tr>
<tr>
<td>Courses numbered 600-999</td>
<td>$222.40</td>
</tr>
</tbody>
</table>

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.

Enrollment Fee

All students who have been admitted to Central Michigan University are charged a nonrefundable Enrollment fee for each semester or session. Students completing registration for 1-6 semester hours will pay a $40.00 Enrollment Fee while students registering for seven or more credit hours will pay $80.00. The summer enrollment fee is $40 per session.

Student Activity Center (SAC) Fee

Students enrolled in seven or more hours will be assessed a $50.00 Student Activity Center fee for each of the fall and spring semesters. Students taking less than seven hours can pay an optional $50 per semester fee. Students are not assessed a summer fee if the SAC fee is paid both fall and spring semesters. Summer fee is $25 per six week session.

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.

New Student Orientation Fee

A $125.00 New Student Orientation Fee is assessed to all newly-admitted undergraduate students for new student advisement and orientation.

Campus Programming Fee

Students enrolled in seven or more hours will be assessed a $25.00 Student Organization Fee for each of the fall and spring semesters.

Student Publication Fee

During the Fall and/or Spring semesters, all students pay a $5.00 student publication fee. Students may obtain a refund of this fee by applying to the Student Publications Office, Anspach 008, within a 10-day refund period as listed in the Class Schedule.

Campus Improvement Fee

During the Fall and Spring semesters all students pay a $37.50 Campus Improvement Fee. This fee will be billed with tuition.

Library Fee

During the fall and spring semesters, all students pay a $75.00 library fee.

Technology Fee

Students enrolled in seven or more hours will be assessed a $110.00 technology fee each of the fall and spring semesters, while students enrolled in six or less hours will be assessed a $55.00 technology fee. The summer technology fee will be $55.00 per 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.

Delinquent Account Policy

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

Family Educational Rights and Privacy Act

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

Approximate Undergraduate 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 and Fees¹</td>
<td>$4,747.00</td>
<td>11,115.00</td>
</tr>
<tr>
<td>Room and Board²</td>
<td>5,524.00</td>
<td>5,524.00</td>
</tr>
<tr>
<td>Books and Supplies</td>
<td>750.00</td>
<td>750.00</td>
</tr>
<tr>
<td>Personal</td>
<td>1,110.00</td>
<td>1,110.00</td>
</tr>
<tr>
<td>Travel</td>
<td>500.00</td>
<td>500.00</td>
</tr>
<tr>
<td>Loan Fees</td>
<td>130.00</td>
<td>130.00</td>
</tr>
<tr>
<td>Total</td>
<td>$12,631.00</td>
<td>18,999.00</td>
</tr>
</tbody>
</table>

¹Based on 30 credits including $160 enrollment fee, $100 SAC fee, $220 Technology fee, $75 capital improvement fee, $50 campus programming fee, $150 library fee.

²$100 of this amount is for a registration and processing fee and for energy conservation project.
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 Article II.3., below, and,
   b. demonstrates by clear and convincing evidence that the student has established Michigan as his or her domicile and intends to make Michigan the student’s permanent home, each independent of the student’s attendance at CMU.

B. Non-Resident Status:

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

C. Physical Presence in Michigan:

1. Generally, an individual must document one year of continual physical presence in the state as one of the criteria for determining eligibility for resident status. The year to be documented will be one year immediately preceding the first day of classes of the term in question. The year of continuous presence is never the only criterion used for determining resident eligibility and, in itself, will not qualify a student for resident status.
2. If the one year resident requirement is fulfilled while a student is enrolled in this University or another institution of higher education, it is presumed that this student has not established domicile in the State of Michigan. However, if substantial information exists (see below for other factors) which clearly demonstrates the establishment of a Michigan domicile, the individual may be immediately eligible for resident status prior to the passage of one year.

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

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

1. A person appointed to a regular full-time position at the University (and that individual’s spouse 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 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 to a person who is classified as a Michigan resident for tuition purposes will be classified as a Michigan resident for tuition purposes.
5. A student who has a parent who was graduated from CMU will be classified as a Michigan resident for tuition purposes.
6. 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 aid.
   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.
Financial Information

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.
Financial Information

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 in the Residence Hall Community Living Guide. The cost of the room and 19-meal plan for the academic year 2004-2005 ranged from $6,160 to $7,084.

Apartments. Various contracts are available depending on the individual unit and number of bedrooms. The approximate monthly rate for students in 2004-2005 ranged from $514 to $593.

Housing Application and Penalty Fees

- Housing Application Fee - University Apartments: $50.00
- Meal Plan Changes (Assessed to cover costs): $15.00
- Housing Contract Breakage - Contract breakage fees for cancellation of Housing Agreement will be assessed according to the Housing section of this Bulletin. (See Refunds section.)
- Lost Key Fee and Lock Change Fee
  - University Apartments: $33.00
  - Residence Halls: $40.00

Special Fees

Application Fees

A. Undergraduate
   $25.00 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. Contact the Campus ID Office for additional information at 989-774-3484.

Transfer of Photo 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
   Application for graduation fee is $35.00.

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

Health Service Fees

Fees vary depending on services provided. Contact Health Services at (989) 774-3059 regarding charges for specific services. Payment is not required on the date of service. Courtesy billing to the student’s primary health insurance plan is provided.

Library Fees

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

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

Special Course Fees

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

Other Course Fees

- Off-Campus Classes. For information regarding fees for Extended Degree Programs and Credit Courses, contact CEL, (989) 774-3868.
- 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; Industrial and Engineering Technology, and Journalism will be charged for the cost of those materials.
- Flight Training. Students enrolled in flight training courses will be charged for aircraft and instructor time at rates established by the flight school.
- Competency Test Fee - General Education Program. A schedule showing the fee for each test which may be used to meet the competency requirements for the General Education Program is maintained in the Center for Learning Assessment Services at http://www.cmich.edu/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

Commuter 175.00 / year
Resident 150.00 / year

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 an $8.00 charge for priority (same day) service. Transcripts are available upon written, hand-signed request of the student. Official transcripts of students with financial obligations to the university are not released until the obligation is paid.

Diploma Replacement Charge

$20.00

Returned Check Fee

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

Any amount owed to the university should be paid when due. A late charge of $20.00 per month will be assessed to past due accounts if the balance is $40.00 or larger. The maximum late charge assessed to an account is $120.00 or up to one half of the balance remaining outstanding. Any student who withdraws from the university or who has a financial debt is responsible for paying any outstanding financial obligations, and will have a hold placed on official transcripts and future registrations. Graduating students with financial obligations may also have a hold placed on their diplomas.

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

Refunds

All potential refunds are applied to university obligations before a refund is made to an individual. Refunds of less than $2.01 will not be made unless the student requests it from the Receivable Accounting Office, but will be carried forward to offset future university charges. Where applicable, all refunds will be mailed directly to the student.

Refunds for Student-Initiated Complete Withdrawals

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

Refunds for Students Receiving Financial Aid

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

Refunds for students who receive Title IV financial aid are allocated to the financial aid source in the following order:

- to outstanding balances on Federal Direct Loans (Unsubsidized and Subsidized)
- to outstanding balances on Federal Perkins Loans
- to outstanding balance on Federal Plus Loans
- to Federal Pell Grant awards
- to Federal SEOG awards
- to 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 refund due will be applied to any outstanding university obligations before a refund check is issued. No refunds are made for class withdrawals after the Phase II registration period (except for some special fees) unless the student is completely withdrawing from the university.

New Student Orientation Fee Refunds

The $125.00 New Student Orientation Fee is refundable by submitting a written request to the Admissions Office for students who cancel their admission prior to the established deadline dates as indicated in admission correspondence for the specific semester or session, and who have not attended an orientation session.

Tuition Refunds

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

<table>
<thead>
<tr>
<th>Percentage of Tuition and Fee Refund for Fall/Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Session</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>5 WK Days</td>
</tr>
<tr>
<td>Refund</td>
</tr>
<tr>
<td>8 WK Days</td>
</tr>
<tr>
<td>Refund</td>
</tr>
<tr>
<td>10 WK Days</td>
</tr>
<tr>
<td>Refund</td>
</tr>
<tr>
<td>16 WK Days</td>
</tr>
<tr>
<td>Refund</td>
</tr>
</tbody>
</table>

Off Campus Programs Refunds

Application fees, on-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 midpoint of the course shall be refunded in proportion to the calendar time remaining in the course, less a $25 drop course fee. Courses dropped after the midpoint of the course shall be assessed a $25 drop course fee and not tuition refund.

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 sent 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 in the student's regional office. A major consideration in such cases will be the timeliness of the request.

Students withdrawing from a distance learning course will be expected to submit a request for withdrawal in writing.
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:

1. Cancellation of the agreement after May 20 but prior to the first day halls open in the fall must be in writing and will result in a $300 charge (For spring semester, cancellation of the agreement after Nov. 20 but prior to the first day halls open in the spring must be in writing and will result in a $300 charge.) New Applicants only.

2. Returning student only have seven (7) days to cancel their housing agreement without penalty, prior to the first day of classes.

3. Cancellation of this agreement from the first day halls open in the fall but prior to Nov. 1 shall result in a $900 charge.

4. Cancellation of this agreement after Nov. 1 but prior to the end of the fall semester shall result in a $600 charge.

5. Cancellation of this agreement from the end of the fall semester but before April 1 shall result in a $300 charge.

6. Cancellation of this agreement after April 1 shall result in a $100 charge.

7. Other charges and damages may apply under the provisions of the agreement such as damage to room.

If a student is not approved for release from his/her residence hall agreement and chooses to move anyway, he/she is 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.

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.
Financial Aid

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 seventy 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.

Office of Scholarships and Financial Aid
Central Michigan University
202 Warriner Hall
Mount Pleasant, MI 48859
(989) 774-3674
1-888-392-0007
FAX: (989) 774-3634
E-MAIL: CMUOSFA@CMICH.EDU

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 Pell Grants and/or Federal Direct Loans) in a degree program.

NOTE: In order to graduate within four years on a degree program which requires a minimum of 124 hours of credit, a student must average at least 31 hours of credit each year. Several degrees may require a minimum greater than 124 hours.
4. Federal aid recipients may not owe a refund from any federal grant or loan or be in default on any federal loan.
5. Students must be enrolled on campus to receive financial aid, except under special circumstances. Students must notify Off-Campus Programs at the time of registering for correspondence or other off-campus courses if they wish those courses to count for current financial aid eligibility or future enrollment certification or other purposes including but not limited to student loan deferments, etc. Further, these courses must be taken in conjunction with the university semester calendar, including registration, beginning and ending dates.
6. Students registered at other institutions are not eligible to receive CMU financial assistance.
7. Guest students attending CMU are not eligible to receive financial assistance through CMU. Students should check with their home institution to determine eligibility for financial assistance.

Financial Aid Policy on Satisfactory Academic Progress

8. CMU students must make satisfactory progress toward completion of their degrees at CMU to be eligible to receive aid from the following programs: Federal Pell Grant, Federal Direct Student Loan, Federal Direct PLUS Loans (parent loan), Federal Supplemental Educational Opportunity Grant, Michigan Educational Opportunity Grant, Federal Work Study, Michigan Work Study, Federal Perkins Loan, Michigan Competitive Scholarship Program, CMU Grant, Bureau of Indian Affairs Grant, Adult Part-time Grant, and CMU Board of Trustees and endowed scholarships. Grade point average, semester and cumulative credits earned, and a maximum time frame are all elements of the satisfactory progress determination. Requirements vary depending upon class level and attendance status as outlined on the accompanying table.

8-1. Transfer Students
Transfer students will be reviewed within the maximum time frame, based on the number of credits accepted by CMU.

8-2. Other Considerations

Repeated courses will count toward determination of enrollment status. However, for purposes of financial aid Satisfactory Academic Progress, only credits adding to the cumulative credits earned will be counted toward the required minimum number of credits per year. Repeat courses for which a student previously received a passing grade will not count.

Courses with grades of I (Incomplete) or Z (Deferred) do not count as credit earned nor affect the GPA in the semester in which the course is taken; however, they are counted once they are completed. Based upon a student initiated appeal, and a mitigating circumstance, incomplete courses may be considered.

Withdrawn courses do not count as credit nor affect the GPA.

Courses numbered below 100 will count toward determination of enrollment status and minimum credit hours earned per year for purposes of determining financial aid Satisfactory Academic Progress.

Undergraduate courses taken by graduate students do not normally count as graduate credit earned or affect the GPA. Undergraduate credits registered for will not count toward determination of enrollment status and will not count toward the required minimum credits earned per year for purposes of Satisfactory Academic Progress, unless the credits are determined to be a required prerequisite.

8-3. Summer School Attendance
Summer school attendance may be used by the student to raise the GPA or remove a credits-earned deficiency under the appropriate probation or suspension status. Upon appeal from the student, his/her status will be reviewed under the mitigating circumstances provision to determine if a status change will be granted.

8-4. Financial Aid Probation
A student who fails to earn the minimum number of credits or achieve the GPA required by his/her attendance status, e.g., full-time, will be placed on Financial Aid Probation. To be removed from Financial Aid Probation, the student must complete his/her next semester at CMU in the same full, half or part-time status he/she was in when placed on probation and the student must complete one-half of the minimum number of credits required under the academic year new credits earned policy and achieve the cumulative grade point average required. While on Financial Aid Probation, students may still receive financial aid. Failure to earn the required credits or achieve the required GPA will result in Financial Aid Suspension.
Satisfactory Progress Toward Degree

<table>
<thead>
<tr>
<th>Cumulative GPA Required</th>
<th>Academic Year New Credit Hours Earned</th>
<th>Maximum Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time *</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Half-Time *</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Less than Half *</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Graduate: Masters or Specialist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time 3.0</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Half-Time 3.0</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Less than Half 3.0</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Graduate: Doctoral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-Time 3.0</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Part-Time 3.0</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Less than Half 3.0</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

*The minimum cumulative GPA required for undergraduates is identical to that listed in the University Academic/Probation Policy (see index). A student on University Academic Probation is considered to be making financial aid Satisfactory Progress as long as the number of new credit hours earned meets the minimum requirement.

8-5. Financial Aid Suspension

A student who is on Financial Aid Suspension is not eligible to receive aid from financial aid programs listed in this section. To be removed from Financial Aid Suspension, the student must complete his/her next semester at CMU in the same full, half or part-time status he/she was in when placed on probation and the student must complete the minimum number of credits required and achieve the cumulative grade point average required. The semester must be completed without the receipt of financial aid.

8-6. Mitigating Circumstances

Mitigating circumstances may cause a student to fail to achieve Satisfactory Academic Progress. The student must submit a written appeal, with appropriate documentation attached, to the OSFA. The student will be notified of the outcome.

8-7. Right to Appeal

Any student who is placed on Financial Aid Probation or Suspension may appeal this decision.

Applying For Financial Aid

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

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

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

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

Verification

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

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

Fraud

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

Determination of Financial Need

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

The expected family contribution for education expenses for students who meet the criteria for financial independence is evaluated exclusive of parental support. To be independent for 2005-2006, students must answer yes to at least one of the following questions:

1. Was the student born before January 1, 1982?
2. Is the student a veteran of the U.S. Armed Forces?
3. Is the student an orphan or ward of the court, or was he/she a ward of the court until age 18?
4. Does the student have legal dependents other than a spouse?
5. Is the student married?
6. Will the student be a graduate student in 2005-06?

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

The student is responsible for following the procedures included in the award packet 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.

Tuition Deferral

Aid which has been accepted will appear on advance tuition bills and will offset some or all charges.

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 prior to disbursement of loan funds.

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

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

Note: Tax Status of Financial Aid

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

Rights and Responsibilities

1. Students have the right to be informed of and to apply for all financial aid programs for which they are eligible and the responsibility to apply by program deadlines and to acquaint themselves with the application procedure.

2. Students have the right to know how financial need and award packages are determined and to request a review of the financial aid package should circumstances change to negatively affect the family’s ability to meet costs of attendance, and the responsibility to notify the university should new resources become available to the student which were not originally considered.

3. Students who borrow have a right to full disclosure of the terms and provisions of loan programs, including typical repayment schedules and the responsibility to attend exit interviews before leaving the university. They must repay loans on a timely basis and keep the university informed of their current address.

4. Students have the right to be informed of financial aid policies and have the responsibility to be aware of all published financial aid policies and to comply with these policies.

5. Students have the responsibility to submit accurate information on all university documents relating to the financial aid application process.

Sources of Aid

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

Board of Trustees Scholarships

The Centralis Scholarship Program

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

The Martin H. Cholakian Centralis Scholarship

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

John P. and Doris L. Crippo Endowed Centralis Scholarship

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

Rollie Denison/Development Board Centralis Scholarship

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

Fabiano Family Centralis Scholarship

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

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

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

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

Robert and Lura Myers Centralis Scholarship
Robert and Lura Myers of Lapeer, Michigan established an endowed Centralis Scholarship in 1997

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

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

Robert Benjamin Shaver Centralis Scholarship
Converted in 1996 from a loan fund established through the estate of Robert Benjamin Shaver, lifelong resident of Gratiot County. Spendable investment income will be awarded to CMU Centralis Scholars.

Arnold J. and Margaret L. Sowmick Centralis Scholarship
Established in 1990 by the Board of Trustees in honor of Arnold J. and Margaret L. Sowmick, respected leaders of the Saginaw Chippewa Tribe, who died as a result of a car accident July 29, 1990. Arnold was chief of the Saginaw Chippewa Tribe from 1982 to 1990 during which time his foresight and leadership were instrumental in establishing progressive programs especially in the areas of education and health. Margaret and Arnold, in their words and deeds, were friends of CMU and were instrumental in forming positive relationships which benefited their tribe and the university.

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

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

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

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

Leader Advancement Scholarship
In 1998 the Leader Education and Development (LEAD) program 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 LEAD program, the Leader Advancement Scholarship (LAS) provides $1,500 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 which is completed by the student. Scholarship recipients must maintain full-time status and a cumulative GPA of 2.75 while at CMU and show significant progress on the LAS protocol. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years.

Achievement Scholarships
Outstanding High School Students
The valedictorian and salutatorian of each Michigan high school will be eligible for $2,150 per academic year. These scholarships will be renewed automatically three additional consecutive years if a 3.25 cumulative grade point average is maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and sophomore years. Students who transfer from other postsecondary schools are ineligible. Part-time attendance at or withdrawal from CMU in any semester will cancel the scholarship for the remainder of CMU attendance.

Academic Honors Scholarship
A scholarship for $1,500 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 Michigan high schools or transfer students with a grade point average of 3.5 and an Associate Degree from a Michigan community college. The scholarship may be renewed automatically up to three additional academic years for freshmen or one additional year for transfer students if full-time status and a 3.25 cumulative grade point average is maintained. Renewal requires students to reside in on-campus residence halls in both their freshman and
sophomore years. Part-time attendance or withdrawal from CMU in any semester will result in cancellation of the scholarship for the remainder of CMU attendance. The Outstanding High School Student Scholarship or one of the Centralis Scholarships replaces the Academic Honors Scholarship.

If a student will be completing degree requirements in less than the number of terms specified above, the scholarship allocated for the final term of the award may be applied to the costs of the preceding term. Unused scholarship funds will not be refunded to the student.

It is the student's responsibility to request this payment during the term immediately prior to one's expected graduation and to present documentation (i.e., graduation audit and class schedule) to the Office of Scholarship and Financial Aid indicating one's expected graduation date.

Community College Transfer Recognition Award

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

Lloyd M. Cofer Scholarship

Established in 1980 in memory of Dr. Lloyd M. Cofer, charter member of the CMU Board of Trustees, for ten scholarships equal to $4,125 per year to deserving undergraduate students who are graduates of a Detroit public high school. Scholarships are renewable for three additional years for recipients who maintain a satisfactory academic 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.

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.

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.

Speech and Dramatic Arts Talent Scholarships

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

Broadcast and Cinematic Arts Talent Scholarships

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

Music Talent Scholarships

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

Endowed and Contributed Scholarships

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

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.

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. 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 grade point average and satisfactory academic 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.

CMU Grants

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

CMU President’s Award

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

The President's Award for Undergraduate International Students

This award honors non-United States resident high school seniors who will graduate with at least a 3.3 (on a United States 4.0 scale) grade point average, have a 22 or higher ACT composite score (or SAT I of 1,000), a TOEFL score of 550 (213 for computer-based testing), for applicants whose native language is not English, and enroll directly as freshmen at CMU as on-campus students. 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 three consecutive years if students continue to be non-United States residents, reside in on-campus residence halls in both their freshman and sophomore years, complete at least 12 credits each semester (for a total of eight semesters of continual enrollment at CMU), and maintain a 3.25 cumulative grade point average.
**Michigan Merit Award**

The Michigan Merit Award is a merit-based program to reward student achievement as measured by the Michigan Educational Assessment Program (MEAP) tests. Qualifying students will receive notification from the Michigan Merit Award Board 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: www.michigan.gov/meritaward.

**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 academic progress as defined by CMU, and may not be incarcerated in a corrections institution. To apply for this grant, students must file a FAFSA.

**Federal Supplemental Educational Opportunity Grants (SEOG)**

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

**Federal Pell Grants**

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

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

**Award Schedule.** Currently awards range from $400 to $4,050. The amount of the award will be affected by costs of attendance and enrollment status at time of the Pell Grant disbursement.

**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. Every effort is made to refer students to positions compatible with their interests and qualifications, although such opportunities are not always available. 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. Placement for all student employees is processed through the Student Employment Office.

**Off-campus Employment**

Businesses and individuals in the Mt. Pleasant and surrounding areas utilize the Student Employment Office in cooperation with the Michigan Employment Security Commission to advertise available part-time positions through up-to-date job postings. These positions vary in duration. Short-term assignments are handled through a temporary student employee pool. Students may be referred for these positions through the off-campus referral service. 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 repaying the loan and 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 years or longer after leaving Central Michigan University. Students are urged to consider their ability to repay a loan, their future credit rating, and their potential indebtedness before accepting a loan. The staff of the OSFA are available to discuss the implications of loans on the student's future financial situation.

Federal Perkins Loan

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

Loan Stipulations

No interest is charged on this loan while the student maintains at least half-time status, but five percent interest is charged beginning nine months after the student leaves school. The student has up to ten years to repay the loan after leaving school, depending on the amount that was borrowed. 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 professional practice or service; and certain types of disability cases. Up to 100 percent of the loan may be canceled for a borrower who must begin repayment. Several repayment options are available; contact the federal servicer for details.

Financial Aid & Scholarships

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<tr>
<th>Amount Borrowed</th>
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</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.

William D. Ford Direct Federal Loan Program

Subsidized Loans

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

Undergraduate students making satisfactory academic progress who carry at least six (6) semester hours may borrow up to $2625 for the first year of undergraduate study, $3,500 for the sophomore year, and $5,500 for the junior and senior years of undergraduate study, depending on financial need. The aggregate maximum for undergraduate study is $23,000. Graduate students making satisfactory academic progress who carry at least five (5) semester hours may borrow up to $8,500 per year, or up to their financial need, whichever is less. The aggregate maximum for undergraduate and graduate study combined is $65,500. Application is usually made for one semester or an academic year (9 months), with summer school requiring a separate award.

Borrowers, beginning July 1, 1998, may borrow at an annual variable interest rate based on the 91-day Treasury bills plus 2.3 percent, capped at 8.25 percent. There is a 3 percent origination fee deducted from the loan amount.

Six months after ceasing to be at least a half-time student, the borrower must begin repayment. Several repayment options are available; contact the federal servicer for details.

Unsubsidized Student Loans

Provisions are the same as the Federal Direct Subsidized Loans, except that the loan is not based on need. The program is open to students who do not qualify for the Federal Direct Subsidized Loans or who do not qualify for the full amount. The student is responsible for the interest that accrues while he/she is in school. Independent students may borrow the Federal Direct Subsidized Loan limits as well as an additional Federal Direct Unsubsidized Loan up to $4,000 per year for freshmen and sophomores, up to $5,000 per year for other independent undergraduates, and up to $10,000 per year for graduate students. The repayment interest rate is the same as the Direct Subsidized Loan. Beginning July 1, 1998, the interest rate that borrowers pay while in school is an annual variable rate based on the 91-day Treasury bill, plus 1.7 percent, capped at 8.25 percent. There is an origination fee of 3 percent.

Direct PLUS (Parent) Loans

The Federal Direct PLUS Loan program makes loans at an annual variable interest rate, not to exceed 9 percent, to pay for the costs of study at postsecondary schools. Repayment begins within 60 days after the loan has been fully disbursed. Under the program parents are eligible to borrow on behalf of dependent undergraduate students. Loan funds may be used only to pay for students' educational costs. The maximum eligibility for a Federal PLUS equals the cost of attendance minus estimated financial aid for the loan period. All applicants must file a FAFSA for the student for whom they wish to borrow. Processing will be initiated when the parent borrower provides requested information for the promissory note. Upon receipt of the signed promissory note, funds will be deposited to the student's account. The federal servicer is required to check the credit worthiness of all Federal Direct PLUS Loans applicants.
Loan Counseling

**Entrance Interviews.** Students who have applied for a Federal Direct Student Loan as a first-time borrower are required by federal regulations to complete an entrance interview before their loan funds may be applied to their accounts. Important information on loans, debt management, repayment options and consequences of default will be presented. Information regarding this mandatory session is enclosed with the student’s award package.

**Exit Interviews.** Students who receive a Federal Direct Loan are required by federal regulations to complete a loan interview before graduating or withdrawing from the university. Important information regarding deferment and payment schedules will be discussed. Students must contact the OSFA, located in Warriner Hall, to arrange for an interview before leaving the university. During exit counseling CMU is required to obtain the following information from the borrower:

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

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

Veterans’ Benefits

**Registration for Benefits**

All eligible students 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 six (6) to eight (8) weeks before the beginning of each semester. This time frame will insure adequate time for processing benefits and prevent an interruption of benefits. VA students in the Extended Learning programs must register fourteen days before classes begin and 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 Extended Learning programs must submit an approved copy of their program plan to the OSFA.

**Minimum Degree Hours**

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

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

Incompletes

“I” grades must be removed and a regular grade received for that course(s) within one year from the date of receipt. “I” grades are not counted in determining a student’s enrollment status for certification of eligibility for future semesters.

Deferred Grades

Certification of eligibility by the university is prohibited for deferred grades (Z).

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.

Failing Grades (E)

Students receiving VA benefits who receive failing grades must notify the OSFA. The OSFA will notify the USDVA of the failing grade if the student did not take the final exam or if the course is a repeat. The student will be required to repay the funds received for that course.

No Credit Grades

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

**Minimum Hours of VA Benefits**

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

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

Satisfactory Academic Progress

All students receiving VA education benefits are required to maintain satisfactory 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 academic progress) for undergraduate and graduate students who are placed on financial aid suspension. The OSFA will not certify future enrollment until satisfactory academic progress has been regained. Students have a right to appeal termination of benefits. The USDVA determines whether or not payments will be terminated and the conditions for reinstatement.

Credit for Previous Training

Students receiving credit for previous training (transfer students) must provide the OSFA with an official transcript from all previous schools attended by the end of the first semester or enrollment period of attendance. Until this requirement is met, CMU will not certify eligibility for any future semesters or enrollment periods. The USDVA and the student will be notified of all previous credits approved that are applied to their program to reduce the current program training time.
Curriculum Requirement

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

Independent Study

Certification by the University for independent study is at the rate of tuition and fees only. Independent study courses count toward full-time only if concurrent with 3/4 of a credit load “in residence”.

Internships and Practica

Internships and practica that meet USDVA definitions may 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 Law 634

Those eligible for educational benefits are students whose veterans-parents died of injuries or disease resulting from military service. Students generally must be between 18 and 26 years old; however, children will be permitted to begin school before their eighteenth birthday and finish after their twenty-sixth in some instances.

To be eligible for full benefits, a student covered under the above program must carry at least 12 semester hours of credit.

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 Veterans’ Trust Fund, Lansing, Michigan. Recipients must be full-time students and eligible should request an application from the Michigan Veterans’ Trust Fund of the United States Granting area.

The veteran or dependent must submit an application for benefits, and report any changes in dependency, address, place of training or mitigating circumstances.

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

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 $250-$400 per month for each school year that the scholarship is in effect.

The average ROTC scholarship cadet receives $8,862.60 annually as shown below:

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<td>Various Fees</td>
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<td>TOTAL</td>
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Additional ROTC scholarship information may be obtained by contacting personnel of the Military Science Department at 774-7440/3049.

Reserve Officers’ Training Corps (ROTC) Scholarship

Established in 1993 by CMU to provide six room and board awards on an annual basis to high school seniors winning three-year Advance Designee or four-year ROTC Scholarships.

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. Waivers are renewable if the student maintains satisfactory academic progress.
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 Award Fund**

Established in 2004 by Lawrence E. Abbott ’55. The income from this 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 Altstoff Scholarship**

Established in 1986 by James F. Altstoff in memory of his wife Marian Croft Altstoff, ’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.

**Charles L. and Mary Fisher Anspach Scholarship**

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

**Charles E. Anthony Scholarship**

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

**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.

**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.

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

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.

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.

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

Duane Mark Bouliwe History Award  
Established in 1990 by family and friends in memory of Duane Mark Bouliwe, 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. This scholarship is available to students taking courses at the CMU Biological Station at Beaver Island, MI. Contact the director of the biological station for further information.

Bill Boydken Leadership Award  
Established in honor and memory of W.B. ("Bill") Boydken by family members and friends. Bill Boydken 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.

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, Social and Behavioral Sciences, majoring in English with a GPA of 3.5 or above. Recipient will provide documented work with minority groups and persons from protected groups 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.

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

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

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

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

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

Cambridge-Howe-Calkins Scholarship  
The Cambridge-Howe-Calkins scholarship honors all the members of the Cambridge, Howe, and Calkins families who have attended Houghton Lake schools. Many of them have gone on to CMU. The scholarship is endowed by the Cambridge Family for an incoming freshman from Houghton Lake High School. The award will be made based on GPA and involvement in school and community activities. The student must live on campus while attending CMU.
Jerry and Felicia Campbell Endowed Scholarship Fund
Established in 2003 by Jerry ’62 and Felicia Campbell. Jerry is a current member and past chair of the Central Michigan University Board of Trustees and a member of the Dean’s Advisory Board, College of Business Administration. Mr. Campbell is chairman of the board of Republic Bancorp. This endowment will provide funds for incoming freshman who will be participating in the Centralis competition and who intend to pursue a degree in business. Recipients will have a minimum GPA of 3.5 and a composite ACT score of at least 28. Recipients will be expected to join a business student organization, participate in a mentoring program, and reside in the College of Business Administration’s residential college in their freshman year. This scholarship is renewable if recipients maintain a minimum 3.25 GPA and make satisfactory progress toward their major and degree program.

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

Professor Joseph P. Carey Scholarship
Established in 1988 by Colonel Alfred Asch, CMU ’50, and Naomi I. Asch of Rockville, MD, in recognition of the positive effect Joseph P. Carey had on students during his career at CMU for a scholarship with preference given to students from Beaverton High School (MI), then Gladwin and Midland counties before other Michigan counties.

Dr. Leslie O. Carlin Scholarship Endowment
Established by Dr. Leslie O. Carlin, a guidance counselor at CMU for 33 years. He and his wife Margo, a housemother, lived in a residence hall for 25 years. The Carlin Alumni House was dedicated to them in 1993. This endowment will provide funds for incoming freshman and community college transfer students who demonstrate financial need. Preference will go to students who, because of family and financial responsibilities, were prevented from participating in extra-curricular activities which might otherwise have qualified them for financial aid. This scholarship is renewable.

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

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

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 Speech 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.

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.

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

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

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

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

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
Established in 2000 by Rodney L. Crawford ’77 for a junior or senior outstanding accounting major pursuing a career in public accounting.

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.

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.

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

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

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 Chipewas who exhibits outstanding leadership and musicianship and whose integrity is beyond reproach.

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).

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.

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.

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.

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
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.

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.
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.

Theodore Goosen Award  
Established by family and friends in memory of Theodore Goosen, former owner of the Mt. Pleasant Mall 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 Govtiz and the CMU Department of Marketing and Hospitality Services Administration for students majoring in hospitality services administration with a minimum cumulative GPA of 2.5 who have at least one full semester remaining before graduation. The scholarship is based on full-time enrollment and is not renewable.

Grand Rapids Alumni Award  
Established in 2003 by Grand Rapids Area Alumni to support an endowed award for one or more full-time freshman students that reside in Kent and its contiguous counties. Transfer students are not eligible for this award.

Grand Traverse Alumni Chapter Award  
Established in 1992 through funds raised by alumni and friends in Grand Traverse County for a full-time freshman (transfer students are not eligible) with demonstrated financial need. Students will be selected from five counties: Antrim, Benzie, Grand Traverse, Kalkaska and Leelanau counties.

Barbara P. Greene Endowed Scholarship in Political Science  
Established in 2004 by Sarah and Edward Cohen (daughter and son-in-law) and friends of Barbara Greene. Barbara was a professor and chair of the political science department prior to her death in 2001. Income from this endowment will support a scholarship for students enrolled in the political science department who have interest in state and local government. Recipient must possess a minimum GPA of 3.0 on a 4.0 scale. Preference will be given to a graduate student, followed by a senior or junior.

Edgar L. and Miriam Grim Scholarship  
Established in 1965 by family, friends and associates in honor of loyal alumnus, recognized humanitarian, and Michigan Deputy Superintendent of Public Instruction, Edgar L. Grim, for junior or senior students pursuing a teaching curriculum.

Les Gruber Scholarship  
Established in 1985 by Jacoba Gruber, family and friends in memory of Les Gruber, former professor in the Department of Communication Disorders, for students majoring in communication disorders.

Hales and Nolan Family Scholarship  
Established in 1990 by Glenn R. Hales and H. Marlene Hales, CMU ‘78, and renamed in 1992 to commemorate Marlene’s parents, Lois and Delbert Nolan, Sr., for juniors or seniors with a 3.0 or higher GPA.

Aaron C. Hall Scholarship  
Established in 1984 by family and friends in memory of Aaron C. Hall, CMU Class of 1958, former director of financial aid and admissions counselor between 1965 and 1967, for Holt High School graduates as selected by Holt High School personnel.

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.

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.

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 Order of Odd Fellows Award  
Established in 1990 by Mt. Pleasant, MI, Lodge #217 for Michigan residents enrolled at CMU who have earned a 2.0 or higher GPA. Initial gifts to create the endowment were made in memory of former lodge members Roy F. Robison and Harley Philo.

Interdisciplinary Degree Programs Endowment  
Established in 2004 by Richard ’72 and Mary Lou Hazleton ’86. Mary Lou is a retired speech/language pathologist and current member of CMU’s Development Board. Richard is president and CEO of The Charles J. Strosacker Foundation in Midland and is retired as Chairman and CEO of Dow Corning Corporation. Income from this endowment will be used to support interdisciplinary degree programs in the College of Communication and Fine Arts including music theatre and integrative public relations for needs such as renewable scholarships, supplies and equipment, program support and guest artist/guest speakers. When used for scholarships, the recipients will be those who demonstrate outstanding promise in their field as determined by the program 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 International Banking Scholarship  
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. Proceeds from this scholarship will support two to five international students for one semester who are studying banking at Central Michigan University. The scholarship will allow the recipient to enroll in the first session of the Robert M. Perry General Banking School program and perform a one-month banking internship.
Financial Aid & Scholarships

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.

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.

Tyroen Jordan Endowment
Established in 2003 by Tyrone Jordan, executive assistant to the president of 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.

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.

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. Kipfmuller Endowment Fund for the Summer Remedial Clinics
Established in 2002 by the Department of Communication Disorders to recognize Dr. Kipfmuller’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. Kipfmuller served 33 years in a number of capacities for the SRC, including student, staff member, faculty supervisor, and director of the program. He worked as a CMU faculty member for 24 years and retired in 1992. Proceeds from the endowment will be used to provide revenue annually to fund scholarships for children without sufficient financial resources to pay summer remedial clinic fees.

Michael J. Kirkpatrick Leadership Award
Established in 1997 by family and friends in memory of Michael J. Kirkpatrick. It will be awarded to a CMU student who has demonstrated exemplary leadership skills in college and/or high school, demonstrated a high level of civic involvement and volunteerism while in college and/or high school, and maintains a high level of involvement with extracurricular activities at CMU.

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.

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 Alumni Board and the Dean’s Business Advisory Council. This renewable scholarship will benefit an incoming freshman who intends to major in accounting. The student must be a resident of one of the following counties: Alcona, Alpena, Antrim, Benzie, Charlevoix, Cheboygan, Crawford, Emmet, Grand Traverse, Iosco, Kalkaska, Leelanau, Manistee, Missaukee, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon or Wexford. The recipient must have a minimum GPA of 3.5 and a composite ACT score of 28 or higher.

Olive Hutchinson Kries Biology Scholarship
Converted in 1996 from a loan fund established in 1976 through the estate of Dr. Olive Hutchinson Kries, an esteemed member of the Department of Biology from 1936 to 1960. Spendable investment income will be awarded to CMU biology majors who have completed at least 30 total CMU credit hours prior to application and who have earned a 3.45 or higher GPA based on a 4.0 scale as selected by the Department of Biology.

Ole H. Kristofferson Award
Established as a loan fund by family and friends in 1974 and converted to an endowed fund in 1990 to commemorate Dr. Kristofferson, former senior member of the first faculty of the Department of Geology, for an award or appropriate equipment to geology students based on merit or achievement.

Mabel J. Kirkpatrick Leadership Award
Established in 1997 by family and friends in memory of Mabel J. Kirkpatrick. It will be awarded to a CMU student who has demonstrated exemplary leadership skills in college and/or high school, demonstrated a high level of civic involvement and volunteerism while in college and/or high school, and maintains a high level of involvement with extracurricular activities at CMU.

Arthur Loren Kontio Outstanding Young Biologist Award
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Ole H. Kristofferson Award
Established as a loan fund by family and friends in 1974 and converted to an endowed fund in 1990 to commemorate Dr. Kristofferson, former senior member of the first faculty of the Department of Geology, for an award or appropriate equipment to geology students based on merit or achievement.

Mabel and DeWayne Kyser Scholarship
Established in 2004 by Nickolas Kyser and family and friends of Mabel ’37 and DeWayne Kyser ’35. Income from this endowment will support a renewable scholarship for students enrolled in the College of Education and Human Services and who are admitted to the teacher education program, have a minimum GPA of 3.0, and able to demonstrate financial need.

LaBelle Management Scholarship
Established in 1995 to reward junior hospitality services students for their excellence in either service or academics, and to strengthen the students’ education. The selection shall be coordinated through the department chair of Marketing and Hospitality Services Administration.

George N. and Ernestine L. 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 Warniner Lewis Scholarship
Established in 1990 by family members in memory of Dorothy Warniner 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 Lichtle Memorial Scholarship Fund
Established in 2002 by friends and family of Heather Lichtle, former CMU student. Proceeds from the endowment will be used to establish a renewable scholarship for a student enrolled in the College of Education and Human Services who has an interest in teacher education and a GPA between 2.7 and 3.5. Applicants must complete an essay describing their reasons and motivation to pursue a career in education.

Leslie and Leonard Lieberman Scholarship
Established in honor of Leslie Lieberman, a specialist in family studies and faculty member at CMU from 1965 until her death in 1992, and Leonard Lieberman, specialist in physical anthropology and faculty member at CMU from 1965 until his retirement in 2004. Applicants must be majors in sociology, anthropology, social work or family studies; have a GPA of 3.4 or better; and be a junior or senior in the semester following application. Recipients are chosen on the basis of 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. Lindley Achievement Award
Established by family and friends of Damon P. Lindley, an executive of Wyandotte Cement Corporation. The purpose of the award is to aid graduating seniors in the Department of Business Information Systems during their final semester. Selection is based on overall academic achievement, initiative and contribution to the department.

Dr. David S and Bernice A. Nelson Lirones Scholarship
The Lirones Loan Fund, established in 1960 to honor parents Mr. and Mrs. Sam Lirones and Mr. and Mrs. Edward Nelson, was converted to an endowed fund in 1988 for a junior student with a 3.0 or higher grade point average with preference given to pre-medicine and osteopathy, teacher education or science majors.

Helen M. Lohr Scholarship
Established in 1987 through the estate of Helen M. Lohr for a student within the Department of Human Environmental Studies.

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 1992. He was founder of both the Department of Journalism and Information Services.

Maroon Coat Society Scholarship
This nonrenewable scholarship was established in 1981 through efforts of the CMU Student Foundation for a full-time junior or senior student active in student organizations. Applications, accompanied by a letter of recommendation from a faculty member, may be made to the CMU Carlin Alumni House.

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 Language Arts Award
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 Speech 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. McCrory, Ph.D., Scholarship
Established in 1986 to provide a scholarship for a student pursuing a teaching career.
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
Established in 2004 by the Edward E. McKenna Foundation. Earnings from this endowment will be used to establish a scholarship to support faculty expense in the Department of Sociology, Anthropology, and Social Work for incoming freshmen with a GPA of 3.0 or higher. Recipient will be a student who demonstrates exemplary achievement in sociological research methods. Competition for the scholarship will be held by the sociology department each spring with an application deadline of March 15.

Floyd H. McKibben and Olive Allen McKibben Scholarships
Mrs. McKibben bequeathed two scholarship funds in memory of her husband and herself for a worthy student. Both Mr. and Mrs. McKibben graduated from CMU and were well-known educators in Gratiot County.

Mary Jane Merrill Scholarship
Established in 1969 by parents Elwyn E. Merrill, ‘44, and Grace Bonnell Merrill, ‘41, as a tribute to their daughter and her 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.

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.

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.

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 Lois Molson. The recipient will be an undergraduate student with an English major or minor, completing the secondary education certification and who has a minimum GPA of 3.25.

Dorothy G. and Robert E. Monica Endowed Scholarship Fund
Established in 2003 by Dorothy and Robert Monica, friends of CMU. Proceeds from this endowment will be used to support a scholarship for incoming freshmen with a GPA of 3.0 or higher. Recipient will be a United States citizen, resident of Michigan, and demonstrate financial need.

James H. Moon Scholarship
Established in 1998 in honor of the Martin Moon family of Brunswick, Michigan for graduates of Freemont High School. This scholarship is awarded annually with preference given to incoming freshmen in need of financial assistance, pursuing a degree in teacher education with a minimum 3.0 GPA.

Wayne E. Moore Field Trip Award
Established in 2000 for entering geology students 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: Speech 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.

Linda Nichols Scholarship
Established in 1985 by family and friends as a memorial to Linda (High) Nichols, CMU alumna and dedicated teacher at Bullock Creek High School in Midland County, for a freshman student residing in the Bullock Creek School District or Midland County. Recipient selection is made by a committee through the guidance department at Bullock Creek High School, 1420 Badour Road, Midland, MI.

Walter P. Nickell Scholarship
Established 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 spendable investment income will be awarded to a CMU student pursuing a career in museum natural history. Application may be made through the Center for Cultural and Natural History.

Patricia A. Nixon Scholarship
Established in 1986 in memory of Patricia A. Nixon, former Department of Music faculty member, for a music major.

Colonel William B. Nolde Scholarship
Established as a loan fund in 1973 and converted to an endowment in 1990 for a ROTC cadet. The fund honors Colonel Nolde’s devotion to God, country and family. Colonel Nolde was the last combat casualty of the Vietnam War. He was a graduate and former assistant professor of military science at CMU. Colonel Nolde’s life was characterized by a dedication to peace and rebuilding, with the hope that all mankind would try to understand one another.

C.W. Olmstead Award in Geography
Established in 1992 by Clarence W. Olmstead, ’37, for scholarships or assistantships to Department of Geography students to help them gain appreciation, understanding and experience for geographic research by conducting faculty approved research projects or by assisting faculty in research projects.

Jeanne Opale Endowed Scholarship
Established in 2000 by the estate of Jeanne Opale ’87, CMU alumna. Proceeds from the endowment will be used to establish a scholarship to assist worthy students with one parent or no parents.

Oppenheimer-Mancuso (Lazorshak) Award
Established in 2000 by the Edith M. Lemieux, ’65. Estate for a senior philosophy major who submits an outstanding essay on the subject of the necessity for teaching ethics and/or character development in the elementary grades.
Wallace Parker Scholarship
Converted in 1995 from a loan fund established in 1963 to commemorate Wallace C. Parker who served CMU as a coach and director of athletics during the early years of the university’s development and for his continued interest throughout his lifetime. Annual spendable investment income will be awarded to a CMU student majoring in physical education and recreation. Application may be made through the Department of Physical Education and Sport.

The Evelyn Hill Pender Memorial Endowed Scholarship
Established in 2002 by Paul Pender in honor of his wife Evelyn Hill Pender ’48, former teacher. Proceeds from the endowment will be used to establish a scholarship for a graduate student enrolled in the Department of Communication Disorders within the Herbert H. and Grace A. Dow College of Health Professions, and who has a record of academic and clinical excellence. Preference will be given to a student with financial need.

Jacques E. and Helen M. Baer Perry Scholarship
Established in 1988 by Jacques E. Perry, ’49, and Helen M. Baer Perry, ’50, for a junior or senior majoring in foreign language who has a 3.0 or higher GPA.

Phi Kappa Tau Scholarship
Established in 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.

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

Public Safety Scholarship
Established by the Department of Public Safety officers and staff to provide financial assistance to students.

G. William Quine Scholarship
Established in 1982 by G. William Quine, ’57, for a Michigan resident student in liberal arts without regard to financial need or academic standing.

Millard Quinlan Scholarship
Established in 1999 in memory of Millard J. Quinlan, a teacher-principal in the Newberry school system, for a education major with preference extended to students from the Upper Peninsula in Chippewa, Luce or Mackinaw counties with a minimum GPA 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.

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.

Joanne Ellis Robertson Scholarship
Established in 1993 by Pauline Ellis to commemorate daughter Joanne, ’50, for students who plan to or are working toward a degree in speech and language pathology and meet other criteria as set forth by the Department of Communication Disorders.

Joyce Rohlfs Scholarship
Established by Mr. and Mrs. William E. Rohlfs and Glen Rohlfs 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.

Dan and Bobbie Rose Scholarship
Converted 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.
Joanna M. Russ Memorial Undergraduate Research and Presentation Grant

Established in 2004 by family and friends of Joanna M. Russ, the income from this endowment will be used to support a renewable research and presentation grant. Income may be used for expenses related to research and/or travel to present the results of the students research. Priority will be given to research related to CHARGE syndrome, but other research topics that qualify are autism, autism spectrum disorder and low incidence disabilities such as deafblindness. Recipient must possess a minimum 3.0 GPA and faculty sponsorship.

Grace L. Ryan Scholarship

The Grace L. Ryan Loan Fund established by alumni and friends of the university in honor of Miss Ryan’s years of service was converted to an endowment in 1992 for physical education or business majors.

Grace Larsen Sagendorf Scholarship

Established in 1999 in memory of Grace Larsen Sagendorf, ’39, former Greenville teacher, for an education major in good standing. Preference given to qualified students from the Greenville School System, then to students from Montcalm County, and then to any qualified student.

Jack Saunders Jazz Award

Established in 2002 by retired CMU Marching Band Director and Professor of Horns, Jack Saunders ’60, ’65. Proceeds from the 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.

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.

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 Industrial, 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

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.

Paul Spece Award

Established in 1999 in memory of CMU accounting professor Paul Spece, for a junior or senior accounting major.

Richard and Karen St. Andre Endowed Award

Established in 2004 by Dr. Richard ’86 and Karen St. Andre. Rich is the associate dean of the College of Science and Technology at Central Michigan University. Income from this endowment will be used to support a renewable scholarship for a junior or senior student enrolled in the College of Science and Technology’s Department of Mathematics who is majoring in math and has a minor in CPS or information technology.

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.

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 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.

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 67. 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 for pursuing studies in outdoor environmental education, ecology or conservation.

George R. Wheeler 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 Dale Ullom Baseball Endowment
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.

Ernest E. and Phyllis L. Vegerer Scholarship
Established in 1984 by family and friends of the late Ernest E. Vegerer for graduating seniors of Bay City, MI, public high schools who desire to pursue a career in teaching secondary education.

Velsor/Prasad Endowed Scholarship
Established in 2005 by Dr. S. Benjamin Prasad, a retired CMU professor of management and law. Income from this endowment will support a renewable scholarship(s) for a junior or senior who is enrolled in the College of Business Administration majoring in international business, has a minimum GPA of 3.25, and is a citizen of the United States.

Wakely Associates Teacher Education Scholarship
Established in 2004 by Wakely Associates, Inc. of Mount Pleasant, Michigan. Income from this endowment will support a renewable scholarship for a junior student enrolled in the teacher education program who can demonstrate financial need. Preference will be given to students graduating from a specific list of Michigan schools. The list may be obtained from the Office of Scholarships and Financial Aid.

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 undergraduate and graduate students majoring in the humanities and social sciences. John was the son of Eugene C. Warriner, former CMU president.

War Years Reunion Endowed Scholarship
Established in 2001 by generous contributions from Central Michigan University classes of 1946 – 1951 in honor of World War II Veterans. Proceeds from the endowment will be used to support a scholarship for a student who is a United States citizen with preference given to those students who can substantiate lineage to a World War II Veteran. Students must have a demonstrated financial need by university standards and solid academic standing.

Michael Waske Scholarship
Established by Mrs. Michael Waske (Dorothy Wright, '51) in memory of husband, Michael, '51, for students in need of financial aid with preference given to students from the Marlette and Sandusky areas.

Ruth M. M. Wesley Scholarship
Established in 1998 by Judith Mynsberge in memory of her aunt, Ruth M. M. Wesley, who graduated from Central State Teachers College with a "lifetime" certificate in 1933. This scholarship is available for students from the Bay County area with financial need who are pursuing a teaching career.

George R. Wheeler Scholarship
The loan fund established in honor of Mr. Wheeler’s career as chairperson of the Department of Conservation and Agriculture from 1947 to 1960 was converted to an endowment in 1993 for a student pursuing studies in outdoor environmental education, ecology or conservation.
Edward H. Whitmore and Stephen H. Whitmore Mathematics Scholarship
Established by family and friends to commemorate the lives of Edward Hugh Whitmore and Stephen Harper Whitmore for senior students who have earned a 3.6 or higher in their mathematics major. Dr. Edward Whitmore was a mathematics professor between 1965 and his retirement from CMU in December, 1987. He served as department chairman from 1965 to 1974 and from 1976 to 1982. Stephen Whitmore, son of Edward, was a partner with the New York law firm of Berlack, Israels, and Liberman. He specialized in the areas of corporate finance and securities law.

Craig Whitney Scholarship
Established through the estate of Mrs. Roxanna M. Whitney, widow of Clayton A. Whitney, '09, and former chairman of the geography department of State Teachers College at LaCrosse, WI.

Helen A. and W. Lyle Willhite Scholarship
Established in 1986 by Mrs. W. Lyle Willhite, daughter Maryhelen, colleagues and friends in memory of W. Lyle Willhite, first dean (1960 to 1976) of what is now the College of Business Administration and a professor of finance.

Louise A. Williams 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.

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 Zeoli Award in Computer Science
Established in 1988 by family, colleagues and members of the Department of Computer Science in memory of Dr. Harold Zeoli, who was instrumental in introducing the study of computer science at CMU, for students majoring in computer science.

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.
Campus Housing

Campus Residency Policy

Central Michigan University’s campus residency policy requires that freshman and sophomore students live in a residence hall. Students who have completed four full-time undergraduate semesters may live in housing of their choice. Those who reach the four semester requirement at mid-year are still required to complete the full term of the agreement for the academic year (fall and spring semester). The sophomore requirement has been waived for the 2005-2006 academic year except for students who are recipients of CMU merit- and talent-based scholarships with a dollar value equal to or greater than $1,500. These students will be required to reside on campus during their sophomore 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/or guardians and commuting within a 60-mile radius.
2. Married and living with spouse.
3. Veteran with one (1) or more years of active service.
4. Enrolled for six (6) 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

More than 5,900 students live in residence halls on campus. Several lifestyle options are offered in the residence halls and students may choose the one most comfortable for them, whether coeducational, all women or all men. Alcohol and tobacco free options are available. Also available are Residential Learning Centers 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, career counselor, and a personal counselor are available in each residence hall quad.

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

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

The physical arrangements of the twenty 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 to the Office of Residence Life, Bovee University Center, Room 201, Central Michigan University, Mount Pleasant, MI 48859. (989) 774-3111, fax (989) 774-6410 or e-mail at reslife@cmich.edu

Residence Dining

The four residential restaurants located throughout the campus provide dining for students living in the residence halls and off-campus. Flexibility in dining options is available to students through diverse dining plan memberships and multifaceted venues for use of flex dollars. Off-campus students may contract for a voluntary dining plan membership, with a choice of seven options. Also included in dining plan memberships are six guest meals which may be used at their discretion.

Extended dining hours accommodate class schedules and a wide variety of foods is served with an “all you can eat” policy. Special events are planned weekly. Students actively participate in the operation of their residential restaurant through table talk and the Campus Dining Action Committee.

Snack stores operate in three of the residential restaurants for an evening option. Pizza, subs, snacks, candy and beverages are just some of the menu items available. The C3 Convenience Store is located in the Towers Residence Complex. It offers an array of fresh and pre-packaged grocery and convenience items. Flex Dollars from dining plan memberships can be used in the C3 Convenience Store, Java City Coffee House, Blimpie Cart in Pearce Hall, Down Under Food Court, and Goodies to Go.

The Central Michigan University Campus Dining office is located at 201 Bovee University Center. The phone number is 774-6406. To purchase dining plan memberships or FLEX Dollars online, visit http://cmu.mealplansonline.com. Visit our website at http://webs.cmich.edu/dining/index.htm.

University Apartments

There are 431 family housing apartments available on campus. One, two, and three bedroom university apartments are assigned according to date of application. Application forms are available at any time and should be made well in advance of desired occupancy. A deposit is required at the time the application is returned. The majority of family housing units are furnished. Rates include utilities, cable hook-up, internet hook-up, and local telephone service.

There are very few single student apartments available on campus. One bedroom units typically house two students and two bedroom units house two to four 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 reslife@cmich.edu.
University Libraries

Thomas J. Moore, Dean
Park 407

University Library

The recently renovated and expanded University Library houses a collection of over 1,000,000 volumes of books, periodicals, and documents and maintains approximately 3,200 periodical and newspaper subscriptions and offers online access to hundreds of databases. The University Library also has a significant microform collection of 1,340,000 items which include long periodical and newspaper runs, as well as large sets of education research reports, early English and American books, presidential papers, and other manuscripts. The library is a selective depository for U.S. and Michigan government documents and maps. Research materials not available in the library can be obtained from other sources around the world through the library's Interlibrary Loan office.

More than just a collection of books and periodicals, the University Library is also the center of a large array of library services and study areas which are open 97.5 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 the areas of 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.

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 774-3294 any time for current library hours.

Clarke Historical Library

The Clarke Historical Library collects print and manuscript items regarding Michigan and the Old Northwest Territory. The Library's holdings are extensive. Over 65,000 printed items, 3,500 manuscript collections, 10,000 reels of microfilm, 16,000 visual images, and 2,100 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-Americans. Because of the uniqueness of much of the material in the Clarke Historical Library, items in the Library are not available for circulation but must be consulted in the Clarke Historical Library's reading room located in 142 Park Library. Hours of service are posted, but patrons may dial 774-3352 for Library hours or 774-3864 for reference assistance.

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

Instructional Materials Center

The Instructional Materials Center, located on the lower level of Ronan Hall, serves Education and Human Services and the university and local community. This area houses instructional materials for prekindergarten through twelfth grade, as well as the University Libraries' Children's and Young Adult Literature Collection, standardized tests, microcomputer hardware and educational software, teacher "tips and ideas", and school district information. 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 and visual non-print materials. The IMC Word Processing Lab has Microsoft Office and AppleWorks. The EHS/Dow Chemical Multimedia Lab is set up for multi-media instruction and production. The Ameritech Telecommunications Lab is available for instructional and educational use. Further information, including hours, may be obtained by calling 774-3549. Tours can be arranged upon request.
Student Services

Academic Supports: Advisement and 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. All entering undergraduate students are assigned a general academic advisor. In 1994, CMU’s advising program received national recognition as an Outstanding Institutional Advising Program by the National Academic Advising Association. 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 205, to offer comprehensive services to students in the area of tutoring or on-campus referrals.

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

Tutoring. Many students find that they need some assistance in one or more subject areas. Tutoring is available for 100 and 200 level course and those courses which are part of the University Program. Some subjects are considered to be traditionally difficult, and walk-in tutoring is provided in these subject areas. Mathematics and physics have walk-in tutorials. Other subjects are tutored in small groups or one-on-one. Tutoring is free, and to obtain a tutor, students must visit Academic Advising and Assistance, Bovee University Center 205.

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

A course in reading improvement is offered to assist students in comprehension and critical reading skills. These classes are:
- EHS 102 (2) Academic Learning Skills
- EHS 103 (2) Reading Improvement
- EHS 104 (2) Study Skills for Non-Traditional Students

Academic Departmental Advising

When students are ready to consider a major or minor program, it is recommended that an appointment be made arranged 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.

Documents reflecting transferability of coursework from Michigan community colleges are available as well as partial listings from many Michigan four-year colleges and universities. See http://www.registars.cmich.edu/TransferCredit/. Students planning to complete coursework elsewhere should check with this office in advance for transferability information. The transfer printouts are available on a walk-in basis and appointments are not needed.

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, Receivable Accounting, or Undergraduate Academic Services. An official graduation audit indicating remaining requirements for your degree will be mailed to you. Appointments may be made to confer with the Graduation Coordinator regarding remaining questions, concerns or clarifications.

To be assured of receiving an audit of remaining graduation requirements prior to beginning the last semester or session, a student must file the "Application for Graduation" no later than September 15 for May graduation, January 15 for August graduation, and April 15 for December graduation. For further information refer to "Graduation Requirements" in this Bulletin.

In the process of earning a degree, many students find it helpful and necessary to seek assistance with specific questions. Contact the Undergraduate Academic Services Office, 123 Warriner Hall, 774-3504.
**Counseling Center**

Accredited by the International Association of Counseling Services, the Counseling Center provides confidential services for currently enrolled CMU students including time-limited individual and group counseling for: 1) personal issues such as anxiety, depression, loneliness, identity, alcohol/drug abuse, couples concerns, premartial and marital counseling, family stress, loss and personal growth and development; 2) career exploration, particularly for undecided students and students questioning choices they have already made; 3) improving academic success through reducing anxiety (e.g., test, math, speech), reducing stress, learning study skills and time management; and 4) serving as a sexual assault and domestic violence crisis center. Group services are designed to address many topics including anxiety, relationships, stress management, self-esteem, grief and loss, depression, yoga for stress management, and codependency. The Counseling Center’s website (www.counsel.cmich.edu) provides information on center services and counselors, community resources, mental health screening, and links to a wide variety of information. There is no charge for these services.

Other services the Counseling Center provides include serving as a referral resource for students, parents, faculty, staff and administration; consultation with students, parents, faculty, staff and administration; growth groups and workshops; in-service training and consultation services; outreach programs (available upon request); referral to appropriate off-campus agencies and other CMU services and resources; supervised practicum for psychology, counselor education and social work students; mental health screening; testing (interest, personality); and on-call during academic year. (Note that there may be a modest fee to cover the cost associated with test administration.)

Counseling Center faculty includes professional counselors, psychologists, and social workers. Students may meet individually with a counselor by making an appointment. Daily urgent appointment times are available. Counseling assistance may be obtained at the Counseling Center, 102 Foust Hall, 774-3381 and through Counselors in Residence who work in offices at various residence hall locations. Counselors in Residence who work in offices at various residence hall locations. Counselors in Residence who work in offices at various residence hall locations. Counselors in Residence may be contacted in the Towsers (774-1480). North Campus (774-4928), South Quad (774-3089) and East Quad (774-1879) residence halls. Counselors in Residence are employees of Residence Life and are administratively separate from the Counseling Center.

**Academic Supports: Testing and Diagnostic Services**

**Computer-based and Placement Testing Center**

Testing programs administered through the center include the College-Level Examination Program (CLEP), through which students can gain credit in many areas; the examinations developed for the General Education Competency Program; and the nationally-developed testing programs for those seeking admission to graduate programs. The center is located on the lower level of Robinson Food Commons, 774-1092 (the web site is http://www.cmich.edu/cbptc/).

**Human Development Clinic**

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

**Psychological Training and Consultation Center**

The Center provides psychological services to community residents in central and northern Michigan. The Center provides assessment and/or psychotherapy services to infants, children, adolescents, adults, and the elderly. Depending on the specific area of concern, services can often be provided in individual, couple, family, or group formats.

The faculty and staff associated with the Center represent diverse theoretical orientations and content areas. (e.g., cognitive-behavioral, interpersonal, and psychodynamic)

In addition to general clinical psychology and school psychology services, the Center offers specialized services that are coordinated by Psychology Department faculty with a particular expertise. The following specialty services are currently available: Trauma and Anxiety Disorders Clinic, Parent Child Interaction Therapy, Neuropsychological Assessment/Rehabilitation Clinic, Health Psychology, Learning Disability and Child Attention Problems Clinic, and Violence Reduction Clinic.

For community groups and agencies, the Center provides demonstration, lectures, education programs, and in-service education relating to applied topics in psychology.

The Center is located in the new Health Professions building and may be reached at (989) 774-3808.

**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. These clinics are part of the Carls Center for Clinical Care and Education. The clinics emphasize complete programs in evaluation, diagnosis, and rehabilitation of children and adults with communication disorders. The academic and clinical service programs in Audiology and Speech-Language Pathology are nationally recognized by full accreditation from the Council of Academic Accreditation of the American Speech-Language-Hearing Association.

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 is located in the Health Professions Building and may be reached at (989) 774-3904.
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.

Student services that are located at the Bovee University Center are Student Life, Student Services Court, Career Services, Minority Student Services, Multicultural Center, Native American Programming, and International Education. The Student Government Association, Program Board, and 22 student organizations are also housed at the UC. Several retail operations are provided, such as the Bookstore, which carries a full line of required class materials, student supplies, CMU clothing, and gift items; Independent Bank, a full service bank; Central Box Office; and a copy center.

Complete food service operations are offered, including the Down Under Food Court (open Monday-Friday) and Blimpie Subs/Freshens Yogurt. Also located in the UC are Campus Information, the Non-Traditional Student Lounge, the Faculty-Staff Lounge and the CHIP Card ID office.

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.

Student Activities and Organizations

Central Michigan University provides students with opportunities to become involved in more than 200 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 their 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 on 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.

Students interested in volunteer work will have ample opportunity to increase their involvement through various organizations. Activities include working with children, the elderly, the differently-abled, and others. For more information contact the Volunteer Center or the Office of Student Life.

The Student Organization Center (SOC), located on the lower level of the Bovee University Center, houses about thirty student organizations. 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. Leadership workshops are also sponsored by the Office of Student Life. The office is located in the Bovee University Center. See 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 Judicial Proceedings Officer, Office of Student Rights and Responsibilities, who administers the policies and procedures.

Office of Gay and Lesbian Programs

The Office of 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.

For information call: Office of Gay and Lesbian Programs, Sloan 130, Central Michigan University, (989) 774-3637.

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.
Sexual Aggression Services

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

University Policy 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.

Minority Student Services

Minority Student Services, located in Bovee University Center Room 121, is a comprehensive office which 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 minority student groups in planning and implementing political, social, and recreational activities. Specific programs and initiatives offered through the office include cultural celebrations, Student Enrichment Mentor Program, Supplemental Instruction, King/Chavez/Parks Extended College Day, 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. For more information, call (989) 774-3945 or e-mail at MSS@cmich.edu. The website is http://www.diversity.cmich.edu/mss/.

Student Ombuds Officer

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, Warriner 114, 774-3010. Office hours are Monday through Friday from 9 a.m. to 3 p.m.

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

Assistance for Students with Disabilities

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

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

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

Information Technology

Central Michigan University has a wide variety of technology resources and technology support available for students, faculty, and staff. Information Technology (IT) is responsible for providing the CMU community with a diverse and technically rich learning and research environment. CMU and Information Technology support an ongoing planned investment strategy to keep CMU technology resources upgraded and available to students and faculty. CMU supports a growing emphasis on innovative learning and teaching through the use of an enabled technology infrastructure.

Student E-Mail Policy: 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 statements 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.

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. The main student lab, located at Woldt-Emmons/Saxe-Herrig residence hall complex is available 24 hours a day, seven days a week. The College of Business Administration also houses the CBA Computer Center in Grawn Hall, and the College of Science and Technology houses the Pearce Computer Center on fourth floor of Pearce Hall. There are approximately 410 computers available for student use through these public labs.

IT Help Desk: A technology help desk is housed in the first floor of Park Library. The IT Help Desk assists students, faculty, and staff with university-sponsored software applications and hardware systems. In addition to general computing questions, assistance is also available for computer repairs.

CMU Student Portal: Central Michigan University offers a student-centered web portal located at: http://my.cmich.edu. The portal is designed specifically with CMU students in mind, and provides students with comprehensive information in a number of different topic areas that may be of importance to them. Some of these areas include activities, academics, employment, available services, and access to a variety of individual student records.

CMU Calling Card: All students, faculty and staff members of CMU are eligible to sign up for the CMU Calling Card program. The card offers highly competitive rates and calling plans for all long distance calls, and carries no minimum usage or monthly service fees. International rates vary depending upon the country being dialed. The card may be used anywhere in the United States. Additional cards for spouses or family members are also available.

Media Services: A large collection of instructional videocassettes is available for use in CMU classes, and is also available for checkout by students. Media consultation and A/V equipment maintenance are also available.
Acceptable Use Policies: All users who operate or use any of the computing systems and networks of the university must abide by the acceptable use policies. The acceptable use policies are published on the web at http://www.oit.cmich.edu. The policies are intended to supplement existing university and external policies, regulations and laws.

Please call the IT Helpdesk at (989) 774-3662 for additional information or visit the IT Web site at http://www.oit.cmich.edu.

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/prtservices.htm.

Leadership Institute

Introduction

The Central Michigan University Leadership Institute functions as the coordinating body for the university’s present and future leadership-related activities and programming. Specifically, 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 and 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 the offices at Residence Life, Student Life, and Minority Student Services. The Institute offers specific 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 during the freshman year 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

During the second 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. Leadership 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

During the 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 designated 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, the leadership experiences during the senior year 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 student organization. Ultimately, the student will have the opportunity to “shadow” a community leader or participate in an internship.

For more Information Contact:
The Leadership Institute
Central Michigan University
Powers 130
Mt. Pleasant, MI 48859
(989) 774-1909
Student Activity Center

University Recreation (URec)

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

Facilities are provided for aquatics, weight fitness, jogging, bowling, billiards, aerobics, racquetball, archery, golf ball driving, table tennis, basketball, volleyball, badminton, tennis, floor hockey, indoor soccer, dances, movies, and other various kinds of leisure activities. These activities are directed by a highly qualified campus recreation staff in conjunction with a large student staff.

Programs are designed to help students, faculty, and staff maintain a high-quality lifestyle and to provide choices for active use of leisure time. Activities are offered within the program areas of open recreation, intramurals, fitness, social activities, and special events. The department also advises sport clubs.

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

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

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

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

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

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

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

Athletics

Many students participate in the men’s and women’s athletic programs under the guidance of experienced coaches. Our intention is 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 Enrichment

Courses on Cultural Diversity

Within the United States

CMU offers a diverse array of courses on cultures within the United States. Currently, these courses include:

- ANT 320 (3) North American Indian Cultures
- ANT 351 (3) The Race Concept and Human Variation
- ANT 365 (3) Current American Indian Issues
- ANT 368 (3) Hispanic Cultures in the U.S.
- ART 384 (3) Arts of Non-European Traditions
- ART 497A (1-6) Special Studies (Native American Art)
- ART 597A (1-6) Special Studies (Native American Art)
- BLR 222 (3) The Search for Racial Justice Through Law
- EDU 213 (3) Preprofessional Practicum in Bilingual Bicultural Education
- EDU 513 (3) Foundations of Bilingual Bicultural Education
- EDU 514 (3) Methods and Materials for Bilingual Bicultural Education
- ENG 328 (3) Literature of the North American Indian
- ENG 329 (3) African American Literature
- ENG 582 (3) Cultural Pluralism in Young Adult and Children’s Literature
- HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
- HST 323 (3) History of Native Americans
- HST 324 (3) African American History to 1915
- HST 325 (3) African-Americans in 20th Century America
- HST 518 (3) African-Americans and the Legal Process
- JRN 372 (3) International and Cross-cultural Mass Communication
- JRN 380 (3) Racial Diversity: Mass Media’s Role
- LAR 145 (3) Racism and Diversity in America
- OJB 101 (3) Elementary Ojibwe I
- OJB 102 (3) Elementary Ojibwe II
- OJB 201 (3) Intermediate Ojibwe I
- OJB 202 (3) Intermediate Ojibwe II
- PHL 345 (3) The Civil Rights Movement*
- PSC 125 (3) African-American Politics
- PSC 325 (3) The Civil Rights Movement*
- PSC 533 (3) Psychology of Racism
- REL 140 (3) Religion, Race, and Discrimination in America
- REL 240 (3) African-American Religion
- REL 342 (3) From Spirituals to Gospel
- REL 345 (3) The Civil Rights Movement*
- SOC 323 (3) Racism and Inequality
- SOC 345 (3) The Civil Rights Movement*
- SOC 502 (3) Theories of Race Relations in Sociology

*These courses are identical.
**Student Media**

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

**Central Michigan LIFE.** This is the official university student newspaper published three times a week while the university is in session. It is student-written and provides practical experience for journalism students. It covers campus events and major city, state, and national news.

**The Central Review (formerly Framework).** This student publication is the official university literary magazine. It is published twice during the academic year.

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

- **Moore Hall Television.** Operating locally over cable channel 34, Moore Hall Television offers broadcasting students practical experience in all phases of television programming including News Central, Mid-Michigan’s only daily television news program. Other series include game shows, movie reviews, and dramatic features.
- **WMHW-FM.** Operating at 91.5 mHz, WMHW-FM is the laboratory radio station for the BCA department. It transmits its stereo signal to Isabella County throughout the year to offer applied experience in every aspect of radio operations and management.

**Public Broadcasting**

**Television.** Central Michigan University owns and operates public television station WCMU-TV, channel 14, Mt. Pleasant; WCML-TV, channel 6, Alpena; WCMW-TV, channel 21, Manistee/Ludington; and WCMV-TV: 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, around the year, servicing a potential audience of nearly one million. The stations are also on a number of cable systems throughout the state.

CMU Public Television is staffed by professional production personnel, as well as by students seeking a practical background in broadcasting. The stations are affiliated with the Public Broadcasting Service.

CMU Public Television is located in the Public Broadcasting Center on the corner of Mission and Broomfield.

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

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

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

**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.

**CMU 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. Several teaching laboratory/classrooms are available and are equipped to accommodate courses that rely on both laboratory and field experiences. A bookstore, library, computer room, natural history museum and research buildings are also provided as classroom support. Additionally, CMU owns a 230 acre natural area on the southwest side of Beaver Island known as The Miller’s Marsh Natural Area. This tract of land serves a variety of field courses offered at the station by providing a highly diverse site for field trips, research and other activities.

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

**Neithercut Woodland**

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

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

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

**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.
Special Olympics Michigan

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

Multicultural Educational Center

The Multicultural Educational Center's mission is to assist in building an inclusive and respectful community. The curricular and Cocurricular programs coordinated through the Multicultural Educational Center provide opportunities for learning about the diversity of people and cultures represented at CMU, and help students prepare for a more diverse and globalized world.

In conjunction with the Multicultural and Diversity Education Council, center staff coordinate and develop diversity training for the university community, assist faculty with curricular and pedagogical changes that promote diversity, and facilitate discussion groups. Located on the lower level of Bovee University Center, the center sponsors speakers, art exhibits, performances and other events. The center is open to the public during the week, including evenings, Monday - Wednesday. Information about the center and its events may be obtained either by visiting, or by calling (989) 774-7318.

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.

The Museum of Cultural & Natural History

The museum, which is located near the northeast entrance of Rowe Hall, is a creative learning center that serves CMU's faculty, staff and students, as well as the general public. As the repository for historical, cultural and scientific collections acquired by the university, the center's essential academic function is as a research and teaching facility. For information on museum careers and CMU's Museum Studies program, contact the museum office, 774-3312.

At the museum, visitors can view exhibits and realistic dioramas which portray humans' past, present, and future relationship to the cultural and natural world. Hallway exhibits expand on the theme of the main gallery. Native American arts and issues are the focus of the gallery off the main hallway.

The research collections consist of more than 20,000 biological specimens; 5,000 anthropological artifacts collected on the museum's archaeological excavations; 12,000 historical artifacts donated to the museum; and nearly 3,000 rocks, minerals and fossils in its geological collection. These collections are made available to faculty, staff and students to enhance classroom activities. Faculty, staff and students are encouraged to contact the museum to schedule tours, programs, loans, or any other support needed.

One project of the museum was the restoration of a one-room schoolhouse which is presently being used to house the Gerald L. Poor School Museum. This living museum of rural education is located on Preston Street and is available daily for public viewing and group use by calling the museum office.

University Art Gallery

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

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

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.

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, a source 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, the Office of 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.
Public Relations and Marketing

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. They assist university clients in effectively disseminating information and marketing the university's events, academic programs, faculty and staff research, athletics, development initiatives, alumni activities, and student achievements.

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 magazine, CentraLight; the weekly online staff newsletter, Inside CMU; the monthly television show, Inside Central; the Facts and Figures publication; the CMU Source Book of faculty experts; and the daily CMUTODAY all-staff e-mail LISTSERV.

Public Relations is located in West Hall on CMU's campus. The phone is 989-774-3197, or e-mail them at cmuline@cmich.edu.

Office of Research and Sponsored Programs

The Office of Research and Sponsored Programs encourages graduate and undergraduate students, as well as faculty and staff, to engage in research and creative endeavors. The office supports student research by offering Undergraduate Research Grants, Graduate Student Research Grants, Dissertation Support Awards, Publication & Presentation Awards, and the Undergraduate Summer Scholars Program. The office supports faculty/staff research through Faculty Research and Creative Endeavors, the Research Excellence Fund and Presidential Research Incentive Funds. Research and creative endeavors are promoted through the annual Student Research and Creative Endeavors Exhibition held near the end of spring semester, and the Faculty Excellence Exhibition, held in March of each year. In addition, the office assists faculty and staff in securing external support for research, academic programs, and other projects.

For assistance or additional information, contact the Office of Research and Sponsored Programs (989) 774-ORSP; http://www.orsp.cmich.edu/.

University Health Services

Eligibility. All regularly enrolled CMU students, their spouses, and other authorized users are eligible to use Health Services. Proper CMU identification is required to obtain services.

Emergencies. Dial 911 for ambulance and CMU police assistance. Emergency care is provided by the Central Michigan Community Hospital Emergency Room.

Clinic Hours. Monday-Friday, 8 a.m. to 5 p.m. A same day/future date appointment system minimizes waiting time. Call 989-774-5693 /TTY: 989-774-3055 to schedule an appointment. Walk-in service for urgent problems is available in the Primary Care Suite, Foust 202.

Payment. There are fees for the care provided, but payment is not required on the date of service. Health Services will bill the student's primary insurance carrier if current health plan enrollment information (insurance card or photocopy of it) is provided at the time of the visit. Insurance billing is provided and Health Services participates with a number of insurance plans. Contact the Health Services Business Office, Foust 108, 989-774-3059 for additional information about billing and insurance.

Location and Parking. University Health Services is conveniently located on campus in Foust Hall at the corner of Preston and East Campus Drive. For easy access, students are encouraged to use the Preston Street entrance. Reserved parking spaces are available in Lot 29 at the east end of Foust Hall, metered parking is available in Lot 28 at the west end. Student permit parking is located in Lot 33 on the south side.

Responsibilities. The primary responsibilities of University Health Services are to provide readily accessible health care, health education, health promotion, disease prevention, and communicable disease outbreak management services for Central Michigan University students and other authorized users.

Clinical Services Available. Board certified/eligible physicians work in teams with a physician assistant or nurse practitioner to provide services similar to those you would receive from your family doctor, an urgent care facility, or public health department. Emphasis is placed on patient education and including the patient as an active partner in the plan of care. Services include diagnosis and treatment of illness and injuries; physical examinations; immunizations and travel health services; TB skin testing; allergy injections with serum from the student's allergist; women's health care services, including Thin Prep Pap smears and birth control options; confidential HIV/AIDS testing and other STD testing and treatment; basic rehabilitation services provided by a certified athletic trainer under the supervision of a Health Services physician. In addition, Health Services has a pharmacy and laboratory on site. Both accept orders from outside providers. X-ray and other diagnostic imaging services are also available.

Clinical Services Not Available. Health Services does not provide major or elective surgery; hospital inpatient care; emergency room care for life threatening illnesses or injuries; obstetrical care; physical therapy; fitting of glasses or vision care; or dental services. Referrals to physical therapy or to other specialty care are provided when needed.

Student Health Insurance. A nationally-recognized health insurance carrier offers and administers a reasonably-priced optional health insurance plan for CMU students and their dependents. Plan options, premium costs, and enrollment applications are available on the University Health Services web site at www.healthservices.cmich.edu and in the Health Services Business Office, Foust 108.

Medical Records. Medical records are maintained for students and other authorized users at University Health Services. The information is confidential and will not be released to anyone without the patient's authorization, except as permitted or required by law. Students are asked to submit a pre-entrance health history report and pre-matriculation immunization record to assist University Health Services in providing safe, effective, and appropriate care.

Concerns, Comments, Suggestions. University Health Services seeks to continually improve its services and values input from users regarding the care provided. Concerns, comments, or suggestions about the services can be addressed by completing a Patient Satisfaction Survey at the time of the visit, speaking with a staff member or unit supervisor, contacting the Director, Foust 249, 989-774-3944, or via e-mail at healthservices@cmich.edu.
Office of International Education (OIE)

Dr. Guilan Wang, Director
Bovee University Center 106
(989) 774-4308
http://www.oie.cmich.edu

Mission

The mission of the Office of International Education (OIE) is to support the University’s central educational purpose of striving for excellence in liberal arts and professional programs to train students who will be responsible global citizens and effective world leaders. As the focal point in the international arena at CMU, the OIE must aggressively pursue initiatives that will assure our students and faculty an active, productive, and rewarding role in shaping tomorrow’s global community through providing campus-wide leadership within the functional areas of coordinating, planning, developing, and financing international programs and initiatives.

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

To achieve these goals, OIE would:

1. develop recruiting strategies to enlarge the international student application pool to attract the best, to increase the number, and to maintain the cultural and geographical diversity of international student body;
2. increase the number of students participating in study-abroad programs as well as other opportunities abroad;
3. provide the best and the most comprehensive support services to international students and scholars so that international students and scholars will have a smooth transition to CMU life and a successful stay at CMU;
4. enhance the level of international understanding among members of the CMU community by sponsoring, organizing, and developing international programs that are academically, culturally, and socially rich;
5. maintain an up-to-date CMU International Education Information Clearinghouse; and
6. keep abreast with 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.

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

Nationally, CMU is an institutional member of the College of Consortium for International Studies (CCIS), Council for International Education Exchange (CIEE), International Student Exchange Program (ISEP), Midwest Consortium for Study Abroad (MCSA), Phi Beta Delta National Honor Society, NAFSA: Association of International Educators, and AIEA: Association of International Education Administrators.

Highlights of Services

Study Abroad

CMU offers over 100 study abroad programs in more than 30 countries. The programs are designed to provide all interested students with the opportunity to live and study outside the United States for a summer, semester, academic year, or even spring break. Study abroad introduces students to different higher education systems, to the ways of life of other cultures, and enhances cross-cultural communication skills. It is also an important opportunity for personal growth and development.

The OIE administers CMU’s tuition exchange programs in The Netherlands, France, England, Chile, Mexico, Denmark, and Japan. These programs allow CMU students to pay CMU tuition to study abroad. In addition, OIE administers other low-cost study abroad programs through the International Student Exchange Program (ISEP) and College Consortium for International Studies (CCIS).

Knowledge of a foreign language is not necessarily required. Stud ents may take courses taught in English in the Netherlands, Austria, Italy, Czech Republic, China, Costa Rica, France, Ghana, Japan, Malta, Sweden, Finland, and more.

The OIE helps students choose an appropriate study abroad program and works to ensure that they will receive academic credit for work completed outside the United States. In addition, the OIE offers study abroad scholarships and works closely with the Office of Scholarships and Financial Aid to ensure that financial assistance is provided to eligible students.

International Students

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

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

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

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

Faculty and Staff Exchanges

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

Phi Beta Delta

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

Community Activities

The OIE works closely with community groups, individuals and institutions interested in international understanding and activities. It supports and/or sponsors numerous programs that seek to respond to the international needs and interests of the community.
Central Michigan University’s graduate programs enroll students from around the United States as well as from countries around the world. These students have several options available for admission:

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

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

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

4. Undergraduate students who have 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, some university fees, and a 30-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, as well as special fellowships for African-American, Hispanic, and Native American students. Graduate Assistantships, involving teaching, research, or administrative work, consist of a stipend, some university fees, plus a 20-credit tuition scholarship (prorated for part-time appointments). Individual departments award the assistantships; inquiries should be directed to department chairs. Loan and work opportunities are also available for graduate students.

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

**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

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

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

**Geography**
- MS Geographic Information Sciences

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

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

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

**Humanities**
- MA Humanities

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

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

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

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

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

**Politics, Government, and International Relations**
- MA Political Science
- MPA Public Administration
- MPA Public Management
- MPA State & Local Government

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

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

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

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

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

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

**Graduate Certificates:**
- Acquisitions Administration (MSA)
- Autism
- Business Computing
- European History
- General Administration (MSA)
- Health Services Administration (MSA)
- Hospitality & Tourism Administration (MSA)
- Human Resources Administration (MSA)
- Information Resource Management (MSA)
- International Administration (MSA)
- Leadership (MSA)
- Long-Term Care Administration (MSA)
- Modern History
- Professional Development in Public Administration
- Public Administration (MSA)
- Software Engineering Administration (MSA)
- United States History
- Vehicle Design and Manufacturing Administration (MSA)
Off-Campus Programs

D. Terry Rawls, Interim Vice President and Executive Director
774-4456
E-mail: CELInfo@cmich.edu
Web Page: www.cel.cmich.edu

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 were established in 1971 as the Institute for Personal and Career Development to help meet that goal.

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

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

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

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

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

Courses through Distance/Distributed Learning and at Metro Detroit centers, Saginaw, Flint, Lansing, Traverse City, Grand Rapids, and other locations coincide with campus terms.

Curricular Offerings

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

At the undergraduate level, students may pursue a Bachelor of Science degree (with a major in administration, a major in vehicle design, or an option in community development); or a Bachelor of Applied Arts degree with a major in administration. Graduate programs, which are described in the CMU Graduate Bulletin and the Off-Campus Programs Bulletin, include the Master of Arts in Humanities; the Master of Science in Administration (with concentrations in Acquisitions Administration, General Administration, Health Services Administration, Public Administration, Human Resources Administration, Information Resource Management, International Administration, Hospitality and Tourism Administration, Leadership, Sport Administration, or Software Engineering Administration); or the Master of Arts degree in Education (with concentrations in Adult Education, Instruction, Humanities, or Coaching). Graduate certificates are offered in acquisitions, general, health services, human resources, international, public, software engineering, information resource management, hospitality and tourism, or leadership. Doctorate degrees are available online in Audiology or Health Administration.

Prior Learning Assessment Program

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

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

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

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

Planned Experiences

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

Distance/Distributed Learning

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

- Learning Packages (print-based)
- Online courses and workshops (via the Internet)

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

Program Operation

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

The typical procedure followed is to identify student needs, develop a schedule of courses, and counsel students into appropriate programs and time schedules. Continual liaison is maintained between off-campus programs and cooperating educational institutions, governmental agencies, professional associations, and nonprofit organizations.
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 the individual program plan each student must use as a guide to attainment of 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.

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. 3718.

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 are you looking for may be offered through Off-Campus programs. A variety of offerings are available for youngsters and high school students including swim school, 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, learnings 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. 7141.
General Academic Information

Classification of Students

A student is classified in accordance with the semester hours of credit earned as follows:

- Freshman: 1-25 semester hours of credit
- Sophomore: 26-55 semester hours of credit
- Junior: 56-85 semester hours of credit
- Senior: 86 or more semester hours of credit
- Graduate: After admission to CMU School of Graduate Studies

Classification is determined by the current Bulletin, not the issue in effect when the student was admitted.

Full-Time Status

The definition of full-time status for a regular semester is as follows:

- Undergraduate students: a minimum of 12 credits
- Graduate students: a minimum of 9 credits

Undergraduate Grading System

<table>
<thead>
<tr>
<th>Grades</th>
<th>Significance</th>
<th>Honors Points Per Semester Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior</td>
<td>4.0</td>
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<tr>
<td>A-</td>
<td></td>
<td>3.7</td>
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<tr>
<td>B+</td>
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<td>3.3</td>
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<tr>
<td>B</td>
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<td>D-</td>
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<td>0.7</td>
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<tr>
<td>E</td>
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<td>N</td>
<td>No grade submitted</td>
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<tr>
<td>NC</td>
<td>No Credit</td>
<td></td>
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<tr>
<td>I</td>
<td>Incomplete</td>
<td>Not included in computing hours and points</td>
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<td>W</td>
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<td>Audit</td>
<td></td>
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<tr>
<td>Z</td>
<td>Deferred Grade</td>
<td></td>
</tr>
<tr>
<td>H*</td>
<td>Honors Program</td>
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</tr>
</tbody>
</table>

*(Designates Honors Credit in combination with letter grade of C or better)

The marking system for CMU graduate students is described in the Graduate Bulletin.

Grade Point Average

The grade-point average for undergraduate students is found by dividing the total honor points earned by the total hours attempted.

Grade Reports

At the end of each on-campus semester or session students may listen to their grades on the STAR voice response system or access their grades via the web on OASIS (http://oasis.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.
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 with Honors faculty located in the same building and available for advising, teaching, and informal contact. 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.

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 online at http://academicsenate.cmich.edu/NonCad/ACADEMIC_INTEGRITY_POLICY.pdf.

Misrepresentation of Affiliation with the University
It is important to Central Michigan University, its students and alumni that academic and cocurricular work done by students while at the university be accurately and honestly presented. When individuals report their academic performance and/or involvement in university related activities it is expected that they will do so in a truthful manner. Anyone involved in misrepresentation of student coursework, grades, degrees earned and/or involvement with cocurricular organizations or other university related activities may be barred from future enrollment and/or graduation from Central Michigan University. Such activity may also be criminal and subject the person to prosecution.

Academic Probation, Suspension and Dismissal

Students with Academic Difficulties
Students at Central Michigan University have the responsibility to realize when they are having academic difficulties and to seek help as needed. Students are encouraged to seek assistance from their instructors, counselors or advisors, or the Academic Assistance Programs office.

When a student is not succeeding in a course, the instructor is encouraged to help correct the difficulty or make a referral. Instructors may report their concerns to the director of Academic Assistance Programs, who is available to assist in resolving difficulties.

Academic Probation Policy
At the end of each semester or summer session, a student whose cumulative grade point average falls within the range for the interval of credit hours shown in the following table is placed on academic probation. The range is determined by attempted hours or total hours, whichever is greater. Total hours includes credits earned at CMU as well as transfer credits or hours earned in any other manner.

<table>
<thead>
<tr>
<th>Attempted/ Total Hours</th>
<th>GPA Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-18</td>
<td>1.00-1.99</td>
</tr>
<tr>
<td>19-35</td>
<td>1.50-1.99</td>
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<tr>
<td>36-45</td>
<td>1.70-1.99</td>
</tr>
<tr>
<td>46-58</td>
<td>1.80-1.99</td>
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<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 Assistance Program office. A written appeal and a personal interview, and payment of the Rematriculation Application Fee are required, following the procedures outlined under Rematriculation in the Admissions section of the Bulletin.

Academic Dismissal Policy

A student is subject to academic dismissal if his or her point average falls below the point average range for probation, or when the student has been on academic probation for three consecutive semesters and has not made strong academic gains.

The university reserves the right to cancel the matriculation of a student at the end of any session when his or her total record indicates that such action is desirable. Likewise, a student whose total record shows considerable ability and marked improvement may be given special consideration.

The university notifies students whose matriculation is cancelled.

No student whose matriculation has been cancelled, or would have been cancelled had he or she been a student at the university, can enroll again unless readmitted. Consideration for rematriculation will be given to dismissed students only after an absence of one academic year or more. Students may apply for readmittance to the Committee on Rematriculation, in care of the Director of Academic Assistance Programs. A written application, a personal interview, and payment of the Rematriculation Application Fee are required. This procedure is outlined under Rematriculation in the Admissions section of the Bulletin.
Academic Policies and Procedures

Advanced Standing
Advanced Placement Program (AP)
College-Level Examination Program (CLEP)
Proficiency Examination Program (PEP)

Students may be granted credit at CMU by earning high scores on specified AP, CLEP, International Baccalaureate, and PEP examinations. CMU has selected the scores necessary for credit with a primary concern that students receiving credit will have sufficient preparation for subsequent coursework in the area of study. Thus, scores required by CMU may be higher than minimum recommended levels for other organizations.

In the following list, each approved AP examination is paired with the CMU course in which credit is granted for a minimum score of three. The courses on this list have been approved by individual academic departments and are subject to change. Art (General Studio) - three hours Art credit; Art (History) - ART 185; Biology - BIO 101; Calculus AB - MTH 132; Calculus BC - MTH 132 and MTH 133; Computer Science A - CPS 150; Computer Science AB - CPS 181; Cultures of the World - GEO 121; English Language and Composition OR English Composition and Literature - ENG 101; Government and Politics (U.S.) - PSC 105; Government and Politics (Comparative) - PSC 242; Physics B - PHY 130 and 131; Physics C (Part I) - PHY 145, Physics C (Part II)* - PHY 146; Psychology - PSY 100, Statistics - STA 282. Students earning a four or five on the statistics exam will receive credit for STA 382. Students will receive credit for the history examinations as follows: History (American): HST 111 (score of four), HST 111 and 112 (score of five); History (European): HST 102 (score of four), HST 101 and 102 (score of five). Students will receive credit for the Chemistry examinations as follows: CHM 131 (score of three or four), CHM 131 and 132 (score of five), 5. Students passing the French, German, Latin, or Spanish Language examination receive credit in the CMU 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 five 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 Language - ENG 235 and 236; General Biology - BIO 101; General Chemistry - CHM 131 (plus CHM 132 if score is at or above 85th percentile); Introduction to Management - MGT 312; Introductory Psychology - PSY 100; Introductory Accounting - ACC 201; Introductory Sociology - SOC 100; Principles of Marketing - MKT 300; Trigonometry - MTH 106. Additionally, the College French, German or Spanish (Levels 1 and 2) examinations may be used to gain credit in French, German or Spanish courses numbered 101, 102, 201, OR 202. General credit may be earned on the CLEP Humanities General examination and/or the CLEP Social Sciences and History examination.* Credit earned through the CLEP Humanities General Examination and the CLEP Social Sciences-History General Examination may NOT be used to satisfy University Program requirements.

Three hours credit in ENG 101 will be granted for a score of four or higher on the International Baccalaureate English, Language A examination at either the higher or the subsidiary level.

Credit may be earned in GEL 101 for a score at the eightieth percentile on the PEP Physical Geology examination.

Further information on the CLEP program is available in the Computer-based and Placement Testing Center (CBPTC) located in the lower level of Robinson Food Commons. Contact Undergraduate Academic Services, Warriner Hall, for information concerning AP, PEP, and the International Baccalaureate.

* See the CBPTC for an updated list of cutoff scores on individual exams.

Auditing a Course

A CMU student interested in taking an undergraduate course on an audit basis must obtain, prior to registration, the approval of the department chairperson offering the course. An Approval to Audit Request Card, signed by the student and the department chairperson, must be filed in the registrar’s office or Student Services Court by Friday of the third week of class.

No credit is granted for a course being audited, but such credit as the course normally would carry is included as part of the student’s total load, and fees are assessed accordingly. No change from regular registration to audit, or from audit to regular registration is permitted after the published deadlines.

The student’s responsibility to the class being audited is determined by the department chairperson and the instructor of the class.

Change of Grade

A request to change a grade may be requested by an instructor by filing a “Change of Grade Request Card” with the chairperson of the department. The chairperson will forward the request to the dean of the college.

Requests for change of grade involving error by an instructor -- such as error in recording grade, transpositional error, error in transferring grade to Final Grade List, miscalculation, computational error, error in scoring final exam, test or assignment grade not recorded, papers misplaced by instructor and found after grade was recorded, error in graduate assistant or lab assistant reporting grade to grading instructor, or instructor forgetting that a student had been promised an “I” grade—shall be processed by the Office of the Registrar 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 Office of the Registrar for processing.

“Change of Grade Request Cards” may be obtained by faculty members from either the department chairperson or the registrar’s office.

Correspondence Courses

Completed correspondence courses carry the same amount of credit and points as those taken on campus.

Correspondence credit may not apply toward requirements for a continuing certificate, renewal of a provisional certificate, or conversion of a provisional or continuing certificate. A maximum of 15 semester hours of correspondence credit may be applied toward a baccalaureate degree. Semester hours earned through correspondence courses do not apply to meet any of the hours required in residence.
Course Substitution

Every student is expected to take the required work prescribed for the degree plan he or she is following. It is sometimes necessary, however, to make substitutions, especially in the case of students who have not been in attendance for several years or who have transferred from other colleges. The following govern such deviations:

**Degree Substitution.** Substitution for a specific course prescribed on a particular degree, except as noted below, will be processed only when (1) approved by the chairperson of the department offering the course and (2) certified by the chairperson to the registrar on an Application for Substitution form. No substitution may be made for courses comprising the University Program or competency requirements portions of the student’s degree requirements.

**Change In Authorization for Major or Minor.** Change of a required course on an authorized major or minor will be processed only (1) when approved by the student’s departmental advisor who previously signed the authorization, and (2) when certified by the advisor to the registrar on a “Change In Authorization for Major or Minor” form. The departmental chairperson shall authorize changes in the absence of the departmental advisor.

Substitution and change of authorization forms are available at the registrar’s office.

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 Office of the Registrar, 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 Office of the Registrar.

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. It is possible to earn credit for prior learning. For further information, contact the Registrar’s Office, 212 Warriner, 774-3261.

Undergraduate Credit/ No Credit Policy

An undergraduate student may take courses on a Credit/No Credit basis subject to regulations summarized here. The option is elected by submitting an Undergraduate Credit/No Credit Request Card to the Registrar’s Office before the published deadline.

The instructor is not notified when a course is taken credit/no credit and so assigns the student a letter grade. The grade is automatically converted to credit or no credit according to the following guidelines. The student earns credit (CR) for the course and credit toward graduation when a grade of C or better is assigned. No credit (NC) is earned when the assigned grade is C-, D+, D, D-, or E. The course appears on the student’s permanent record with the CR or NC grade, but the grade has no effect on the grade point average.

Departments designate which of their courses may be taken on a credit/no credit basis and whether such credit may be applied to a major or a minor. A department may offer certain courses exclusively on a credit/no credit basis after approval by the appropriate curricular authorities and publication in the University Bulletin.

A maximum of 25 semester hours of credit earned under the credit/no credit option may be applied toward an undergraduate degree. Courses exclusively offered on this basis are not included in the 25-hour restriction. Students may not take more than two courses or 7 hours for credit/no credit in the University Program.

Procedures and deadlines for registering for courses on a credit/no credit basis can be found in the current Class Schedule booklet. A student who officially elects the credit/no credit option for a course may not change the registration to a letter grade designation after the deadline.

Regulations for graduate credit/no credit offerings are to be found in the Bulletin of the College of Graduate Studies.

Prior Learning Assessment Credit

Undergraduate students may apply for credit for past personal and professional experiences which have resulted in the attainment of college-level competencies. Academic credit may be awarded for learning resulting from career and personal experiences; job-related activities; extensive hobbies, travel and foreign residency; community service; and training received through on-the-job instruction, self-study, or specialized schooling. To be applied to a program plan, prior learning must be directly related to the degree being pursued. Credit from prior learning may not be used to meet any University Program or Competency requirement. For more information, contact the Prior Learning Assessment secretary at 774-7126.

Non-Degree Courses

Courses numbered (DESIGNATOR) 589 - Professional Development (1-6) do not apply to degree requirements. These courses cover selected issues designed for professional development, in-service training to meet specific staff development needs in education, business/industry, allied health, technology, and other professional settings. They are not applicable to degree requirements.

Undergraduate Appeal Process

An undergraduate student may request a review of the following through an appeal:

1. Course substitution or other modification of the University Program and competency requirements
2. Individual course transfer
3. Extension of bulletin
4. Graduation or degree requirements

Information concerning filing an appeal is available through the Academic Senate Office located in the Bovee UC 108.
Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 (FERPA) affords students certain rights with respect to their educational records. They are:

1. The right to inspect and review the student's educational records within 45 days of the date the University receives a request for access. Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University officials will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's educational records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights. Students may ask the University to amend a record they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identifying the part of the record they want changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedure will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosures without consent. One exception which permits disclosure without consent is disclosure to University officials with legitimate educational interest and/or needs to review an educational record in order to fulfill his or her professional responsibility. A University official for the purpose of this policy is defined as follows:

- members of the faculty;
- members of the professional, executive, and administrative staff, excluding any member of the Central Michigan University Police Department;
- students, when properly appointed as members of a hearing panel or screening committee;
- representatives of the State Auditor General when performing their legal function;
- a person or company with whom the University has contracted (e.g., attorney, auditor, or collection agent) but limited to only the specific student information needed to fulfill their contract;
- others as designated in writing by the President, a University Vice President, or Dean.

Upon request, the University discloses educational records without a student's consent to officials of another school in which a student seeks to enroll. Another exception which permits disclosure without consent is when the information consists solely of "Directory Information." Directory information may be published or released by University faculty and staff at their discretion. Unless a student specifically directs otherwise, as explained more fully in paragraph (4) below, Central Michigan University designates all of the following categories of information about its students as "Directory Information":

a. name, campus address, home address, telephone listing, and campus e-mail;

b. state of residence;
c. age, date, and place of birth;
d. major field of study, including the college, department, or program in which the student is enrolled;
e. classification as a freshman, sophomore, junior, senior, or graduate student;
f. enrollment status (full-time, half-time, less than half-time);
g. participation in officially recognized activities and sports;
h. weight and height of members of athletic teams;
i. dates of attendance and graduation, and degrees received;
j. the most recent educational institution attended;
k. honors and awards received, including selection to the Dean's or President's list, honorary organization, or the GPA range for the selection.

4. A student has the right to refuse the designation of all categories of personally identifiable information listed above (a. through j.) 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.

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1. If the instructor of the course is a member of the Committee, he/she shall be disqualified from the consideration of that appeal.

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Incompatible and Deferred Grade

Incomplete Grade. I (Incomplete) is a temporary grade used by the instructor in cases when a student is unable to complete course requirements because of illness or other justifiable circumstances. It is assigned only in cases in which the student has completed satisfactorily the major portion of the course requirements, and has convinced the instructor of his or her ability to complete the remaining work without re-registering for the course. It is not to be given to a student who is already doing failing work. A form must be completed and signed by the faculty member (and the student, when possible) whenever a grade of I is assigned. The form is to be kept on file in the departmental office. An instructor who assigns a grade of I also submits a formal statement to the department chairperson of requirements to be satisfied for removal of the Incomplete grade. A copy of the statement of requirements, including deadlines for their completion, shall be made available to the student.

It is the student’s responsibility to contact the instructor to make arrangements for completing the remaining work. The required work should be completed and a grade reported by the end of the student’s next semester in residence, but in no case later than one calendar year following the receipt of the I. A student not completing the remaining work by the end of one calendar year following the receipt of an I would retain an I only if the instructor chooses not to change the I to a specific grade ranging from A to E by the end of the calendar year. An I (Incomplete) may not be removed by registering again for the course.

If the instructor of the class in which the I was incurred is no longer a member of the faculty, the student should contact the department chairperson, who shall act on behalf of the former instructor.

Exceptions to these regulations can be made only when requested by the student and approved by the instructor or the department chairperson and the dean of the college, and certified by the dean of the college to the registrar.

Deferred Grade. The Z (deferred grade) may be recorded for students registered for independent study, for thesis, International Program Studies courses, or for other courses specifically approved for Z grades in the Bulletin, if the instructor believes that the quality and quantity of work completed by the end of the semester justifies an extension of time. An instructor who assigns a grade of Z shall submit, on the proper form, a statement to the department chairperson of remaining requirements for removal of the deferred grade. A copy of the statement of requirements, including deadlines for their completion, shall be made available to the student.

Recomputation of Grade Point Average

An undergraduate student may petition for recomputation of his or her cumulative grade point average if:

1. the student has not attended CMU or any other institution for four or more consecutive years, and
2. the student re-enters after his or her matriculation was canceled or after withdrawing voluntarily with a cumulative grade point average under 2.00 (academic probation).

A petition form for recomputation may be obtained from the Academic Assistance Programs office. This policy may apply to students presently enrolled at CMU.

If the petition is approved, all courses taken will remain on the permanent record. Those courses with grades of A, A-, B+, B, B-, C+, C, C-, or CR will be counted for credit only. The student resumes his or her academic program at CMU with no cumulative grade-point average, and thereafter is subject to the conditions of probation and dismissal that govern all students. A student may not graduate from Central Michigan University under this policy unless he/she earns at least 12 semester hours of credit at this institution after the recomputation has been granted.
Undergraduate Repeat Course Policy

Undergraduate students may 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 card with the Registrar’s Office by the deadline date. This will ensure that the repeat will be noted and will be included in the current semester calculations.
4. A student repeating a CMU course at another college/university must earn a higher grade than their original attempt for the course to transfer. Honor points will not transfer but the previous CMU honors points will be removed in computing the average.
5. A course taken after a student graduates will not change the previously attempted grade or credit hours.
6. A student is limited to 3 attempts of a course. This includes repeats where they have earned a grade of A through E, or attempts where they were awarded grades of CR, NC, I, W, Z, or X.
7. This limitation does not apply to independent study and similar courses for which course content varies significantly with each offering. (Often these are courses with variable credit hours.).
8. For exceptions to this limitation policy, a student may appeal to the Chairperson of the department offering the course.

Transcripts

A student desiring an official transcript of his or her record from this university should submit a written, hand-signed request to the Office of the Registrar, CMU, 212 Warriner Hall, Mt. Pleasant, MI 48859. Letter requests should include name, address, daytime phone number, 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, however, we are unable to FAX out a transcript. Our FAX number is (989) 774-3783.

Ordinarily, transcripts are processed in one to three days. Priority service is available by specifically requesting the priority service and paying an $10.00 priority charge. Priority requests will be prepared in time for the next outgoing mail. Priority transcripts requested in person will be prepared immediately.

Students may request that official transcripts be sent directly to them, but most businesses and educational institutions will accept as official only those transcripts sent directly to them by the issuing institution. Official transcripts sent directly to the student will be stamped “issued to student.”

Transcripts of students with a past due financial obligation to the university are not released until the obligation is paid.

Transfer Credit Policy

I. Transfers from Accredited Schools and Foreign Institutions.

Undergraduate courses from another college or university which is accredited by one of the regional institutional accrediting associations or from a foreign university or college approved by the government or the official regulating agency of the country in which the university or college is located will be considered for transfer credit at Central Michigan University, subject to the following conditions:

1. Courses must be germane to a program at Central Michigan University.
2. Transferable courses completed with a grade of C- or better 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.
3. Credits from foreign institutions will be accepted using the guidelines developed by the World Education Services of American Association of Collegiate Registrars and Admissions Officers, and in consultation with affected departments.
4. Grades and honor points are not transferable to or recorded on the CMU permanent record.
5. Acceptability of transfer coursework to fulfill CMU major or minor requirements is at the discretion of the individual department.

II. Transfers from Non-Accredited Schools.

A student who has earned credit or a baccalaureate degree from an institution which is not accredited by one of the regional accrediting associations may appeal through the Board of Appeals who may consult with the individual departments for an exception to the above policy for up to a maximum of 62 credits. Before accepting such credit for transfer credit consideration, the Board of Appeals will consult with the individual departments. If a positive decision results, transfer credit may then be granted subject to the same conditions that apply to transfers from accredited schools.

III. Exceptions.

Academic units may request an exception to the Regional Accreditation portion of this policy from the Degrees, Admissions, Standards and Honors Committee.

IV. Military Training and Experience.

A. Military Service School Experiences.

Granding 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 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.

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 Office of the Registrar.

The Office of the Registrar 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 Office of the Registrar 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 Office of the Registrar 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 appear to be suffering from a mental disorder to assist them in functioning effectively within the university environment. The Dean of Students or designee may refer a student who appears to be suffering from a mental disorder to the Behavioral Evaluation Team when the student:

a. engages, or threatens to engage, in behavior which poses a danger of causing physical harm to self or others, or

b. engages, or threatens to engage, in behavior which would cause significant property damage, or directly and substantially impedes the lawful activities of others.

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 given a copy of the Administrative Procedures for Behavioral Evaluation Team. Copies are also available in the Office of Student Life, University Center 111.

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. Payment of a graduation fee is required.
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 (p. 74). 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 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.
   - To be assured of receiving an audit of remaining undergraduate requirements prior to the beginning of your last semester, a student must file this application no later than September 15 for May graduation, January 15 for August graduation, and April 15 for December graduation.
   - The application fee is $35.00. For additional information call (989) 774-3504.

Conferring of Degrees
Candidates completing requirements for a degree in December or May will participate in their respective commencement ceremonies. Candidates completing requirements for a degree in August will be invited to participate in the December commencement ceremony. Diplomas will be mailed to all students on the graduation list who satisfactorily complete all graduation requirements.
Two Degrees

A student may apply for a second baccalaureate degree from Central Michigan University if the degrees are different and the pertaining criteria are met.

To earn two baccalaureate degrees from Central Michigan University at the same time, a student must:
1. Satisfy all requirements for each of the two degrees, including graduation and degree requirements.
2. Present a minimum of 154 semester hours of acceptable credit.
3. Present a minimum of 60 semester hours from Central Michigan University, of which at least 30 hours must have been earned on campus.

To earn a second baccalaureate degree from Central Michigan University after having earned the first degree, a student must:
1. Satisfy all requirements for the second degree, including graduation and degree requirements.
2. Present a minimum of 30 semester hours of credit from Central Michigan University beyond those required for the first degree. The additional hours need not be taken after completion of requirements for the first degree.
3. Present a minimum of 60 semester hours from Central Michigan University, of which at least 30 hours must have been earned on campus.

To earn a second baccalaureate degree after earning the first degree at another regionally accredited, four-year, degree-granting institution or from a foreign university or college approved by the government or the official regulating agency of the country in which the university or college is located, a student must:
1. Satisfy all requirements for the second degree, including graduation and degree requirements.
2. Present a minimum of 30 semester hours of additional credit from Central Michigan University, of which at least 15 hours must have been earned on campus.

Degree Program for Pre-professional Students

A degree program for students on a combined pre-professional program at Central Michigan University and an accredited professional school has been approved as follows:

A student who has pursued a pre-professional course at Central Michigan University for a period of three years, and completed a minimum of 94 semester hours of credit prior to entering a professional school, and completed a B.A. or B.S. degree, with a major and minor as authorized, will be allowed to graduate from Central Michigan University by submitting one year of satisfactory work consisting of not less than 30 semester hours from a professional school accredited by the North Central Association or by the official accrediting agency for the professional school.

Requirements for Short Course Certificates

The candidate for a short course certificate shall:
1. matriculate as a regular student;
2. present the credits indicated for such certificate;
3. have satisfactorily completed at least one-fourth of the credit required for the certificate in residence on campus,
4. have earned five of the last 15 hours of credit at this institution in on- or off-campus courses, and
5. present a cumulative grade point average of 2.00 or higher.

Outstanding Scholarship Recognition

The university recognizes the importance of high scholarship and seeks to stimulate and encourage students in high achievement.

SEMESTER RECOGNITION. The Dean's List is published by the Dean of Students after each semester naming students who have achieved a high scholastic standing for that semester. To qualify for this recognition a student must meet all of the following conditions:
1. have registered for and completed 12 or more letter-graded hours of CMU credit during the semester; and
2. have earned a semester grade point average of 3.50 or higher.

The President's List honors those students on the Dean's List who achieved a 4.00 semester grade point average.

Graduation with Honors. In order to be graduated with honors a student must have, at the beginning of his or her last required session, a total cumulative point average at Central Michigan University as indicated in the following table and must at that time have completed 45 hours of residence of which 33 hours must be letter-graded credit.

<table>
<thead>
<tr>
<th>Point Average</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.90-4.00</td>
<td>Summa Cum Laude</td>
</tr>
<tr>
<td>3.75-3.89</td>
<td>Magna Cum Laude</td>
</tr>
<tr>
<td>3.50-3.74</td>
<td>Cum Laude</td>
</tr>
</tbody>
</table>

APPEAL PROCESS FOR GRADUATION WITH HONORS. A student who has attained, at the end of his or her final semester, 45 hours of residence of which 33 hours are letter-graded credit and has a GPA that now gives him or her honors or a higher honors classification may appeal for this new honors classification. The student must complete a Graduation Honors Appeal Form and a Diploma Replacement Form and submit the established fee to Undergraduate Academic Services. A student must appeal no later than the Friday before the next commencement following his or her graduation.
Standards Leading to Teacher Certification

Introduction

Students seeking to enter the Teacher Education program at Central Michigan University are screened using multiple criteria related to teacher excellence and the CLEAR model for teacher education. The selection criteria assess characteristics appropriate for students pursuing a professional teaching practice that is Content– or knowledge– driven, LEArner– centered and Reflective/ Relevant to the multiple roles and contexts of the professional educator. Once a student is admitted, cognitive and affective skills are both developed and monitored throughout the teacher education experience, which stresses faculty mentoring of all prospective teachers.

Excellent teachers demonstrate an interest in students, an ability to relate to and communicate with diverse students in varied ways, as well as the ability to motivate and facilitate learning. Teacher candidates at CMU must be learner–centered and able to communicate both in writing and in face–to–face interactions with spontaneity and clarity. The student’s aptitude for, attitudes toward, and interests in teaching, as well as his or her interpersonal skills such as empathy, rapport, and listening are assessed through a structured interview process.

Academic knowledge is reflected by an overall grade point average that includes a minimum 2.7 grade point average in each teaching major and minor. Additionally, students are required to attain a C+ (2.3) or better in the professional and methods courses and a B in the introductory course.

Students may apply for admission into the Teacher Education program when they have completed at least 60 credit hours of post–secondary coursework or immediately upon transferring to CMU.

Undergraduates and Graduates of regionally accredited institutions must provide transcripts from all educational institutions attended to the EHS Center for Student Services at the time of application.

The three–cycle process leading to teacher certification is summarized below. 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.

The Three Cycles of Candidacy

Cycle I: Admission Candidacy

Each student who expects to earn either an Elementary Provisional Certificate or a Secondary Provisional Certificate must file an application for entry into teacher education. Application forms and related information are found in the Teacher Education Student Handbook available at the Bovee University Center bookstore.

Cycle I is a two–part process, acceptance for candidacy status and admission to the teacher education program. Upon completion of all requirements for Cycle I, the student will be placed on a list that is ranked in order by composite scores. Admission to teacher education will occur twice a year, once in September and once in February, and will be based upon the student’s composite score. When enrollment has to be limited in teacher education, rank order scores will be used to determine admission to the program. Therefore, students who have met all requirements for admission may not be admitted if their composite scores are not sufficiently high to be above the cutoff score.

Students must be admitted to the teacher education program before being eligible to enroll in professional education courses that have “admission to teacher education” as a prerequisite. Admission to the program is valid for five years from the date of admission to teacher education. Changes mandated by the Michigan Department of Education may become effective at any time in a student’s education program.

Cycle II: Continuing Candidacy

This point in the teacher education program has been established as a method to verify candidates’ ongoing growth and development in the teacher education program. By fulfilling all competencies listed in the EHS Teacher Education Student Handbook and Student Teaching Handbook, candidates are eligible to continue in the program and move to their student teaching experiences. Cycle II includes, but is not limited to items such as departmental approval of all majors and minors, 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.

Application to Teacher Education Fee

Education students are required to pay a one–time, non–refundable Application to Teacher Education Fee. The $50.00 fee is used to help cover the cost of application and certification processing. This fee must be paid at the Student Services Court in the lower level of the Bovee University Center. A copy of the receipt must be submitted by the student to the EHS Center for Student Services prior to the date when your application materials are due. For more information about the Application to Teacher Education Fee, please contact the EHS Center for Student Services at 774–3309.

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.
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.

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 continuing 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 EHS Center for Student Services 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 eighth in a self-contained classroom. It is valid for six years and may be renewed for three years, provided the applicant presents ten 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 seven 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 ten 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 Certificate

Professional Education Certificate: The Elementary or Secondary Professional Education Certificate may be issued to a candidate who has met the following requirements:

1. Has taught successfully for three years, according to the validity of his or her provisional certificate.

2. Has presented evidence that he or she has completed 18 semester hours in a program 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.

3. To reinstate an expired Professional Education Certificate, a person shall apply to the State Department of Education for a Professional Education Certificate if his or her qualifications are found satisfactory.

4. Record issuance of the Professional Education Certificate on the student’s permanent record when notified by the State Department of Education.

Professional Education Certificate Renewal

1. A Professional Education Certificate is valid for 5 years and shall be renewed at the end of the 5-year period for an additional 5 years upon the applicant’s completion of 6 semester hours of academic credit from an approved teacher preparation institution, or the submission of evidence of the equivalent in continuing education units completed through professional development programs or professional activities defined and approved by the State Board. Submission is made to the Michigan Department of Education. 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.

2. 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.

3. 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.

Procedures for Professional Education Certification

The Candidate Shall:

1. Submit a planned program of study beyond the bachelor’s degree signed by the advisor and candidate.

A. If the candidate has been admitted to a master’s degree program, he/she may submit a copy of the Authorization of Graduate Degree Program, signed by the advisor, with the application as evidence that the student is pursuing a “planned course of study beyond the bachelor’s degree.”
Degree Requirements

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 81
- University Program, page 102
- Competency Requirements, page 107
- Additional General Education for Teacher Certification, page 108
- Requirements for Graduation, page 76
- Undergraduate Majors and Minors, page 109

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 78). 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 pages 110-112.

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.
Bachelor of Arts Degree (B.A.)

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 Semester Credit Hours**

- University Program Requirements (27 - 30 hours): See pages 102 - 106.
- Competency Requirement (3-12 hours): See pages 107 - 108.

**Other Degree Requirements - 45-61 Semester Credit 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.

*Choose from these disciplines:* American Studies (AMS), Art (ART), English (ENG), French (FRN), German (GER), Greek (GRK), Humanities (HUM), Japanese (JPN), Latin (LAT), Music (MUS), Ojibwe (OJB), Philosophy (PHL), Religion (REL), Russian (RUS), Spanish (SPN).

*These courses also fulfill area 1 requirements:*
- Broadcast and Cinematic Arts - BCA 288, BCA 290, BCA 300, BCA 503.
- Honors - HON 110, HON 130.
- Theatre and Interpretation - TAI 170, TAI 175, TAI 182, TAI 282, TAI 305, TAI 306, TAI 307, TAI 308, TAI 313, TAI 315, TAI 371, TAI 373, TAI 376, TAI 377, TAI 380, TAI 382, TAI 460, TAI 477, TAI 481, TAI 490, TAI 569, TAI 570, TAI 571, TAI 572, TAI 573, TAI 574, TAI 575, TAI 577, TAI 578, TAI 579, TAI 584, TAI 585, TAI 586, TAI 588, TAI 589, TAI 590.

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.

*Choose from these disciplines:* Astronomy (AST), Biology (BIO), Chemistry (CHM), Earth Science (ESC), Geology (GEL), Mathematics (MTH), Physical Science (PHS), Physics (PHY), Sciences (SCI), Statistics (STA).

These courses also fulfill area 2 requirements:
- Communication Disorders - CDO 334, CDO 335.
- Honors - HON 140.
- Human Environmental Studies - HEV 361, HEV 370, and HEV 473.
- Physical Anthropology ANT 171, ANT 173, ANT 244, ANT 342, ANT 347, ANT 351, ANT 356

**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.

*Choose from these disciplines:* Anthropology (ANT, except Physical Anthropology), Economics (ECO), Geography (GEO), History (HST), Political Science (PSC), Psychology (PSY), Sociology (SOC).

These courses also fulfill area 3 requirements:
- Communication Disorders - CDO 130, ASL 101
- Honors - HON 120
- Human Environmental Studies - HEV 100, HEV 111, HEV 212, HEV 252, HEV 306, and HEV 510.

**Specialized Studies - 30-66 Semester Credit Hours**

**Major:** Any university approved major except the Communication Disorders major, Health Administration 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 Semester Credit 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Applied Arts Degree (B.A.A.)

This degree indicates achievement in one or more areas of applied knowledge.

**General Education Requirements - 30-42 Semester Credit Hours**

- **University Program Requirement (27 - 30 hours):** See pages 102 - 106.
- **Competency Requirements (3-12 hours):** See pages 107 - 108.

**Specialized Studies - 50-100 Semester Credit Hours**

**Major** in one of the following fields (30-72 hours):
- Athletic Training/Sports Medicine (ATR),
- Apparel Merchandising and Design (HEV),
- Art (ART),
- Broadcast and Cinematic Arts (BCA),
- Child Development (HEV),
- Communication Disorders (CDO),
- Entrepreneurship (ENT),
- Family Studies (HEV),
- Food Service Administration (HEV),
- Health Administration (HSC),
- Health Fitness in Preventive and Rehabilitative Programs (HSC),
- Industrial Technology Management (IET),
- Interior Design (HEV),
- Integrative Public Relations (IPR),
- Interpersonal and Public Communication (IPC),
- Public Health Education and Health Promotion (HSC),
- Recreation (RPL),
- Sport Studies (PES),
- Women’s Studies (WST).

**Minor** in any university approved minor or internship (20-30):
Internship must be sponsored by the department of the major. Administration and registration may be through related disciplines but the responsibility of the internship requirements, parameters, etc., must be that of the department of the major.

Note: Certain majors require a particular minor or one chosen from a list of acceptable minors. See departments for major requirements.

**No more than 8 hours of electives taken from the same department as the student’s major will count towards graduation requirements.**

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.

**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 Semester Credit 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 27 hours may be taken from the College of Business Administration and counted towards graduation on this degree.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
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 Semester Credit Hours**

- University Program Requirements (27-30 hours): See pages 102-106.
- Competency Requirement (3-12 hours): See pages 107-108.

**Specialized Studies - 70-78 Semester Credit Hours**

Select either Alternative A or Alternative B or Alternative C.

- **Alternative A: Professional (78 hours)**
  
  *Major*: Art.

- **Alternative B: General (70 hours)**
  
  *Major*: (30-45 hours) in either Broadcast and Cinematic Arts (BCA) or Theatre and Interpretation (TAI).
  
  Fine Arts Electives: (25-40 hours) outside the major, authorized by the major advisor.
  
  *Minor*: optional.

- **Alternative C: Music Theatre Major (70 hours)**

**Electives**

The number of elective hours will vary depending upon the requirements for the major.

**Minimum Total for Graduation - 124 Semester Credit 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Individualized Studies Degree
(B.I.S)

This degree is designed for those students whose goals and objectives require more flexibility than is provided by the more conventional structured programs. In consultation with an advisor the student plans an academic program which must be submitted to the Committee on Individualized Studies for approval. This degree may not satisfy requirements for admission to some graduate programs or for professional employment.

General Education Requirements - 30-42 Semester Credit Hours

- University Program Requirements (27-30 hours): See pages 102-106.
- Competency Requirements (3-12 hours): See pages 107-108.

Area Studies - 18 Semester Credit 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 - 64-73 Semester Credit Hours

Minimum Total for Graduation - 124 Semester Credit 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.

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 is available from the B.I.S. program advisor. Please consult the “Class Schedule” published each semester for the advisor’s name and office location, or call the Academic Senate office, (989) 774-3350. The advisor also supplies forms for applying for preliminary and final approval for the degree program.
Bachelor of Music Degree (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 Semester Credit Hours**
- University Program Requirements (27-30 hours): See pages 102-106.
- Competency Requirements (3-12 hours): See pages 107-108.

**Specialized Studies - 89 Semester Credit Hours**
**Major:** Music, with concentration in one of the following:
- Orchestral Instruments
- Organ
- Piano
- Theory/Composition
- Voice

Electives
The number of elective hours will vary depending upon the hours completed in General Education.

Minimum Total for Graduation - 124 Semester Credit 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: Some concentrations 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.

Bachelor of Music Education Degree (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.

**General Education Requirements - 30-42 Semester Credit Hours**
The Michigan State Board of Education requires a minimum of 40 hours of General Education for certification.
- University Program Requirements (27-30 hours): See pages 102-106.
- Competency Requirements (3-12 hours): See pages 107-108.

**Specialized Studies - 70 Semester Credit Hours**
- **Major:** Music - Music Education (40 hours)
- **Minor:** Music - Instrumental or Music - Choral (30 hours)

**Minimum Total for Graduation - 134 Semester Credit 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.

**Other Degree Requirements - 0-10 Semester Credit Hours**
Courses selected outside the major or minor.

**Professional Education Requirements - 25 Semester Credit Hours**
EDU 107 (3) Introduction to Teaching
EDU 310 (3) Psychological Foundations of Education
EDU 450 (3) Content Area Literacy
EDU 495 (3) Foundations of Education
EDU 432 (3) Senior Seminar in Secondary Education
EDU 458 (10) Secondary Student Teaching

Read carefully the section on Standards Leading to Teacher Certification, page 78 for additional requirements.
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 are available on the Bachelor of Science degree.

Plan A

General Education Requirements - 30-42 Semester Credit Hours

- University Program Requirements (27-30 hours): See pages 102-106.
- Competency Requirements (3-12 hours): See pages 107-108.

Other Degree Requirements - 24 Semester Credit Hours

Area Requirements

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

(Alternative A - 6 hours, Alternative B - 6 hours)

Choose from these disciplines: American Studies (AMS), Art (ART), English (ENG), French (FRN), German (GER), Greek (GRK), Humanities (HUM), Japanese (JPN), Latin (LAT), Music (MUS), Ojibwe (OJB), Philosophy (PHL), Religion (REL), Russian (RUS), Spanish (SPN).

These courses also fulfill Area 1 requirements:
- Broadcast and Cinematic Arts - BCA288, BCA290, BCA300, BCA503.
- Honors - HON 110, HON 130.
- Theatre and Interpretation - TAI 170, TAI 175, TAI 182, TAI 282, TAI 305, TAI 306, TAI 307, TAI 308, TAI 313, TAI 315, TAI 371, TAI 373, TAI 376, TAI 377, TAI 380, TAI 382, TAI 460, TAI 477, TAI 481, TAI 490, TAI 569, TAI 570, TAI 571, TAI 572, TAI 573, TAI 574, TAI 575, TAI 577, TAI 578, TAI 579, TAI 584, TAI 585, TAI 586, TAI 588, TAI 589, TAI 590.

Area 2 - Natural Sciences

(Alternative A - 12 hours, Alternative B - 6 hours)

Choose from these disciplines: Astronomy (AST), Biology (BIO), Chemistry (CHM), Earth Science (ESC), Geology (GEL), Mathematics (MTH), Physical Science (PHS), Physics (PHY), Sciences (SCI), Statistics (STA).

These courses also fulfill Area 2 requirements:
- Communication Disorders - CDO 334, CDO 335.
- Health Promotion and Rehabilitation - HSC 211, HSC 214, HSC 215.
- Honors - HON 140.
- Human Environmental Studies - HEV 361, HEV 370, and HEV 473.
- Physical Anthropology - ANT 171, ANT 173, ANT 244, ANT 342, ANT 347, ANT 351, ANT 356.

Area 3 - Social Sciences

(Alternative A - 6 hours, Alternative B - 12 hours)

Choose from these disciplines: Anthropology (ANT, except Physical Anthropology), Economics (ECO), Geography (GEO), History (HST), Political Science (PSC), Psychology (PSY), Sociology (SOC).

These courses also fulfill Area 3 requirements:
- Communication Disorders - CDO 130, ASL 101.
- Honors - HON 120.
- Human Environmental Studies - HEV 100, HEV 111, HEV 212, HEV 252, HEV 306, and HEV 510.

Specialized Studies - 30-71 Semester Credit 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 Total for Graduation - 124 Semester Credit 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Science Degree (B.S.)

This degree indicates significant exploration and achievement in the liberal arts, including humanities but with an emphasis on natural or social sciences.

Plan B

General Education Requirements - 30-42 Semester Credit Hours

- University Program Requirements (27 - 30 hours): See pages 102 - 106.
- Competency Requirements (3-12 hours): See pages 107 - 108.

Other Degree Requirements - 18 Semester Credit Hours

Area Requirements

Six hours in each of the Humanities, Social Sciences, and Natural Sciences areas. 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)

Choose from these disciplines: American Studies (AMS), Art (ART), English (ENG), French (FRN), German (GER), Greek (GRK), Humanities (HUM), Japanese (JPN), Latin (LAT), Music (MUS), Ojibwe (OJB), Philosophy (PHL), Religion (REL), Russian (RUS), Spanish (SPN).

These courses also fulfill Area 1 requirements:
- Broadcast and Cinematic Arts - BCA 288, BCA 290, BCA 300, BCA 503.
- Honors - HON 110, HON 130.
- Theatre and Interpretation - TAI 170, TAI 175, TAI 182, TAI 282, TAI 305, TAI 306, TAI 307, TAI 308, TAI 313, TAI 315, TAI 371, TAI 373, TAI 376, TAI 377, TAI 380, TAI 382, TAI 460, TAI 477, TAI 481, TAI 490, TAI 569, TAI 570, TAI 571, TAI 572, TAI 573, TAI 574, TAI 575, TAI 577, TAI 578, TAI 579, TAI 584, TAI 585, TAI 586, TAI 588, TAI 589, TAI 590.

Area 2 - Natural Sciences (6 hours)

Choose from these disciplines: Astronomy (AST), Biology (BIO), Chemistry (CHM), Earth Science (ESC), Geology (GEL), Mathematics (MTH), Physical Science (PHS), Physics (PHY), Sciences (SCI), Statistics (STA).

These courses also fulfill Area 2 requirements:
- Communication Disorders - CDO 334, CDO 335
- Computer Science - CPS 110, CPS 120, CPS 150, CPS 180, CPS 181, CPS 210, CPS 280, CPS 340, CPS 360, CPS 370, CPS 380, CPS 410, CPS 450, CPS 468, CPS 530, CPS 541, CPS 560, and CPS 575
- Health Promotion and Rehabilitation - HSC 211, HSC 214, HSC 215
- Honors - HON 140
- Human Environmental Studies - HEV 361, HEV 370, and HEV 473
- Physical Anthropology - ANT 171, ANT 173, ANT 244, ANT 342, ANT 347, ANT 351, ANT 356

Area 3 - Social Sciences (6 hours)

Choose from these disciplines: Anthropology (ANT, except Physical Anthropology), Economics (ECO), Geography (GEO), History (HST), Political Science (PSC), Psychology (PSY), Sociology (SOC).

These courses also fulfill Area 3 requirements:
- Communication Disorders - CDO 130, ASL 101
- Honors - HON 120.
- Human Environmental Studies - HEV 100, HEV 111, HEV 212, HEV 252, HEV 306, and HEV 510.

Specialized Studies - 50-71 Semester Credit Hours

Plan B requires a major AND a minor, one of which must be selected from the list below (OR a major without a minor in Actuarial Science, Athletic Training/Sports Medicine, Computer Science - Mathematics, or Neuroscience):

- Major: In one of the following: Anthropology (ANT), Biology (BIO), Biomedical Sciences (BIO), Chemistry (CHM), Cognitive Science (Interdisciplinary, CPS, PHL, PSY), Communication Disorders (CDO), Computer Science (CPS), Dietetics (HEV), Earth Science (ESC), Economics (ECO), Environmental Studies (BIO), Geography (GEO), Geology (GEL), Health Fitness in Preventive and Rehabilitative Programs (HSC), History (HST), Hydrogeology/Environmental Geology (GEL), Information Technology (CPS), Mathematics (MTH), Medical Technology (BIO), Physics (PHY), Political Science (PSC), Psychology (PSY), Public Health Education and Health Promotion (HSC), Sociology (SOC), Statistics (STA), or any university approved major except majors in the College of Business Administration provided the minor is one listed below.

- Minor: In any university approved minor if the major is one listed above. Otherwise the minor must be one of the following: Anthropology (ANT), Biology (BIO), Chemistry (CHM), Communication Disorders (CDO), Computer Science (CPS), Earth Science (ESC), Economics (ECO), Geographic Information Sciences (GEO), Geography (GEO), Geology (GEL), History (HST), Hydrogeology/Environmental Geology (GEL), Information Technology (CPS), Mathematics (MTH), Meteorology (ESC), Natural Resources (BIO), Nutrition (HEV), Physics (PHY), Political Science (PSC), Psychology (PSY), Sociology (SOC), Statistics (STA). Some majors may specify appropriate minors.

Electives

The number of elective hours will vary depending upon the requirements for the major or minor.

Minimum Total for Graduation - 124 Semester Credit 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Science in Business Administration Degree (B.S. in B.A.)

This degree provides professional preparation for students aspiring to administrative careers in business, industry, and government. For information on Admission Requirements to Professional Business Studies, refer to the College of Business Administration section of this Bulletin on page 137.

General Education Requirements - 30-39 Semester Credit Hours

- University Program Requirements (27-30 hours): See pages 102 - 106.
- Competency Requirements (3-9 hours): See pages 107 - 108.

Other Degree Requirements - 19 Semester Credit Hours

1. BIS 101 (3) Essential Business Communication Skills
2. MTH 217 (4) Business Calculus
   OR MTH 132 (4) Calculus I
3. STA 282 (3) Introduction to Statistics
   OR STA 382 (3) Elementary Statistical Analysis
4. One of the following:
   PHL 118 (3) Moral Problems
   PHL 318 (3) Business Ethics
5. ECO 203 (3) Microeconomic Principles for Business
   ECO 204 (3) Principles of Macro- and Global Economics

Professional Studies - 26 Semester Credit Hours

Business Foundation (15 credit hours)
ACC 250 (3) Introduction to Financial Accounting
ACC 255 (3) Managerial Accounting & Decision Making
BIS 255 (3) Information Systems
BLR 235 (3) Business Law
MGT 258 (3) Effective Management of Human Resources in Organizations

Integrated Core (11 credit hours):
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

Specialized Studies - 30-42 Semester Credit Hours

Major in one of the following: Accounting (ACC), Accounting Information Systems (ACC/BIS), Economics (ECO), Finance (FIN), General Business Administration, General Management (MGT), Hospitality Services Administration (HSA), Human Resources Management (MGT), International Business, Logistics Management (MKT), Management Information Systems (BIS), Marketing (MKT), Operations Management (MGT), Personal Financial Planning (FIN), Purchasing and Supply Management (MGT/MKT), Retail Management (MKT).

Electives

The number of elective hours will vary depending upon the requirements for the degree and the major.

Minimum Total for Graduation - 124-126 Semester Credit 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.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.

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.

Please note: Students must also refer to the College of Business Administration (page 137) for the requirements to maintain Tier 2 Full Admission.
Bachelor of Science in Electrical Engineering Degree (B.S.E.E.)

General Education Requirements - 30-39 Semester Credit Hours
- University Program Requirements (27-30 hours): See pages 102 - 106.
- Competency Requirements (3-9 hours): See pages 107 - 108.

Mathematics and Science - 34-38 Semester Credit Hours
Mathematics (15-18):
MTH 132 (4) Calculus I*
MTH 133 (4) Calculus II
MTH 232 (3) Linear Algebra and Differential Equations
  OR MTH 223 (3) Linear Algebra and Matrix Theory
  AND MTH 334 (3) Differential Equations
MTH 233 (4) Calculus III

Statistics & Probability (3):
STA 382 (3) Elementary Statistical Analysis

Physics (9):
PHY 145 (4) University Physics I*
PHY 146 (4) University Physics II
PHY 175 (1) University Physics Lab I*

Chemistry (4-5):
CHM 131 (4) Introduction to Chemistry I*
  (satisfies Group II lab requirement)
  OR CHM 161 (5) Principles of Chemistry*
  (satisfies Group II lab requirement)

Computer Science (3):
CPS 180 (3) Principles of Computer Programming*
  * May also be used to fulfill University Program requirements.

Business Component - 9 Semester Credit Hours
Required (3):
BLR 202 (3) Legal Environment of Business*

Electives (6):
Select two courses from the following:
  ECO 201 (3) Principles of Macroeconomics
  OR ECO 202 (3) Principles of Microeconomics
  ACC 201 (3) Concepts of Financial Accounting
  MKT 300 (3) Introduction to Marketing (prerequisite: ECO 201)
  MGT 312 (3) Introduction to Management
  FIN 332 (3) Managerial Finance (prerequisites: ACC 201 and 202)
  * May also be used to fulfill University Program requirements.

Specialized Studies - 63 Semester Credit Hours
Major: Electrical Engineering (63 hours)
See the Department of Engineering and Technology section on page 238.

Minimum Total for Graduation - 130-134* Semester Credit Hours
* Those who fail to submit CLEP or AP credit (for ENG 101) and pass the oral competency examination (for SDA 101) will need to complete a minimum of 136 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 pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
This degree provides professional preparation for students aspiring to engineering careers in business, industry and government. This degree provides students with an opportunity to pursue a major in electronic, manufacturing, or mechanical engineering technology. Students who wish to pursue this degree must complete the following:

1. General Education Requirements (33-39 hours),
2. Basic Science and Mathematics (24-31 hours), and
3. an Engineering Technology Major (51 hours) which includes
   A. Broad-based Engineering Technology Core (21 hours),
   B. A specialization in electronic, mechanical, or manufacturing engineering technology (21 hours), and
   C. Technical electives (9 hours).

Students pursuing this degree must consult with a departmental advisor during the first semester at Central Michigan University.

(Asterisked courses may be used according to rules on pages 102 - 106 to satisfy University Program Requirements).

**General Education Requirements - 30-39 Semester Credit Hours**

- University Program Requirements (27-30 hours): See pages 102 - 106.
- Competency Requirements (3-9 hours): See pages 107 - 108.

**Basic Science and Mathematics - 24-31 Semester Credit Hours**

All students pursuing a major in electronic, manufacturing, or mechanical engineering technology must complete the following basic science and mathematics requirements:

- MTH 130 (4) Pre-Calculus Mathematics
- *MTH 132 (4) Calculus
- MTH 133 (4) Calculus II
- *PHY 130 (4) College Physics I
- OR *PHY 145 (4) University Physics I
- PHY 131 (4) College Physics II
- OR PHY 146 (4) University Physics II
- *PHY 170 (1) College Physics Laboratory I
- OR *PHY 175 (1) University Physics Laboratory I
- PHY 171 (1) College Physics Laboratory II
- OR PHY 176 (1) University Physics Laboratory II
- *CHM 120 (4) Survey of Chemistry
- OR *CHM 131 (4) Introduction to Chemistry I
- CPS 150 (2) Fortran Programming
- OR *CPS 180 (3) Principles of Computer Programming

**Specialized Studies - 51 Semester Credit Hours**

All engineering technology students are required to complete the following core courses. Additionally, all students must select 21 credits from one of three Technology Specializations and 9 credits from Technical Electives in consultation with an advisor. The specialization shall be the name of the major.

**A. Technology Core (21 Credit Hours)**
- IET 120 (3) Introduction to Engineering Technology
- IET 154 (3) Engineering Design Graphics
- IET 170 (3) Metal Technology
- IET 284 (3) Fluid Power Technology
- IET 292 (3) DC Circuit Analysis
- IET 365 (3) Plastics Technology
- IET 375 (3) Robotics

**B. Technology Specializations (21 Credit Hours)**

**Electronic Engineering Technology (21 Credit Hours):**
Select twenty-one semester hours of coursework from the following:
- IET 293 (3) AC Circuit Analysis
- IET 390 (3) Discrete Device Theory
- IET 392 (3) Linear Electronics
- IET 394 (3) Digital Electronics
- IET 492 (3) Interfacing with Programmable Devices
- IET 494 (3) Data Acquisition and Control
- IET 576 (3) Industrial Automation

**Mechanical Engineering Technology (21 Credit Hours):**
Select twenty-one semester hours of coursework from the following:
- IET 350 (3) Mechanism Design
- IET 351 (3) Dynamics
- IET 352 (3) Fluid Mechanics
- IET 356 (3) Thermodynamics
- IET 379 (3) Mechanics of Materials
- IET 452 (3) Mechanical Laboratory
- IET 454 (3) Mechanical Design Problems
- IET 458 (3) Advanced Computer-Aided Design

**Manufacturing Engineering Technology (21 Credit Hours):**
Select twenty-one semester hours of coursework from the following:
- IET 225 (3) Manufacturing Process Planning
- IET 326 (3) Manufacturing Methods Analysis
- IET 377 (3) Numerical Control Programming
- IET 426 (3) Plant Layout and Materials Handling
- IET 428 (3) Manufacturing Quality
- IET 477 (3) Computer-Assisted Numerical Control Programming
- IET 500 (3) Production Concepts
- IET 576 (3) Industrial Automation

(continued)
To graduate from CMU, you must complete a minimum of 124 hours, at least 40 hours of which must be numbered 300 or above.

Please note: The combination of some majors and minors may require more than 124 hours for graduation.

No more than 27 hours may be taken from the College of Business Administration and counted towards graduation.

Students wishing to complete this degree must contact the appropriate departmental advisor during their first semester at CMU.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.

NOTES:
1. MTH 130 may be waived upon the results of the mathematics placement examination or permission of a mathematics advisor.
2. Minor: Completion of a minor is optional. Students who wish to complete a minor are encouraged to select Computer Science, Mathematics, or Physics.
Bachelor of Science in Mechanical Engineering Degree (B.S.M.E.)

### General Education Requirements - 30-39 Semester Credit Hours
- *University Program Requirements (27-30 hours):* See pages 102-106.
- *Competency Requirements (3-9 hours):* See pages 107-108.

### Mathematics and Science - 34-38 Semester Credit Hours

**Mathematics (15-18):**
- MTH 132 (4) Calculus I*
- MTH 133 (4) Calculus II
- MTH 232 (3) Linear Algebra and Differential Equations
  - OR MTH 223 (3) Linear Algebra and Matrix Theory
  - AND MTH 334 (3) Differential Equations
- MTH 233 (4) Calculus III

**Statistics & Probability (3):**
- STA 382 (3) Elementary Statistical Analysis

**Physics (9):**
- PHY 145 (4) University Physics I*
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Lab I*

**Chemistry (4-5):**
- CHM 131 (4) Introduction to Chemistry I* (satisfies Group II lab requirement)
  - OR CHM 161 (5) Principles of Chemistry* (satisfies Group II lab requirement)

**Computer Science (3):**
- CPS 180 (3) Principles of Computer Programming*
  - *May also be used to fulfill University Program requirements.

### Business Component - 9 Semester Credit Hours

**Required (3):**
- BLR 202 (3) Legal Environment of Business*

**Electives (6):**
- Select two courses from the following:
  - ECO 201 (3) Principles of Macroeconomics
  - OR ECO 202 (3) Principles of Microeconomics
  - ACC 201 (3) Concepts of Financial Accounting
  - MKT 300 (3) Introduction to Marketing (prerequisite: ECO 201)
  - MGT 312 (3) Introduction to Management
  - FIN 332 (3) Managerial Finance (prerequisites: ACC 201 and 202)
  - *May also be used to fulfill University Program requirements.

### Specialized Studies - 63 Semester Credit Hours

**Major:** Mechanical Engineering (63 hours)
- See the Department of Engineering and Technology section on page 238.

### Minimum Total for Graduation - 130-134* Semester Credit Hours

*Those who fail to submit CLEP or AP credit (for ENG 101) and pass the oral competency examination (for SDA 101) will need to complete a minimum of 136 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 27 hours may be taken from the College of Business Administration and counted towards graduation.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Science in Education Degree
(B.S. in Ed.)

Completion of this degree will qualify a student for recommendation to the Michigan State Board of Education for either an Elementary Provisional Certificate, which will permit the holder to teach in the elementary schools, or for a Secondary Provisional Certificate, which will permit the holder to teach the major and minor in the secondary grades.

Majors in Art (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.

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 impairment 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 impairment in grades K-12.

Elementary Provisional Certification

General Education - 30-42 Semester Credit hours

The State Board of Education requires a minimum of 40 hours of General Education for teacher certification.

- University Program Requirements (27-30 hours): See pages 102 - 106.
- Competency Requirements (3-12 hours): See pages 107 - 108.

Other Degree Requirements - 24-65 Semester Credit Hours

(Asterisked courses can be used according to rules on pages 102-106 to satisfy University Program Requirements)

Language, Arts and Humanities (12 hours)

Must take:

ENG 381 (3) Children’s Literature

And one course from the following:

* ENG 236 (3) English Literature I (I-A)
* ENG 251 (3) American Literature: Colonial Through the Romantic Period (I-A)
* ENG 252 (3) American Literature: Realistic Period to the Present (I-A)
* ENG 262 (3) Masterpieces of European Literature (I-A)
* ENG 323 (3) Fantasy and Science Fiction (I-A)
* ENG 330 (3) Mythological Backgrounds of Western Lit. (I-A)

And two courses with different designators from the following: OR *HON 130 (6) Western Cultural and Intellectual Traditions (1A, 1B):

* ART 126 (3) Introduction to Visual Arts (I-B)
* MUS 110 (3) Music in Society (I-B)
* MUS 114 (3) Listening Experience (I-B)
* PHL 118 (3) Moral Problems (I-B)
* PHL 218 (3) Ethical Theory (I-A)
* HST 326 (3) Women in America (I-A)

Science (12-13 hours)

Must take:

BIO 229 (3) Nature Study

And one course (or two course laboratory combinations) from the following:

* PHS 151 (3) Introductory Physical Science I (II-B)
* CHM 101 (3) Armchair Chemistry (II-B)

OR *CHM 111 (3) The Interaction of Chemistry and Society (II-A)
AND *CHM 127 (1) Introductory Chemistry Laboratory (II-B)
OR *CHM 120 (4) Survey of Chemistry (II-B)
AND *CHM 127 (1) Introductory Chemistry Laboratory (II-B)

And two courses (or two course-laboratory combinations), representing two of the following three categories OR *HON 140 (6) Symmetry in Science (II-A, II-B):

Category I - Biology (BIO):

* BIO 101 (3) General Biology (II-A)
* BIO 105 (3) Introductory Quantitative Biology (II-B)
* BIO 151 (3) Human Biology (II-A)
* BIO 240 (3) Conservation of Natural Resources (II-A)

Category II - Astronomy (AST):

* AST 111 (3) Astronomy (II-A)
* AST 112 (3) Earth Processes (II-B)

Category III - Earth Science (ESC, GEL):

* ESC 105 (3) Physical Geography (II-A)
* GEL 101 (3) Physical Geology (II-A)

Other courses:

* GEL 102 (1) Physical Geology Laboratory (II-B)
* GEL 100 (3) Introduction to Earth Systems (II-A)
* GEL 130 (3) Earth Processes (II-B)

Social Sciences (12 hours)

Must take:

* GEO 121 (3) Cultures of the World (III-B)
* PSC 105 (3) Introduction to American Government and Politics (III-B)

And one course from the following:

* HST 110 (3) The American Experience (I-A)
* HST 111 (3) United States to 1865 (III-B)
* HST 112 (3) United States, 1865 to the Present (III-B)

And one from the following OR *HON 120 (6) The Individual and Community in Modern Society (III-A, III-B):

ECO 110 (3) Economics in Society (III-B)
ANT 170 (3) Cultural Anthropology (III-B)
SOC 100 (3) Introductory Sociology (III-B)
PSY 100 (3) Introduction to Psychology (III-A)

Cultural and Human Diversity (3-4 hours)

Must take one from the following:

* ANT 200 (3) Education and Culture (IV-A)
* ANT 365 (3) Current American Indian Issues (IV-A)
* ANT 321 (3) Cultures of Latin America (IV-B)
* ANT 322 (3) Cultures of Africa (IV-B)
* FRN 101 (4) Elementary French I (IV-B)
* FRN 202 (4) Intermediate French II (IV-B)
* GEO 120 (3) Environmental Geography (IV-A)
* GER 101 (4) Elem. German: Language and Culture (IV-B)
* GER 102 (4) Elem. German: Language and Culture II (IV-B)
* GER 201 (4) Intermediate German I (IV-B)
* GER 202 (4) Intermediate German II (IV-B)

And one from the following:

* HST 163 (3) The Latin American Experience (IV-B)
* HST 176 (3) The African Experience (IV-B)
* HST 324 (3) African-American History to 1915 (IV-C)
* HST 325 (3) African-Americans in Twentieth Century America (IV-C)
* PSY 334 (3) Psychology of Women (III-A)
* PSY 533 (3) Psychology of Racism
* RUS 101 (4) Elementary Russian (IV-B)
* SPE 550 (3) Teaching Culturally Diverse Students
* SPN 101 (4) Elementary Spanish I (IV-B)
* SPN 102 (4) Elementary Spanish II (IV-B)
* SPN 201 (4) Intermediate Spanish I (IV-B)
* SPN 202 (4) Intermediate Spanish II (IV-B)
Degree Requirements

Mathematics (6 hours)
Must take:
MTH 151 (3) Mathematics for Elementary Teachers I
MTH 152 (3) Mathematics for Elementary Teachers II

Computer and Technology Education (3 hours)
Must take a minimum of 3 hours:
EDU 290 (3) Technology in Education
IET 232 (2) Technology for Children
IET 532 (3) Careers and Technology for Children

Health and Physical Education (0-3 hours)
Must take (except PES majors):
PES 310 (3) Physical Education for the Classroom (not required for students with PES minors)

Art and Music Education (6 hours)
Must take:
ART 345 (3) Art in the Elementary School
MUS 330 (3) Music for Elementary Classroom Teachers

Professional Education -
42 Semester Credit Hours
EDU 107 (3) Introduction to Teaching
EDU 280 (3) Education of Children
EDU 320 (3) Elementary Mathematics Methods
EDU 330 (3) Reading in the Elementary School
EDU 343 (3) Social Studies Methods in Elementary Education
EDU 345 (3) Science Methods in Elementary Education
EDU 361 (2) Midtier Practicum
EDU 431 (3) Corrective Reading in the Classroom
EDU 495 (3) Foundations of Education
EDU 458 (10) Student Teaching Seminar

Read carefully the section on Standards Leading to Teaching Certification, page 78 for additional requirements.

Specialized Studies -
50-72 Semester Credit Hours

Elementary Education Students must select one of the following options:

Option 1
Select a major and a minor representing at least two of the following three groups. (Example: If a major is selected from group 1, the minor must be selected from group 2 or 3).

Majors:
Group 1. Integrated Science (CST) Mathematics (MTH), Physical Science (PHS)
Group 2. History (HST), Social Studies (interdisciplinary)
Group 3. English (ENG), Language Arts (interdisciplinary)

Minors:
Group 1. Integrated Science (CST), Mathematics (MTH), Physical Science (PHS)
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)

Option 2
Select three minors representing at least two of the first three groups listed below. (Example: After selecting two minors from two of the first three groups listed below, the third minor may be selected from any group.)
Group 1. Integrated Science (CST), Mathematics (MTH), Physical Science (PHS)
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)

Minimum Total for Graduation -
124-173 Semester Credit Hours

Please note: The combination of some majors and minors may require more than 124 hours for graduation.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.

Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.
Bachelor of Science in Education Degree
(B.S. in Ed.)

Secondary Provisional Certification

General Education Requirements - 30-42 Semester Credit Hours

The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification.

• University Program Requirements (27 - 30 hours): See pages 102 - 106.
• Competency Requirements (3 - 12 hours): See pages 107 - 108.

Other Degree Requirements - 36-43 Semester Credit Hours

The Michigan State Board of Education requires a minimum of 40 hours of general education for teacher certification. The following requirements are intended to increase the general education program to the state-required 40 hours in general education in a way that is consistent with State/NCATE standards. Courses taken to satisfy the University Program Requirements or Competency Requirements may be used to satisfy the Other Degree Requirements listed below. These requirements must be completed prior to student teaching. Departments may specify some of these courses as prerequisites to methods of teaching classes.

(Asterisked courses may be used according to rules on pages 102 - 106 to satisfy University Program Requirements).

Mathematics

Three (3) semester hours in a mathematics (MTH) or statistics (STA) course numbered 105 or above except MTH 151, MTH 152 or MTH 200. (See Group II-B for MTH courses which satisfy University Program Requirements).

Communication

This will be accomplished by successful completion of the university written and oral competency requirements.

Science

Six (6) hours in the sciences according to the requirements for Group II (Natural Sciences) of the University Program (except PHL 140, MTH 132, and MTH 203).

American History/Western Civilization

Three (3) semester hours in American History/Western Civilization from the following courses OR *HON 130 (6) Western Cultural and Intellectual Traditions:

*HST 101 (3) The Development of Western Civilization
*HST 102 (3) The Development of Western Civilization
*HST 110 (3) The American Experience (See Group I-A of the University Program).
*HST 106 (3) Twentieth Century: Western World Issues
*HST 111 (3) United States to 1865
*HST 112 (3) United States, 1865 to the Present
(See Group III-B of the University Program).

Government

*PSC 105 (3) Introduction to American Government and Politics (See Group III-B of the University Program).

Philosophy

Three (3) semester hours in Philosophy. (May use Groups I-A, II-B, IV-A, IV-B and IV-C for PHL courses which satisfy University Program Requirements).

Literature

Three (3) semester hours in Literature chosen from the following:

*ENG 235 (3) English Literature
*ENG 236 (3) English Literature
*ENG 251 (3) American Literature: Colonial Through the Romantic Period
*ENG 252 (3) American Literature: Realistic Period to the Present
*ENG 261 (3) Masterpieces of Ancient Literature
*ENG 262 (3) Masterpieces of European Literature
*ENG 323 (3) Fantasy and Science Fiction (See Group I-A of the University Program).
*ENG 326 (3) The Literary Dimensions of Film (See Group I-B of the University Program).

Arts

Six (6) semester hours from departments offering courses with the following designators: ART, BCA, DAN (except DAN 134), MUS, TAI (except TAI 170). (See Groups I-A & I-B of the University Program).

Human Development

Three (3) hours from the following courses:

*PSY 220 (3) Developmental Psychology
*HEV 100 (3) Human Growth and Development: Lifespan (III-A)

Multicultural and Global Studies

Three (3) semester hours in Studies in Diverse Cultures. (Any course from the University Program Group IV-B or IV-C will fulfill this requirement).

Professional Education - 31 Semester Credit Hours

EDU 107 (3) Introduction to Teaching
EDU 290 (3) Technology in Education
EDU 310 (3) Psychological Foundations of Education
EDU 325 (3) Middle Level and High School Teaching Methods
EDU 450 (3) Content Area Literacy
EDU 495 (3) Foundations of Education
EDU 432 (3) Student Teaching Seminar
EDU 458 (10) Student Teaching

Read carefully the section on Standards Leading to Teacher Certification, page 78 for additional requirements.

(continued)
**Specialized Studies - 50-80 Semester Credit Hours**

**Major** in one of the following fields (30-54 hours):
- Biology (BIO)
- Business Teacher Educ. (BIS)
- Chemistry (CHM)
- Chemistry-Physics (Interdisciplinary)
- Earth Science (ESC)
- English (ENG)
- Family Studies: Life Management Education (HEV)
- French (FRN)
- Geography (GEO)
- German (GER)
- History (HST)
- Industrial Education (IET)
- Mathematics (MTH)
- Physical Education (PES)
- Physical Education (PHS)
- Physics (PHY)
- School Health Education (HSC)
- Social Studies (Interdisciplinary)
- Spanish (SPN)
- Speech (SDA)
- Speech (Broadcast emphasis)
- Visual Arts Education (ART)

**Minor** in one of the following fields (20-29 hours):
- Biology (BIO)
- Business Teacher Educ. (BIS) (non-business teaching majors only)
- Bilingual Bicultural Education - Ojibwe (interdisciplinary)
- Bilingual Bicultural Education - Spanish (interdisciplinary)
- Chemistry (CHM)
- Dance (DAN)
- Earth Science (ESC)
- English (ENG)
- English Language as a Second Language (ENG)
- French (FRN)
- General Business (BIS)
- Geography (GEO)
- German (GER)
- History (HST)
- Industrial Education (IET)
- Mathematics (MTH)
- Outdoor and Environmental Education (RPL)
- Physical Education (PES)
- Physical Science (PHS)
- Physics (PHY)
- School Health Education (HSC)
- Spanish (SPN)
- Speech (SDA)

**Note:** Some majors require a particular minor and some minors are available only to particular majors. Check the requirements for majors and minors in departmental description sections for further information.

**Minimum Total For Graduation - 124-150 Semester Credit 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 27 hours may be taken from the College of Business Administration and counted towards graduation.

* Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.

*You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.*
Bachelor of Science in Education Degree (B.S. in Ed.)

**Elementary Provisional Certification with Emotional or Cognitive Impairment Endorsement (K-12)**

**General Education Requirements - 30-42 Semester Credit Hours**

The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification.

- **University Program Requirements** (27 - 30 hours): See pages 102 - 106.
- **Competency Requirements** (3-12 hours): See pages 107 - 108.

**Other Degree Requirements - 26-28 Semester Credit Hours**

- CDO 438 (3) Language Disorders in Special Education Populations
- ENG 381 (3) Children's Literature
- MTH 151 (3) Mathematics for Elementary Teachers I
- MTH 152 (3) Mathematics for Elementary Teachers II
- PSY 100 (3) Introduction to Psychology
- PSY 220 (3) Developmental Psychology
- PSY 310 (3) Psychological Testing

Select two of the following three:
- a. ART 345 (3) Art in the Elementary School
- b. IET 232 (2) Technology for Children
- c. MUS 330 (3) Music for Elementary Classroom Teachers

**Professional Education - 44 Semester Credit Hours**

- EDU 107 (3) Introduction to Teaching
- EDU 320 (3) Elementary Mathematics Methods
- EDU 330 (3) Reading in the Elementary School
- EDU 343 (3) Social Studies Methods in Elementary Education
- EDU 345 (3) Science Methods in Elementary Education
- EDU 361 (2) Midtier Practicum
- EDU 431 (3) Corrective Reading in the Classroom
- EDU 493 (3) Learning and Evaluation in Elementary Education
- EDU 495 (3) Foundations of Education
- EDU 432 (3) Student Teaching Seminar
- EDU 458 (6) Student Teaching
- SPE 455 (3) Special Education Student Teaching Seminar
- SPE 456 (6) Special Education Student Teaching: Emotional Impairment
  OR SPE 458 (6) Special Education Student Teaching: Cognitive Impairment

Read carefully the section on Standards Leading to Teacher Certification, page 78 for additional requirements.

**Specialized Studies - 59-64 Semester Credit Hours**

**Major** in either of the following fields (39 hours):
- Teachers of Students with Emotional Impairment
- Teachers of Students with Cognitive Impairment

**Minor** in one of the following fields (20-28 hours):
- Bilingual Bicultural Education - Ojibwe (interdisciplinary)
- Bilingual Bicultural Education - Spanish (interdisciplinary)
- Child Development (HEV)
- English (ENG)
- Geography (GEO)
- History (HST)
- Industrial Education (IET)
- Integrated Science (CST)
- Language Arts (interdisciplinary)
- Mathematics (MTH)
- Special Physical Education (PES)
- Physical Science (PHS)
- Reading in the Elementary Grades (interdisciplinary)
- Spanish (SPN)

**Minimum Total for Graduation - 133-165 Semester Credit 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 27 hours may be taken from the College of Business Administration and counted towards graduation.

**Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.**

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Science in Education Degree
(B.S. in Ed.)

Secondary Provisional Certification with Emotional or Cognitive Impairment Endorsement (K-12)

General Education Requirements - 30-42 Semester Credit Hours

The Michigan State Board of Education requires a minimum of 40 hours of General Education for teacher certification.
- University Program Requirements (27 - 30 hours): See pages 102 - 106.
- Competency Requirements (3-12 hours): See pages 107 - 108.

Other Degree Requirements - 6-43 Semester Credit Hours

The Michigan State Board of Education requires a minimum of 40 hours of general education for teacher certification. The following requirements are intended to increase the general education program to the state-required 40 hours in general education in a way that is consistent with State/NCATE standards. Courses taken to satisfy the University Program Requirements or Competency Requirements may be used to satisfy the Other Degree Requirements listed below. Departments may specify some of these courses as prerequisites to methods of teaching classes.

(Asterisked courses may be used according to rules on pages 102-106 to satisfy University Program Requirements.)

Mathematics
Three (3) semester hours in a mathematics (MTH) OR statistics (STA) course numbered 105 or above except MTH 151, MTH 152 or MTH 200. (See Group II-B for MTH courses which satisfy University Program Requirements.)

Communication
CDO 438 (3) Language Disorders in Special Education Populations AND successful completion of the university written and oral competency requirements.

Science
Six (6) hours in the sciences according to the requirements for Group II (Natural Sciences) of the University Program (except PHL 140, MTH 132, and MTH 203).

American History/Western Civilization
Three (3) semester hours in American History/Western Civilization from the following courses OR *HON 130 (6) Western Cultural and Intellectual Traditions:
- HST 101 (3) The Development of Western Civilization
- HST 102 (3) The Development of Western Civilization
- HST 110 (3) The American Experience (See Group I-A of the University Program).
- HST 106 (3) Twentieth Century: Western World Issues
- HST 111 (3) United States to 1865
- HST 112 (3) United States, 1865 to the Present (See Group III-B of the University Program.)

Government
*PSC 105 (3) Introduction to American Government and Politics (See Group III-B of the University Program.)

Philosophy
Three (3) semester hours in Philosophy. (May use Groups I-A, II-B, IV-A, IV-B and IV-C for PHL courses which satisfy University Program Requirements.)

Literature
Three (3) semester hours in Literature chosen from the following:
- ENG 235 (3) English Literature
- ENG 236 (3) English Literature
- ENG 251 (3) American Literature: Colonial Through the Romantic Period
- ENG 252 (3) American Literature: Realistic Period to the Present
- ENG 254 (3) Masterpieces of Ancient Literature
- ENG 262 (3) Masterpieces of European Literature
- ENG 323 (3) Fantasy and Science Fiction (See Group I-A of the University Program.)
- ENG 326 (3) The Literary Dimensions of Film (See Group I-B of the University Program.)

Arts
Six (6) semester hours from departments offering courses with the following designators: ART, BCA, DAN (except DAN 134), MUS, TAI (except TAI 170). (See Groups I-A & I-B of the University Program.)

Psychology (9 hours)
*PSY 100 (3) Introduction to Psychology (See Group III-A of the University Program.)
PSY 220 (3) Developmental Psychology
PSY 310 (3) Psychological Testing

Multicultural and Global Studies
Three (3) semester hours in Studies in Diverse Cultures. (Any course from the University Program Group IV-B or IV-C will fulfill this requirement.)

Professional Education - 36 Semester Credit Hours

EDU 107 (3) Introduction to Teaching
EDU 290 (3) Technology in Education
EDU 310 (3) Psychological Foundations of Teaching
EDU 325 (3) Middle Level and High School Teaching Methods
EDU 450 (3) Content Area Literacy
EDU 495 (3) Foundations of Education
EDU 432 (3) Student Teaching Seminar
EDU 458 (6) Student Teaching
SPE 455 (3) Special Education Student Teaching Seminar
SPE 456 (6) Special Education Student Teaching: Cognitive Impairment
OR SPE 458 (6) Special Education Student Teaching: Emotional Impairment

Read carefully the section on Standards Leading to Teacher Certification, page 78 for additional requirements.

(continued)
100 Degree Requirements

Specialized Studies

Option A: Two Majors: 81-105 Semester Credit Hours

Major in Teachers of Students with Cognitive Impairment OR Teachers of Students with Emotional Impairment AND one of the following:
- Biology (BIO)
- Business Teacher Education (BIS)
- Chemistry (CHM)
- Chemistry-Physics (interdisciplinary)
- Earth Science (ESC)
- English (ENG)
- Family Studies: Life Management Education (HEV)
- Geography (GEO)
- History (HST)
- Industrial Education (IET)
- Mathematics (MTH)
- Physical Education (PES)
- Physical Science (PHS)
- School Health Education (HSC)
- Spanish (SPN)

Option B: Major and Two Minors: 91-103 Semester Credit Hours

Major in Teachers of Students with Cognitive Impairment OR Teachers of Students with Emotional Impairment

Minor in two of the following fields:
- one from Field A and one from Field B
- OR two from Field A (40-52 hours):
  **Field A**
  - Biology (BIO),
  - Bilingual Bicultural Education - Ojibwe (interdisciplinary),
  - Bilingual Bicultural Education - Spanish (interdisciplinary),
  - Business Teacher Education (BIS),
  - Chemistry (CHM),
  - Earth Science (ESC),
  - English (ENG),
  - Geography (GEO),
  - History (HST),
  - Industrial Education (IET),
  - Mathematics (MTH),
  - Physical Education (PES),
  - Physical Science (PHS),
  - Physics (PHY),
  - Spanish (SPN)
  **Field B**
  - Dance (DAN),
  - French (FRN),
  - German (GER),
  - Outdoor and Environmental Education (RPL),
  - School Health Education (HSC),
  - Speech (SDA)

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.

Minimum Total for Graduation - 156-216 Semester Credit 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 27 hours may be taken from the College of Business Administration and counted towards graduation.

Early advisement and planning are necessary to be able to complete this degree with as few hours as possible.

Students must take state required tests in both minors as well as the major.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
Bachelor of Social Work Degree (B.S.W.)

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 Semester Credit Hours**

- **University Program Requirements** (27-30 hours): See pages 102 - 106.
- **Competency Requirements** (3-12 hours): See pages 107 - 108.
  
  See General Education Requirements section for a complete description of the University program and Competency Requirements.

**Other Degree Requirements - 7 Semester Credit Hours**

- BIO 151 (3) Human Biology
- LIB 197 (1) Introduction to Library and Information Research
- PSY 220 (3) Developmental Psychology
- OR HEV 100 (3) Human Growth and Development: Lifespan

**Specialized Studies - 70-74 Semester Credit Hours**

**Major**: Social Work (50 hours)

See the Department of Sociology, Anthropology, and Social Work section.

**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 Total Hours - 124 Semester Credit 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 27 hours may be taken from the College of Business Administration and counted towards graduation.

You should read pages 76 and 77 in this Bulletin for a complete description of requirements for graduation.
General Education

General Education at Central Michigan University consists of two areas of liberal study and achievement, University Program and Competency Requirements, which are required of all students. A third area, Teacher Certification, is required of all candidates for teaching degrees.

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 which 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, where possible, through study 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 255 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
   CHM 101 Armchair Chemistry
   CHM 127 Introductory Chemistry Laboratory
   CHM 131 Introduction to Chemistry I
   CHM 161 Principles of Chemistry
   ESC 105 Physical Geography
   ESC 240 Meteorology
   GEL 100 Introduction to Earth Systems
   GEL 102 Physical Geology Laboratory
   GEL 130 Earth Processes
   HON 140 Symmetry in Science: From Microscopic to Macroscopic Systems
   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 Subcommittee. 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 Subcommittee. 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 106 of this Bulletin.

2. If you are interested in participating in international programs, you should note that you may also apply to the General Education Subcommittee for further University Program credit for coursework done abroad on a course-by-course basis. Documentation of the nature of the work done in each course (such as syllabi, course outlines, and assignments) is essential. It is your responsibility to collect and provide such documentation. If you are interested, contact the Director of International Programs for further information.

I. Retroactive credits (see page 207) may not be used to fulfill University Program requirements.
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), HSC (Health Promotion and Rehabilitation), MTH (Mathematics), PHY (Physics), PHS (Physical Sciences), SCI (General or Natural Science).

Group III - Social Sciences
   A minimum of six but not more than nine hours of coursework from at least two of the following disciplines:
   - ANT (Anthropology), CDO (Communication Disorders), HEV (Human Environmental Studies), PSC (Political Science), PSY (Psychology), SOC (Sociology), ECO (Economics), GEO (Geography), JRN (Journalism), SSC (Social Science).

Group IV - Integrative and Area Studies

This is identical to the CMU University Program. The student must transfer 6-9 hours of coursework on a course by course basis. Three hours must apply to Subgroup A, and three hours must apply to Subgroup C of Group IV of the CMU University Program. The requirement for Subgroup B may be met by the transfer of 3 hours of coursework or demonstrated completion of any of the alternative experiences described in paragraph H above.

NOTES:

1. Transfer students who have no more than 12 semester hours remaining on the University Program Transfer Block Option with completed coursework as distributed above (and prior to their first full-time enrollment at CMU) may use the University Program Transfer Block Option. For purposes of this rule, full-time means at least 12 hours attempted in a single semester. Any additional courses needed to meet the distribution requirements outlined above and to reach a total of 27-30 credit hours must be chosen from the appropriate categories within the list of CMU University Program courses in this Bulletin. For example, any deficiency in Group I transfer credit must be remedied by taking CMU University Program courses listed under Group I in this Bulletin. Any deficiency in transfer credit for Group IV Subgroup A must be remedied by taking a CMU course listed under Group IV Subgroup A in this Bulletin; any deficiency in Group IV Subgroup B must be remedied by taking a CMU course from Group IV Subgroup B; and any deficiency in Group IV Subgroup C must be remedied by taking a CMU course from Group IV Subgroup C. In choosing CMU courses to complete their 30 hours, students must also follow the rules stated on page 102 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. 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 (pages 107-108) 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.
### Group I. Humanities
(At least 6 semester hours)

**HON 130** Western Cultural and Intellectual Traditions

#### Subgroup A. Human Events and Ideas
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 185</td>
<td>Introduction to Western Art, Part I</td>
</tr>
<tr>
<td>ART 285</td>
<td>Introduction to Western Art, Part II</td>
</tr>
<tr>
<td>BCA 288</td>
<td>History and Appreciation of the Cinema</td>
</tr>
<tr>
<td>BCA 290</td>
<td>French Film and Other Media</td>
</tr>
<tr>
<td>ENG 236</td>
<td>English Literature</td>
</tr>
<tr>
<td>ENG 236</td>
<td>English Literature</td>
</tr>
<tr>
<td>ENG 251</td>
<td>American Literature: Colonial Through the</td>
</tr>
<tr>
<td></td>
<td>Romantic Period</td>
</tr>
<tr>
<td>ENG 252</td>
<td>American Literature: Realistic Period to the</td>
</tr>
<tr>
<td></td>
<td>Present</td>
</tr>
<tr>
<td>ENG 261</td>
<td>Masterpieces of Ancient Literature</td>
</tr>
<tr>
<td>ENG 262</td>
<td>Masterpieces of European Literature</td>
</tr>
<tr>
<td>ENG 323</td>
<td>Fantasy and Science Fiction</td>
</tr>
<tr>
<td>ENG 330</td>
<td>Mythological Backgrounds of Western Literature</td>
</tr>
<tr>
<td>HST 101</td>
<td>The Development of Western Civilization</td>
</tr>
<tr>
<td>HST 102</td>
<td>The Development of Western Civilization</td>
</tr>
<tr>
<td>HST 110</td>
<td>The Medieval Experience</td>
</tr>
<tr>
<td>HST 200</td>
<td>Ancient Greece and Rome</td>
</tr>
<tr>
<td>HST 238</td>
<td>Ancient Greece and Rome</td>
</tr>
<tr>
<td>HST 326&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Women in America</td>
</tr>
<tr>
<td>HST 341</td>
<td>Renaissance and Reformation</td>
</tr>
<tr>
<td>HST 342</td>
<td>The Culture of Renaissance Italy (Study Abroad)</td>
</tr>
<tr>
<td>HUM 101</td>
<td>Introduction to the Humanities</td>
</tr>
<tr>
<td>MTH 200</td>
<td>Mathematics - A Cultural Approach</td>
</tr>
<tr>
<td>PHL 100</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHL 118</td>
<td>Moral Problems</td>
</tr>
<tr>
<td>PHL 218</td>
<td>Ethical Theory</td>
</tr>
<tr>
<td>PHL 230</td>
<td>Philosophy of Religion</td>
</tr>
<tr>
<td>PSC 275</td>
<td>Great Political Thinkers</td>
</tr>
<tr>
<td>PSC 371</td>
<td>American Political Thought</td>
</tr>
<tr>
<td>PSC 378</td>
<td>Modern Democratic Theory</td>
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<td>REL 101</td>
<td>World Religions: An Introduction to the study of</td>
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<tr>
<td></td>
<td>Religion</td>
</tr>
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<td>REL 130</td>
<td>Religion in America</td>
</tr>
<tr>
<td>REL 250</td>
<td>The Old Testament and Its Age</td>
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<tr>
<td>REL 260</td>
<td>The New Testament and Its Age</td>
</tr>
<tr>
<td>REL 313</td>
<td>Christianity</td>
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<tr>
<td>REL 315</td>
<td>Judaism</td>
</tr>
<tr>
<td>WST 328&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Women in America</td>
</tr>
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</table>

#### Subgroup B. The Arts
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ART 126</td>
<td>Introduction to the Visual Arts</td>
</tr>
<tr>
<td>ART 319</td>
<td>Art Criticism</td>
</tr>
<tr>
<td>BCA 300</td>
<td>African and African American Film</td>
</tr>
<tr>
<td>ENG 134</td>
<td>Introduction to Literature</td>
</tr>
<tr>
<td>ENG 326&lt;sup&gt;2&lt;/sup&gt;</td>
<td>The Literary Dimensions of Film</td>
</tr>
<tr>
<td>ENG 334</td>
<td>Literary Theory</td>
</tr>
<tr>
<td>MUS 110</td>
<td>Music in Society</td>
</tr>
<tr>
<td>MUS 114</td>
<td>Listening Experience</td>
</tr>
<tr>
<td>MUS 206</td>
<td>Understanding Musical Composition</td>
</tr>
<tr>
<td>MUS 213</td>
<td>Jazz: An American Art Form</td>
</tr>
<tr>
<td>MUS 313</td>
<td>Musics of the World</td>
</tr>
<tr>
<td>TAI 170</td>
<td>Fundamentals of Interpretative Reading</td>
</tr>
<tr>
<td>TAI 175</td>
<td>Appreciation of the Theatre</td>
</tr>
</tbody>
</table>

1. A student must complete both semesters of HON 130 for credit in both I A and I B.

2. HST 326 and WST 328 are the same course.

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

**HON 140** Symmetry in Science: From Microscopic to Macroscopic Systems

#### Subgroup A. Descriptive Sciences
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ANT 171</td>
<td>Human Origins: Introduction to Physical Anthropology</td>
</tr>
<tr>
<td>ANT 173&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Laboratory in Physical Anthropology</td>
</tr>
<tr>
<td>AST 111</td>
<td>Astronomy</td>
</tr>
<tr>
<td>AST 112&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Introduction to Astronomical Observation (Lab)</td>
</tr>
<tr>
<td>BIO 101</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIO 151</td>
<td>Human Biology</td>
</tr>
<tr>
<td>BIO 240</td>
<td>Conservation of Natural Resources</td>
</tr>
<tr>
<td>CHM 111</td>
<td>The Interaction of Chemistry and Society</td>
</tr>
<tr>
<td>ESC 105&lt;sup&gt;8&lt;/sup&gt;</td>
<td>Physical Geography</td>
</tr>
<tr>
<td>ESC 201</td>
<td>Weather</td>
</tr>
<tr>
<td>ESC 205</td>
<td>Oceanography</td>
</tr>
<tr>
<td>GEL 100&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Introduction to Earth Systems</td>
</tr>
<tr>
<td>GEL 101</td>
<td>Physical Geology</td>
</tr>
<tr>
<td>GEL 102&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Physical Geology Laboratory</td>
</tr>
<tr>
<td>GEL 105</td>
<td>Environmental Geology</td>
</tr>
<tr>
<td>GEL 230</td>
<td>Prehistoric Life</td>
</tr>
<tr>
<td>GEL 301</td>
<td>Geology and Michigan</td>
</tr>
<tr>
<td>HEV 370</td>
<td>Nutrition</td>
</tr>
<tr>
<td>HSC 211</td>
<td>Human Anatomy and Physiology</td>
</tr>
</tbody>
</table>

#### Subgroup B. Quantitative and Mathematical Sciences
(At least 3 semester hours)

It is recommended that the mathematics competency be completed before enrolling in a Group II B course of the University Program.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 105&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Introductory Quantitative Biology</td>
</tr>
<tr>
<td>CHM 101&lt;sup&gt;9&lt;/sup&gt;</td>
<td>Armchair Chemistry</td>
</tr>
<tr>
<td>CHM 120</td>
<td>Survey of Chemistry</td>
</tr>
<tr>
<td>CHM 127&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Introductory Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHM 131&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Introduction to Chemistry I</td>
</tr>
<tr>
<td>CHM 161&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Principles of Chemistry</td>
</tr>
<tr>
<td>CPS 180</td>
<td>Principles of Computer Programming</td>
</tr>
<tr>
<td>ESC 240&lt;sup&gt;10&lt;/sup&gt;</td>
<td>Meteorology</td>
</tr>
<tr>
<td>GEL 130&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Earth Processes</td>
</tr>
<tr>
<td>MTH 132</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MTH 203</td>
<td>Mathematics - A Modeling Approach</td>
</tr>
<tr>
<td>PHL 140</td>
<td>Introduction to Logic</td>
</tr>
<tr>
<td>PHS 101</td>
<td>Survey of Physical Science</td>
</tr>
<tr>
<td>PHS 151&lt;sup&gt;11&lt;/sup&gt;</td>
<td>Introductory Physical Science I</td>
</tr>
<tr>
<td>PHS 371&lt;sup&gt;11&lt;/sup&gt;</td>
<td>Musical Acoustics</td>
</tr>
<tr>
<td>PHY 100</td>
<td>Conceptual Physics</td>
</tr>
<tr>
<td>PHY 110</td>
<td>Physics of Sports</td>
</tr>
<tr>
<td>PHY 127&lt;sup&gt;12&lt;/sup&gt;</td>
<td>Table Top Physics</td>
</tr>
<tr>
<td>PHY 130</td>
<td>College Physics I</td>
</tr>
<tr>
<td>PHY 170&lt;sup&gt;11&lt;/sup&gt;</td>
<td>College Physics Laboratory I</td>
</tr>
<tr>
<td>PHY 145</td>
<td>University Physics I</td>
</tr>
<tr>
<td>PHY 175&lt;sup&gt;11&lt;/sup&gt;</td>
<td>University Physics Laboratory I</td>
</tr>
</tbody>
</table>

3. Courses satisfying the Group II laboratory requirements

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*For further information, see www.provost.cmich.edu/ged.*
Group III. Social Sciences
(At least 6 semester hours)

HON 120 The Individual and Community in Modern Society

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

BLR 325 Women and the Law
CDO 130 Normal Speech and Language Acquisition
ECO 222 Behavioral Economics
HEV 100 Human Growth and Development: Lifespan
HST 228 American Business: A History
PSC 101 Political Behavior
PSY 100 Introduction to Psychology
PSY 334 Psychology of Women
SOC 201 Social Psychology
WST 325 Women and the Law
WST 334 Psychology of Women

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

ANT 170 Cultural Anthropology
BLR 202 Legal Environment of Business
ECO 110 Economics and Society
ECO 280 Economies of the World
ENG 175 The Nature of Language
GEO 121 Cultures of the World
GEO 317 Economic Geography
HEV 212 The Family in Cultural Perspective
HST 106 Twentieth Century: Western World Issues
HST 111 United States to 1865
HST 112 United States, 1865 to the Present
HST 321 U.S. Social History Since 1865
HST 347 Growing Up in America
HST 340 The High Middle Ages
HST 379 Race, Class and Power: South Africa in the 20th Century
HUM 201 The Classical World: Law and Society
HUM 301 Medieval Synthesis: Love in the Middle Ages
HUM 340 Race, Class and Power: South Africa in the 20th Century
HUM 370 The Age of Augustus
JRN 372 International and Cross-cultural Mass Communication
PHL 225 Foundations of Cognitive Science
PHL 325 Philosophy of Mind
PSC 326 Women and Politics
PSC 373 American Individualism
PSC 375 Socialism, Fascism and Liberalism
PSY 225 Foundations of Cognitive Science
PSY 332 Evolutionary Psychology
PSY 382 Perception
PSY 387 Behavioral Neurosciences
REL 207 Women in Religion
REL 235 Religion and Social Issues
REL 334 Death and Dying: Religious Dimensions
SOC 221 Social Problems
SOC 223 Urban Structures and Change
WST 207 Women in Religion
WST 221 Growing Up in America
WST 320 Women in the Economy
WST 326 Women and Politics

4 BLR 325 and WST 325 are the same course.
5 PSY 334 and WST 334 are the same course.
6 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):

ANT 200 Education and Culture
ANT 244 Human Emergence Issues: Multidisciplinary Perspectives
ANT 356 Primate Behavior
ANT 365 Current American Indian Issues
ART 363 Design: The Interface of Art and Industry
BIS 104 Computers and Society
CPS 100 Computers and Society
ECO 230 Women in the Economy
ENG 561 European Romanticism: A Comparative Approach
ENV 101 Introduction to Environmental Studies
GEO 120 Environmental Geography
GRN 247 Intro. to Gerontology: An Interdisciplinary Approach
HEV 252 Dress and Culture
HEV 332 Human Shelter and Environment
HSC 106 Healthy Lifestyles
HST 221 Growing Up in America
HST 340 The High Middle Ages
HST 379 Race, Class and Power: South Africa in the 20th Century
HUM 201 The Classical World: Law and Society
HUM 301 Medieval Synthesis: Love in the Middle Ages
HUM 340 Race, Class and Power: South Africa in the 20th Century
HUM 370 The Age of Augustus
JRN 372 International and Cross-cultural Mass Communication
PHL 225 Foundations of Cognitive Science
PHL 325 Philosophy of Mind
PSC 326 Women and Politics
PSC 373 American Individualism
PSC 375 Socialism, Fascism and Liberalism
PSY 225 Foundations of Cognitive Science
PSY 332 Evolutionary Psychology
PSY 382 Perception
PSY 387 Behavioral Neurosciences
REL 207 Women in Religion
REL 235 Religion and Social Issues
REL 334 Death and Dying: Religious Dimensions
SOC 221 Social Problems
SOC 223 Urban Structures and Change
WST 207 Women in Religion
WST 221 Growing Up in America
WST 320 Women in the Economy
WST 326 Women and Politics

1 CPS 100 and BIS 104 are the same course.
2 ECO 230 and WST 230 are the same course.
3 HST 221 and WST 221 are the same course.
4 HST 379 and HUM 340 are the same course.
5 PHL 225 and PSY 225 are the same course.
6 PSC 326 and WST 326 are the same course.
7 REL 207 and WST 207 are the same course.
Group IV.

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 103, H. I., for details). OR

Option 3 Global Studies or Foreign Language Courses At least 3 semester hours from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANT 175</td>
<td>Archaeology of the Americas</td>
</tr>
<tr>
<td>ANT 321</td>
<td>Cultures of Latin America</td>
</tr>
<tr>
<td>ANT 322</td>
<td>Cultures of Africa</td>
</tr>
<tr>
<td>ANT 324</td>
<td>Cultures of the South Pacific</td>
</tr>
<tr>
<td>ANT 326</td>
<td>Chinese Societies</td>
</tr>
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<td>CHN 101</td>
<td>Elementary Chinese I</td>
</tr>
<tr>
<td>CHN 102</td>
<td>Elementary Chinese II</td>
</tr>
<tr>
<td>ECO 281</td>
<td>Economic Development of the Pacific Rim</td>
</tr>
<tr>
<td>EUR 303</td>
<td>Comparative Politics: Eastern Europe</td>
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<td>EUR 304</td>
<td>The European Economy</td>
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<td>FRN 101</td>
<td>Elementary French I</td>
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<td>FRN 102</td>
<td>Elementary French II</td>
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<td>FRN 201</td>
<td>Intermediate French I</td>
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<td>FRN 202</td>
<td>Intermediate French II</td>
</tr>
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<td>GEO 373</td>
<td>Latin America</td>
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<tr>
<td>GER 101</td>
<td>Elementary German I: Language and Culture</td>
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<tr>
<td>GER 102</td>
<td>Elementary German II: Language and Culture</td>
</tr>
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<td>GER 201</td>
<td>Intermediate German I</td>
</tr>
<tr>
<td>GER 202</td>
<td>Intermediate German II</td>
</tr>
<tr>
<td>HEV 318</td>
<td>Indigenous Families and Survival: A Global Perspective</td>
</tr>
<tr>
<td>HST 163</td>
<td>The Latin American Experience</td>
</tr>
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<td>HST 168</td>
<td>The Far East</td>
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<td>HST 176</td>
<td>The African Experience</td>
</tr>
<tr>
<td>HST 236</td>
<td>The Near East to Alexander</td>
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<td>HST 237</td>
<td>The Middle East Since Muhammad</td>
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<td>Elementary Japanese I</td>
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<td>JPN 102</td>
<td>Elementary Japanese II</td>
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<td>Intermediate Japanese I</td>
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<td>LAT 101</td>
<td>Elementary Latin I</td>
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<td>OJB 101</td>
<td>Elementary Ojibwe I</td>
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<td>PHL 305</td>
<td>Chinese Philosophy</td>
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<td>PSC 340</td>
<td>African Political Systems and Processes</td>
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<td>PSC 341</td>
<td>Comparative Politics: Eastern Europe</td>
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<td>PSC 343</td>
<td>Southeast Asian Political Systems and Processes</td>
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<tr>
<td>PSC 344</td>
<td>East Asian Political Systems and Processes</td>
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<td>PSC 347</td>
<td>Comparative Politics: Western Europe</td>
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<tr>
<td>PSC 348</td>
<td>Latin American Political Systems</td>
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<tr>
<td>PSC 349</td>
<td>Panama: Exploring Politics and Society in a Central American Nation</td>
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<td>REL 220</td>
<td>Religious Traditions of China</td>
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<td>REL 222</td>
<td>Religious Traditions of India</td>
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<td>REL 314</td>
<td>Islam</td>
</tr>
<tr>
<td>REL 320</td>
<td>The Buddhist Tradition</td>
</tr>
<tr>
<td>RUS 101</td>
<td>Elementary Russian I</td>
</tr>
<tr>
<td>SOC 310</td>
<td>Life in Russia Today</td>
</tr>
<tr>
<td>SPN 101</td>
<td>Elementary Spanish I</td>
</tr>
<tr>
<td>SPN 102</td>
<td>Elementary Spanish II</td>
</tr>
<tr>
<td>SPN 201</td>
<td>Intermediate Spanish I</td>
</tr>
<tr>
<td>SPN 202</td>
<td>Intermediate Spanish II</td>
</tr>
</tbody>
</table>

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.

14 EUR 303 and PSC 341 are the same course.

Group IV.

Subgroup C. Studies in Racism and Cultural Diversity in the United States
(At least 3 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 320</td>
<td>North American Indian Cultures</td>
</tr>
<tr>
<td>ANT 368</td>
<td>Hispanic Cultures in the U.S.</td>
</tr>
<tr>
<td>BLR 222</td>
<td>The Search for Racial Justice through Law</td>
</tr>
<tr>
<td>BLR 365</td>
<td>Native American Justice through Law</td>
</tr>
<tr>
<td>ENG 329</td>
<td>African American Literature</td>
</tr>
<tr>
<td>ENG 582</td>
<td>Cultural Pluralism in Young Adult and Children’s Literature</td>
</tr>
<tr>
<td>HEV 110</td>
<td>Oppression: Roots and Impact on Human Development in the United States</td>
</tr>
<tr>
<td>HST 323</td>
<td>History of Native Americans</td>
</tr>
<tr>
<td>HST 324</td>
<td>African-American History to 1915</td>
</tr>
<tr>
<td>HST 325</td>
<td>African-Americans in Twentieth Century America</td>
</tr>
<tr>
<td>JRN 380</td>
<td>Racial Diversity: Mass Media’s Role</td>
</tr>
<tr>
<td>LAR 145</td>
<td>Racism and Diversity in America</td>
</tr>
<tr>
<td>PSC 325</td>
<td>The Civil Rights Movement</td>
</tr>
<tr>
<td>PSC 325</td>
<td>The Civil Rights Movement</td>
</tr>
<tr>
<td>PSC 340</td>
<td>African Political Systems and Processes</td>
</tr>
<tr>
<td>PSC 341</td>
<td>Comparative Politics: Eastern Europe</td>
</tr>
<tr>
<td>PSC 343</td>
<td>Southeast Asian Political Systems and Processes</td>
</tr>
<tr>
<td>PSC 344</td>
<td>East Asian Political Systems and Processes</td>
</tr>
<tr>
<td>PSC 347</td>
<td>Comparative Politics: Western Europe</td>
</tr>
<tr>
<td>PSC 348</td>
<td>Latin American Political Systems</td>
</tr>
<tr>
<td>PSC 349</td>
<td>Panama: Exploring Politics and Society in a Central American Nation</td>
</tr>
<tr>
<td>REL 140</td>
<td>Religion, Race, and Discrimination in America</td>
</tr>
<tr>
<td>REL 240</td>
<td>African-American Religion</td>
</tr>
<tr>
<td>REL 342</td>
<td>From Spirituals to Gospel</td>
</tr>
<tr>
<td>REL 345</td>
<td>The Civil Rights Movement</td>
</tr>
<tr>
<td>REL 347</td>
<td>African American Reflections on Racism</td>
</tr>
<tr>
<td>SOC 323</td>
<td>Racism and Inequality</td>
</tr>
<tr>
<td>SOC 345</td>
<td>The Civil Rights Movement</td>
</tr>
<tr>
<td>WST 380</td>
<td>Racial Diversity: Mass Media’s Role</td>
</tr>
</tbody>
</table>

13 PHL 345, PSC 325, REL 345 and SOC 345 are the same course.
14 JRN 380 and WST 380 are the same course.

Only one time may you take a second course with the same designator to satisfy your University Program requirement, with the exception of a sequence of foreign language courses with the same designator and courses taken for study abroad credit (see Subgroup IV-B).
Competency Requirements

CMU expects its graduates to be competent in written English, oral English, and mathematics. Prior to graduation, all students must demonstrate their competency as detailed in this section.

Written English Competency Requirement

To satisfy the Written English Competency Requirement, students must complete three separate but related tasks:

I. Freshman Composition

Students should satisfy the requirement for freshman composition during their freshman year. Students can satisfy the requirement in one of three ways:

1. Earning a grade of C (2.0) or better in ENG 101, Freshman Composition. (Students should be aware that ENG 101 has a prerequisite of ENG 100 or a satisfactory Freshman Writing Placement Score.) OR

2. Successfully completing one of the following: CLEP English Composition General Examination with Essay, the AP English Language and Composition Examination, the AP English Composition and Literature Examination, or the International Baccalaureate English Language Examination (higher or subsidiary level), OR

3. Earning a grade of C (2.0) or better in ENG 103, Freshman Writing (ENG 103 has ENG 099, Writing Workshop, as corequisite).

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 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. Advanced Composition Requirement

Students must complete a course in advanced composition. This should normally be done during the sophomore or junior year. This requirement is met by earning a grade of C or better in one of the ENG 201 advanced composition courses. Selection of the appropriate course should be made in consultation with the student’s advisor.

III. 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.

Oral English Competency Requirement

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:
   - SDA 101 Introduction to Speech Communication
   - SDA 302 Voice and Diction
   - IPC 267 Introduction to Debate
   - IPC 269 Practicum in Debate - Forensics
   - IPC 357 Public Speaking
   - TAI 170 Fundamentals of Interpretative Reading

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 an 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 may be obtained by contacting the Office of Academic Affairs, 312 Warriner Hall, 774-3631.

Screening for Speech and Hearing Disorders

The screening for speech and hearing disorders for option two above incurs a cost of $10.00. 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: SDA 101, SDA 302, TAI 170, IPC 357, IPC 267, ENG 199, and HON 110. Teacher education students transferring speech classes to CMU should take the test 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 testing may be arranged by calling the CMU Speech and Hearing Clinic. Testing 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 Centrals Scholars. Honors students must still fulfill parts II and III of the Written English Competency and the Mathematics Competency requirements as specified in those sections.

Written and Oral English Competencies for Students from Other Nations

Those students from other nations who are required to take ENG 198 and ENG 199, American Language for International Students, will fulfill the Basic Freshman Composition portion of the Written English Competency Requirement and the Oral English Competency Requirement by earning a C (2.00) or better in the course. Students must still fulfill parts II and III of the Written English Competency and the Mathematics Competency requirements as specified in those sections.
Mathematics Competency Requirement

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).

Students who have not satisfied the requirement by the time they have earned at least 54 hours of academic credit should enroll in an appropriate mathematics class for the next semester.

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 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. 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.
3. A competency requirement in a specific area, once satisfied, remains valid until the student graduates.
4. 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 Speech Communication and Dramatic Arts Mathematics Competency- Department of Mathematics
5. 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.

Additional General Education for Teacher Certification

The State Board of Education requires a minimum of 40 semester hours of General Education for teacher certification. Each teaching degree specifies the way in which this requirement is to be met.
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 interdisciplinary and interdepartmental majors and minors is also offered.

Requirements for majors and minors are listed in the individual departmental descriptions, interdepartmental, and interdisciplinary sections of this Bulletin. A major consists of at least thirty semester hours; a minor, at least twenty semester hours. The courses to constitute must be chosen subject to the approval of your departmental, interdisciplinary, or interdepartmental advisor. Degree requirements detail which majors and minors are permitted on each degree. Central Michigan University credits included in majors and minors used to meet graduation requirements must average 2.0 or better. You should note, however, that some majors and minors have higher grade point requirements. Be sure to check the Admissions, Retention and Termination Standards for your major.

When you decide on your major, you should contact the departmental office of that major to be assigned an advisor. (Example: history majors should contact the Department of History.) You and your major advisor will discuss your educational goals and you will complete a “Major Authorization Form.” This form originates in the department of your major and details course requirements for your major (and concentration in the major when applicable*), and is signed by both you and the advisor for your major. If you are majoring in an interdisciplinary or interdepartmental area or special program, this form is obtained from the appropriate advisor. The Class Schedule, printed each semester, lists departments and interdisciplinary and interdepartmental advisors for majors and minors. Students need to officially declare their major by the time they earn 56 hours.

To be assigned a minor advisor, or to complete a “Minor Authorization Form,” you will follow the same procedures to those listed above.

*A concentration is a distinct and specialized program of study authorized within a student’s major. A minimum of twelve hours is required for an undergraduate concentration. All university-approved concentrations will be listed on the student’s transcript.

### Policies Concerning Majors and Minors

The following policies concerning majors and minors may apply to your degree work at CMU.

**B.S. in Ed.** If you are following either the Elementary or Secondary Certification under the Bachelor of Science in Education degree, the major and minor presented for certification must be in different subjects.

**Non-Teaching.** Under a non-teaching degree the minor may not have the same name as the major.

**Courses fulfilling more than one requirement.** Hours which are counted toward departmental majors and minors may also be counted as partial fulfillment of other departmental, interdisciplinary and/or interdepartmental major or minor requirements, provided that: a.) the student offers the required number of semester hours for graduation, and b.) no course is counted toward both a major and a minor with the same name.

This rule does not apply to majors and minors on the B.S. in Ed. degree.

Degree, major or minor from another Bulletin. Most students will complete requirements for graduation following the Bulletin in effect at the time of their initial registration. A Bulletin published after initial registration may be chosen by the student when it is to his or her advantage. However, no student may graduate under the requirements of a Bulletin published more than seven calendar years prior to the date of the student’s graduation. Students following a program which leads to teacher certification have different limitations and should consult the section in this Bulletin titled “Standards Leading to Teacher Certification.” An undergraduate student completing graduation and degree requirements on a degree program appearing in any CMU Bulletin may elect either majors or minors on that same degree in a subsequent CMU Bulletin. This option is available when approved by an appropriate departmental advisor and noted on the student’s major or minor authorization form.

Additional major or minor. In addition to satisfying major and minor requirements, you may request authorization of an additional major or minor listed in the Bulletin even if it is not listed as acceptable for your chosen degree. Upon completion of your degree and graduation requirements the additional major or minor, if successfully completed, will be recorded.

### Undergraduate Subtitled Courses.

Credit earned in undergraduate courses subtitled Courses, Studies, Topics, Issues, or Workshops (including Special, Advanced, or Selected) may not constitute more than 50 percent of an undergraduate major or minor. Graduate and undergraduate courses which are subject to limitation under the policy on unspecified content or variable credit are listed in each department.

### Majors and Minors Chart

The following chart identifies available majors and minors at CMU, lists the degree program(s) to which the majors may be applied, and indicates if teaching certification may be earned.

The chart is divided by teaching and non teaching majors and minors. If you want to teach, teaching certification is usually pursued on the B.S. in Ed. degree. There are, however, several degrees (B.A., B.S., or B.A.A.) that allow you to earn teaching certification for those majors and minors that indicate certification is available. Consult your departmental advisor.

Sometimes majors or minors are not listed under the titles for which you are searching. For example, there is a Physical Education major for students who want teaching certification and a Sport Studies major for those who want physical education studies without teaching certification. There is a Speech major for students who want communications studies with teaching certification, and an Interpersonal and Public Communication major for those who want communications studies without teaching certification. Students of speech-language pathology need to look under communication disorders. Students pursuing studies in hotel and restaurant management want the Hospitality Services Administration major. The music department offers a variety of specialties, but each is studied under the Music major. If you can’t find a particular major or minor on this chart by name, consult the appropriate departmental description in this catalog or check the Bulletin’s index under the subject name.

To find the degree and graduation requirements for any specific major or minor, consult the index for reference to the departmental listing. Direct your questions concerning any major or minor to the appropriate department.

A listing of departmental, interdisciplinary, and interdepartmental advisors may be found by consulting a current “Class Schedule” published every semester.
<table>
<thead>
<tr>
<th>Major or Minor</th>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major or Minor (<em>offers concentrations</em>)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major (and applicable degrees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minor</td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td></td>
<td></td>
</tr>
<tr>
<td>Actuarial Science</td>
<td>Yes (B.A.; B.S.)</td>
<td>No</td>
</tr>
<tr>
<td>Accounting</td>
<td>Yes (B.S. in B.A.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Accounting Information Systems</td>
<td>Yes (B.S. in B.A.)</td>
<td>No</td>
</tr>
<tr>
<td>Advertising</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Allied Health</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>American Ethnic Studies</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>American Indian Studies</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Anthropology</td>
<td>Yes (B.A.; B.S.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Apparel Merchandising and Design*</td>
<td>Yes (B.A.; B.A.A.; B.S.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Art *</td>
<td>Yes (B.A.; B.A.A.; B.F.A.; B.S.)</td>
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</tr>
<tr>
<td>Art History</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Athletic Coaching</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Athletic Training/Sports Medicine</td>
<td>Yes (B.A.; B.A.A.; B.S.)</td>
<td>No</td>
</tr>
<tr>
<td>Bilingual Bicultural Education-Ojibwe</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Bilingual Bicultural Education-Spanish</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Biology</td>
<td>Yes (B.S. in Ed., Secondary and Secondary with Emotional or Cognitive Impairment Endorsement)</td>
<td>Yes</td>
</tr>
<tr>
<td>Biology/Biomedical Science</td>
<td>Yes (B.A.; B.S.)</td>
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<td>Biology/general option</td>
<td>Yes (B.A.; B.S.) also see below</td>
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<td>Biology/medical/technology</td>
<td>Yes (B.A.; B.S.)</td>
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<td>Biology/microscopy option</td>
<td>Yes (B.A.; B.S.)</td>
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</tr>
<tr>
<td>Biology/natural resources option</td>
<td>Yes (B.A.; B.S.)</td>
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</tr>
<tr>
<td>Biology/pregraduate, preprofessional option</td>
<td>Yes (B.A.; B.S.)</td>
<td>No</td>
</tr>
<tr>
<td>Broadcast &amp; Cinematic Arts</td>
<td>Yes (B.A.; B.A.A.; B.F.A.; B.S.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Business Administration</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Business Teacher Education (BTE) *</td>
<td>Yes (B.S. in Ed., Secondary, and Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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</tr>
<tr>
<td>Chemistry</td>
<td>Yes (B.A.; B.S.; B.S. in Ed., Secondary, and Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<tr>
<td>Chemistry-Physics</td>
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<tr>
<td>Child Development *</td>
<td>Yes (B.A.; B.A.A.; B.S.; B.S. in Ed., Elementary Requires two substantive minors; consult advisor in HEV prior to selecting this major.)</td>
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<tr>
<td>Cognitive Science</td>
<td>Yes (B.A.; B.S.)</td>
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</tr>
<tr>
<td>Communication Disorders</td>
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<tr>
<td>Computer Science</td>
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<tr>
<td>Computer Science-Mathematics</td>
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<tr>
<td>Computer Technology</td>
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<tr>
<td>Computer-Integrated Manufacturing</td>
<td>Yes (B.A.; B.S.)</td>
<td>No</td>
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<tr>
<td>Dance</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Dietetics</td>
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</tr>
<tr>
<td>Earth Science *</td>
<td>Yes (B.A.; B.S.; B.S. in Ed., Secondary, and Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<tr>
<td>Economics</td>
<td>Yes (B.A.; B.S.; B.S. in B.A.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>Yes (B.S.E.E.)</td>
<td>No</td>
</tr>
<tr>
<td>Electronic Engineering Technology</td>
<td>Yes (B.S.E.T.)</td>
<td>No</td>
</tr>
<tr>
<td>English *</td>
<td>Yes (B.A.; B.S.; B.S. in Ed., Elementary, Secondary, and Secondary with Emotional or Cognitive Impairment Endorsement)</td>
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<tr>
<td>English as a Second Language</td>
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</tr>
<tr>
<td>Environmental Studies*</td>
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</tr>
<tr>
<td>Entrepreneurship</td>
<td>Yes (B.A.A.)</td>
<td>Yes</td>
</tr>
<tr>
<td>European Studies</td>
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<td>Yes</td>
</tr>
<tr>
<td>Exercise Science</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Major or Minor (*offers concentrations)</td>
<td>Major (and applicable degrees)</td>
<td>Minor</td>
</tr>
<tr>
<td>----------------------------------------</td>
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</tr>
<tr>
<td>Major or Minor (*offers concentrations)</td>
<td>Major (and applicable degrees)</td>
<td>Minor</td>
</tr>
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<td>Family Life &amp; Human Sexuality</td>
<td>No</td>
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<tr>
<td>Family Studies</td>
<td>Yes (B.A.; B.A.A.; B.S.)</td>
<td>No</td>
</tr>
<tr>
<td>Finance</td>
<td>Yes (B.S. in B.A.)</td>
<td>Yes</td>
</tr>
<tr>
<td>Foodservice Administration</td>
<td>Yes (B.A.; B.A.A.; B.S.)</td>
<td>Yes</td>
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<tr>
<td>French *</td>
<td>Yes (B.A.; B.S.; B.S. in Ed., Elementary, Secondary)</td>
<td>Yes</td>
</tr>
<tr>
<td>General Business Administration *</td>
<td>Yes (B.S. in B.A.)</td>
<td>No</td>
</tr>
<tr>
<td>General Management</td>
<td>Yes (B.S. in B.A.)</td>
<td>Yes</td>
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<td>International Business</td>
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## Majors and Minors

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Interdepartmental and Interdisciplinary Majors and Minors

This section lists majors and minors that are either interdepartmental or 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.

Interdepartmental Majors and Minors

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 provided 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 (18 hours):
- JRN 302 (3) Introduction to Graphics and Visual Communication
- MKT 300 (3) Introduction to Marketing
- JRN 360 (3) Advertising Principles
- JRN 365 (3) Advertising Media
- OR MKT 315 (3) Advertising Media
- MKT 410 (3) Advertising Management
- JRN 465 (3) Advertising Copy and Design

Electives (6 hours):
Electives in advertising approved by the advertising minor advisor.

Total: 24 semester hours

Interdepartmental Business Administration Minor
Advisor: Linda Wicander (105 Grawn, 774-3124)

This major 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. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

Required Courses (46 or 49 hours):
- CHM 131 (4) Introduction to Chemistry I
- CHM 132 (4) Introduction to Chemistry II
- OR as an alternative to the above two courses: CHM 161 (5) Principles of Chemistry
- CHM 211 (4) Quantitative Analysis
- CHM 331 (3) Inorganic Chemistry
- CHM 345 (3) Organic Chemistry I
- CHM 346 (3) Organic Chemistry II
- CHM 349 (2) Introduction to Organic Chemistry Lab
- PHY 145 (4) University Physics I
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Lab I
- PHY 176 (1) University Physics Lab II
- PHY 231 (1) Electronic Instrumentation
- PHY 247 (4) Introduction to Modern Physics
- PHY 277 (1) University Physics Lab III
- PHY 322 (3) Intermediate Mechanics
- PHY 332 (3) Electricity and Magnetism
- CHM/PHY 505 (3) Teaching Chemistry/Physics in the Secondary School
- CHM/PHY 507 (1) Field Experience in Teaching Chemistry/Physics

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.

Additional requirements:
1. The student must have completed the specified chemistry courses for the Chemistry-Physics major, in addition to CHM/PHY 505 (3) and 507 (1), before approval for student teaching can be given. The student must have a minimum grade point average of 2.70 in those 24-27 hours of courses. Transfer chemistry credit will be accepted from regionally accredited institutions, but at least six of the hours must be CMU classes with a minimum grade point average of 2.70. At least 12 of the required chemistry credit hours must have been received within 10 years of application for student teaching.

2. In order for a student to be approved for student teaching in chemistry, two CMU chemistry faculty must, at the student’s request, provide completed department student evaluation forms. Students must also furnish transcripts showing all chemistry course credits.

3. Each student must demonstrate competence in chemistry by passing an American Chemical Society standardized chemistry examination at a specified level in order to be approved for student teaching.

For students seeking the Physics Department’s recommendation for student teaching in physics, the following requirements must be met:
1. At least 20 hours of physics (including CHM/PHY 505) must be completed with a grade point average of 2.7.
2. At least 6 hours of physics (excluding CHM/PHY 505) must be completed at CMU.

Total: 46 or 49 semester hours
Interdepartmental

Computer-Integrated Manufacturing Major

B.A.; B.S. (Plan A or B) degrees

This major offers an integrated program of coursework for students planning CIM/CAD/CAM related careers. The student will have an advisor in both the Computer Science and Industrial and Engineering Technology Departments.

Required CPS Courses (18 hours):
- CPS 170 (1) UNIX
- CPS 180 (3) Principles of Computer Programming
- CPS 181 (3) Introduction to Data Structures
- CPS 210 (3) Assembly Language and Computer Organization
- CPS 280 (2) FORTRAN (1) and any other language (1)
- CPS 340 (3) Advanced Data Structures and Algorithms
- CPS 360 (3) Computer Design and Architecture

Required IET Courses (21 hours):
- IET 154 (3) Engineering Design Graphics
- IET 359 (3) Computer-Aided Drafting
- IET 375 (3) Robotics
- IET 377 (3) N/C Programming
- IET 457 (3) Computer-Aided Design
- IET 477 (3) Computer-Assisted N/C Programming
- IET 502 (3) Computer Applications in Industry

IET Electives (6 hours) selected with the approval of an IET advisor.

CPS Electives (6 hours) at CPS 280 level or above and selected with the approval of a CPS advisor.
- IET 170 (3) Metal Technology
- IET 326 (3) Manufacturing Methods Analysis
- IET 350 (3) Mechanism Design
- IET 354 (3) Descriptive Geometry
- IET 379 (3) Mechanics of Materials
- IET 425 (3-6) Industrial Internship
- IET 426 (3) Plant Layout and Materials Handling
- IET 450 (3) Machine Design Graphics
- IET 455 (3) Tool Design
- IET 458 (3) Advanced Computer-Aided Design
- CPS 282 (3) Introduction to Multimedia Design
- CPS 370 (3) File Manipulation Techniques
- CPS 380 (3) Microcomputer Architecture
- CPS 410 (3) Software Engineering
- CPS 420 (3) Programming
- CPS 480 (3) Introduction to Artificial Intelligence
- CPS 482 (3) Advanced Multimedia Design
- CPS 541 (3) Data Bases
- CPS 565 (3) Computer Networks I
- CPS 575 (3) Computer Graphics
- CPS 576 (3) Digital Image Processing

TOTAL: 51 semester hours

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 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.

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-Integrated manufacturing majors are required to meet with an IET (or 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.

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 Computer Science Courses (21 hours):
- CPS 180 (3) Principles of Computer Programming
- CPS 181 (3) Introduction to Data Structures
- CPS 210 (3) Assembly Language and Computer Organization
- CPS 340 (3) Advanced Data Structures and Algorithms
- CPS 360 (3) Computer Design and Architecture
- CPS 410 (3) Software Engineering
- CPS 450 (3) Programming Language Concepts

Required Mathematics Courses (27 hours):
- MTH 132 (4) Calculus I
- MTH 133 (4) Calculus II
- MTH 175 (3) Discrete Mathematics
- MTH 223 (3) Linear Algebra and Matrix Theory
- MTH 233 (4) Calculus III
- MTH 323 (3) Introduction to Analysis
- MTH 438 (3) Numerical Analysis I
- MTH 523 (3) Modern Algebra I

Select electives (11 hours), approved by your advisor, from the following:
- CPS 282 (3) Introduction to Multimedia Design
- CPS 370 (3) File Manipulation Techniques
- CPS 380 (3) Microcomputer Architecture
- CPS 395 (1-9) Internship in Computer Science
- CPS 420 (3) Windows Programming
- CPS 468 (3) Systems Programming and Software
- CPS 470 (3) Operating Systems
- CPS 480 (3) Introduction to Artificial Intelligence
- CPS 482 (3) Advanced Multimedia Design
- CPS 530 (3) Simulation of Discrete Event Systems
- CPS 541 (3) Databases
- CPS 560 (3) Digital Computer Design
- CPS 575 (3) Computer Graphics
- CPS 596 (1-6) Special Topics in Computer Science
- CPS 597 (1-6) Independent Study
- MTH 334 (3) Differential Equations
- MTH 375 (3) Discrete Structures
- MTH 439 (3) Numerical Analysis II
- MTH 520 (3) Optimization Theory
- MTH 521 (3) Theory of Numbers
- MTH 545 (3) Introduction to Point-Set Topology
- MTH 552 (3) Advanced Calculus I
- MTH 553 (3) Advanced Calculus II
- MTH 570 (3) Mathematical Logic
- MTH 578 (3) Applied Combinatorics
- MTH 586 (3) Operations Research I
- MTH 587 (3) Operations Research II
- STA 382 (3) Elementary Statistical Analysis
- STA 580 (3) Applied Statistical Methods
- STA 584 (3) Mathematical Statistics I
- STA 585 (3) Mathematical Statistics II

Total: 59 semester hours
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 Industrial and Engineering Technology Departments.

**Required CPS Courses (23 hours):**
- CPS 180 (3) Principles of Computer Programming
- CPS 181 (3) Introduction to Data Structures
- CPS 210 (3) Assembly Language and Computer Organization
- CPS 280 (2) FORTRAN (1) and any other language (1)
- CPS 340 (3) Advanced Data Structures and Algorithms
- CPS 360 (3) Computer Design and Architecture
- CPS 380 (3) Microcomputer Architecture
- CPS 468 (3) System Programming and Software

**Required IET Courses (24 hours):**
- IET 292 (3) DC Circuit Analysis
- IET 293 (3) AC Circuit Analysis
- IET 390 (3) Discrete Device Drive
- IET 392 (3) Linear Electronics
- IET 394 (3) Digital Electronics
- IET 492 (3) Interfacing with Programmable Devices
- IET 494 (3) Data Acquisition and Control
- IET 594 (3) Research and Development Electronics

As part of the major, the student shall also select from the following a 4-5 hour set of alternatives:

a. PHY 130 and PHY 170 (corequisite course);

OR b. PHY 145 and PHY 175 (corequisite course);

OR c. CHM 131;

OR d. CHM 161.

**Total: 51-52 semester hours**

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 majors are required to meet with an IET (or 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.

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.

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 Industrial and Engineering Technology. Students who wish additional information or a minor authorization should consult with an advisor in the department.

**Required Courses (21-23 hours):**
- IET 227 (3) Principles of Accident Prevention
- IET 327 (3) Industrial Safety
- IET 425 (2-6) Industrial Internship
- IET 427 (3) Product Reliability and Safety
- IET 527 (3) Industrial Safety Management
- HSC 205 (2) Emergency Health Care
- HSC 352 (3) Environmental Health
- HSC 529 (1) Alcohol Education Workshop*
- HSC 530 (1) Drug Abuse Workshop*

**Suggested Electives (1-3 hours):**
- FIN 257 (3) Risk Management
- HSC 235 (3) Mood Modifiers
- HSC 537 (1) Stress Reduction Workshop
- IET 524 (3) Technology and Environment

* HSC 235 may be submitted for HSC 529 or HSC 530.

**Total: 24 semester hours**

**Note:**

As you select from our majors and minors remember that you are pursuing a degree, and must meet all the degree requirements as well as the major and minor requirements. Students pursuing the Industrial Safety minors are required to meet with an IET 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.

International Business Major
B.S. in B.A. degree

This major is listed in the College of Business Administration section. See the index for the page number. Advisor is assigned by the Department of Management, 774-3193.
Interdepartmental

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):
- PSC 105 (3) Introduction to American Government and Politics
- PSC 261 (3) State and Local Government
- JRN 202 (3) Writing for the Mass Media
- JRN 350 (3) Public Relations Principles and Practices

Electives (12 hours) to be selected in consultation with the minor advisor:
- PSC 210 (3) Introduction to Public Administration
- PSC 313 (3) Budgetary Processes in the United States
- PSC 320 (3) The American Legislative Process
- PSC 327 (3) Lobbying and Interest Group Behavior
- PSC 395 (3) Internship in Government and Politics
- JRN 556 (3) Public Relations Seminar
- JRN 559 (3) Public Relations Internship
- JRN 360 (3) Advertising Principles
- JRN 450 (3) Public Relations Writing
- JRN 551 (3) Case Studies in Public Relations

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.

Interdisciplinary Majors and Minors

Interdisciplinary

Actuarial Science Major
B.A.; B.S. degrees

For information, contact T. Miles, advisor, 774-6518, Pearce 211, miles1tj@cmich.edu.

Why Study Actuarial Science?
Actuaries analyze 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.

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.

This major consists of 60 hours of coursework 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. 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:
- MTH 132 (4) Calculus I
- MTH 133 (4) Calculus II
- MTH 223 (3) Linear Algebra and Matrix Theory
- MTH 233 (4) Calculus III
- MTH 332 (3) Advanced Calculus I
- MTH 539 (3) Mathematical Foundations of Actuarial Science
- STA 575 (3) Introduction to Statistical Packages
- STA 580 (3) Applied Statistical Methods I
- STA 584 (3) Mathematical Statistics I
- STA 585 (3) Mathematical Statistics II
- ACC 201 (3) Concepts of Financial Accounting
- ACC 202 (3) Concepts of Managerial Accounting
- BLR 202 (3) Legal Environment of Business
- CPS 150 (2) FORTRAN Programming
- ECO 201 (3) Principles of Macroeconomics
- ECO 202 (3) Principles of Microeconomics
- ECO 365 (3) Intermediate Microeconomic Theory
- FIN 257 (3) Risk Management
- FIN 332 (3) Managerial Finance

Total: 62 semester hours

Interdisciplinary

American Indian Studies Minor
B.A., B.A.A., and B.S. degrees

Required Courses (12 hours):
- Ojibwe Language (6 hours):
  - OJB 101 (3) Elementary Ojibwe I
  - OJB 102 (3) Elementary Ojibwe II
  - OJB 201 (3) Intermediate Ojibwe I
  - OJB 202 (3) Intermediate Ojibwe II

Other Required Courses (6 hours):
- ANT 320 (3) North American Indian Cultures
- HST 323 (3) History of Native Americans

Electives (12 hours):
- ANT 175 (3) Archeology of the Americas
- ANT 365 (3) Current American Indian Issues
- EDU 516 (3) Teaching Native American History and Culture
- ENG 328 (3) Literature of North American Indians
- PSY 533 (3) Psychology of Racism
- SOC 323 (3) Racism and Inequality

Up to 6 hours of additional American Indian language, special topics, or independent study with approval of the minor advisor.

Total: 24 semester hours
Bilingual Bicultural Education

Spanish Minor

This minor is a multidisciplinary 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.

Corequisites and prerequisites. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Required Courses (15 hours):
- EDU 513 (3) Foundations of Bilingual Bicultural Education
- EDU 514 (3) Methods and Materials for Bilingual Education
- EDU 516 (3) Teaching Native American History and Culture
- ENG 375 (3) Introduction to Linguistics
- ENG 571 (3) Teaching English to Speakers of Other Languages

Electives (9 hours) to be selected in consultation with the advisor.

Area I (3 hours):
- CDO 130 (3) Normal Speech and Language Acquisition
- SPE 550 (3) Teaching Culturally Diverse Students
- EDU 506 (3) Principles and Techniques for Individualizing Instruction

Area II (6 hours):
- ANT 175 (3) Archeology of the Americas
- ANT 200 (3) Education and Culture
- ANT 320 (3) North American Indian Culture
- ANT 365 (3) Current American Indian Issues
- ENG 328 (3) Literature of the North American Indian
- HST 323 (3) History of Native Americans
- SOC 323 (3) Racism and Inequality

Total: 24 semester hours

Cognitive Science Major

B.A.; B.S. degrees

The major is Cognitive Science consists of coursework in Computer Science, Philosophy and Psychology. This major consists of 27 hours in the core, 12 hours of electives, and up to 20 hours of corequisites and prerequisites. A total of 59 semester hours may be required. The objectives of the program are to give you (1) a balanced education in the study of cognition from the perspectives of computer science, philosophy, and psychology; (2) a current education in the most recent approaches to cognitive modeling in each of the three disciplines; (3) a sound preparation for career opportunities or further professional study in the areas of industry and research that are direct consequences of the application of computer technology to the study of cognition; and (4) a flexible program allowing you to focus your interest in either of the related disciplines by concentrations of electives in your choice of fields.

Required Courses (27 hours):
- CPS 181 (3) Introduction to Data Structures
- CPS 340 (3) Advanced Data Structures and Algorithms
- CPS 480 (3) Introduction to Artificial Intelligence
- PHL 140 (3) Introduction to Logic
- PHL 320 (3) Theory of Knowledge
- PHL 325 (3) Philosophy of Mind
- PSY 100 (3) Introduction to Psychology
- PSY 382 (3) Perception
- PSY 589 (3) Cognitive Psychology

Electives (12 hours):
- CPS 450 (3) Programming Language Concepts
- CPS 542 (3) Analysis and Design of Algorithms
- CPS 576 (3) Digital Image Processing
- PHL 100 (3) Introduction to Philosophy
- PHL 190 (3) The Nature of Science
- PHL 302 (3) History of Philosophy: Modern Period
- PHL 340 (3) Intermediate Logic
- PHL 390 (3) Philosophy of Science
- PHL 421 (3) Philosophy of Language
- PSY 211 (3) Introduction to Psychological Statistics
- PSY 387 (3) Behavioral Neuroscience
- PSY 330 (3) Social Psychology
- PSY 383 (3) Learning and Memory
- PSY 583 (3) Human Motivation
- PSY 587 (3) Physiological Psychology

Corequisites and prerequisites (up to 20 hours):
- CPS 180 (3) Principles of Computer Programming, prerequisite for CPS 181
- CPS 210 (3) Assembly Language and Computer Organization, prerequisite for CPS 340
- MTH 130 (4) Pre-Calculus Mathematics, prerequisite for MTH 132 and corequisite for CPS 180
- MTH 132 (4) Calculus I, prerequisite for MTH 223 and CPS 340
- MTH 175 (3) Discrete Mathematics, a corequisite for CPS 181
- MTH 223 (3) Linear Algebra, a prerequisite for CPS 340

Note: Some corequisite and prerequisite courses may be waived if you have adequate background.

Total: 39-59 semester hours (up to 20 co- and prerequisite hours)
Interdisciplinary

Earth Science Major

B.A.; B.S. degrees

Advisors: Becker, Francek

1. Core (10 hours):
   ESC 201 (4) Weather
   OR ESC 240 (4) Meteorology
   ESC 205 (3) Oceanography
   GEL 101 (3) Physical Geology

2. Electives (26 hours) selected from:
   ESC 210 (3) Landforms (strongly recommended)
   GEL 102 (1) Physical Geology Laboratory (strongly recommended)
   All ESC, GEL, and AST courses
   GEO 203 (3) Introduction to Geographic Information Science
   GEO 303 (3) Computer Cartography and GIS
   GEO 305 (3) Remote Sensing of the Environment
   GEO 330 (3) Resource Perception and Utilization
   GEO 499 (3) Field Geography
   GEO 500 (3) Advanced Cartography
   GEO 506 (3) Applications in Remote Sensing of the Environment
   GEO 530 (3) Land Use Planning
   BIO 101 (3) General Biology
   OR BIO 105 (3) Introductory Quantitative Biology
   BIO 203 (3) General Botany
   BIO 218 (3) General Zoology
   BIO 229 (3) Nature Study
   BIO 240 (3) Conservation of Natural Resources
   BIO 333 (3) Soils
   BIO 340 (3) Ecology
   CHM 111 (3) The Interaction of Chemistry and Society
   CHM 120 (4) Survey of Chemistry
   CHM 131 (4) Introduction to Chemistry I
   CHM 132 (4) Introduction to Chemistry II
   PHY 130 (4) College Physics I
   PHY 131 (4) College Physics II
   PHY 145 (4) University Physics I
   PHY 146 (4) University Physics II
   PHY 170 (1) College Physics Laboratory I
   PHY 171 (1) College Physics Laboratory II
   PHY 175 (1) University Physics Laboratory I
   PHY 176 (1) University Physics Laboratory II

   Note: At least 15 hours of the major should be at the 300 level or above.

Total: 36 semester hours

Interdisciplinary

Earth Science Minor

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

Advisors: Becker, Francek

1. Requirements (14 hours):
   ESC 201 (4) Weather
   OR ESC 240 (4) Meteorology
   ESC 205 (3) Oceanography
   ESC 210 (3) Landforms
   GEL 101 (3) Physical Geology
   OR GEL 301 (3) Geology and Michigan
   GEL 102 (1) Physical Geology Laboratory

2. Electives (10 hours) selected in consultation with the minor advisor.

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: Kiefer, Nelson

1. Requirements (27-31 hours)
   ESC 201 (4) Weather
   OR ESC 240 (4) Meteorology
   ESC 205 (3) Oceanography
   ESC 210 (3) Landforms
   GEL 101 (3) Physical Geology
   OR GEL 301 (3) Geology and Michigan
   GEL 102 (1) Physical Geology Laboratory
   GEL 201 (3) General Biology
   OR GEL 203 (3) General Zoology
   OR GEL 301 (3) Geology and Michigan
   OR GEL 302 (3) Physical Geology
   OR GEL 304 (3) Energy Resources
   OR OR 304 (3) Ecology
   OR OR 338 (3) Human Ecology
   OR ESC 346 (3) Air Pollution

2. Electives (8-12 hours) selected in consultation with an advisor from the courses listed below, including at least six hours numbered 300 or above.

   ALL ESC, GEL, and AST courses
   GEO 203 (3) Introduction to Geographic Information Science
   GEO 303 (3) Computer Cartography and GIS
   GEO 305 (3) Remote Sensing of the Environment
   GEO 500 (3) Advanced Cartography
   GEO 503 (3) Geographic Information Systems
   GEO 506 (3) Applications in Remote Sensing of the Environment
   BIO 101 (3) General Biology
   OR BIO 105 (3) Introductory Quantitative Biology
   BIO 203 (3) General Botany
   BIO 218 (3) General Zoology
   BIO 229 (3) Nature Study
   BIO 240 (3) Conservation of Natural Resources
   BIO 334 (3) Soil Science
   BIO 340 (3) Ecology
   BIO 541 (3) Wildlife Biology and Management
   CHM 111 (3) The Interaction of Chemistry and Society
   CHM 120 (4) Survey of Chemistry
   CHM 131 (4) Introduction to Chemistry I
   CHM 132 (4) Introduction to Chemistry II
   PHY 130 (4) College Physics I
   PHY 131 (4) College Physics II
   PHY 170 (1) College Physics Laboratory I
   PHY 171 (1) College Physics Laboratory II
   PHY 175 (1) University Physics Laboratory I
   PHY 176 (1) University Physics Laboratory II
   PHY 175 (1) University Physics Laboratory II

Total: 39 semester hours

Interdisciplinary
Interdisciplinary
Earth Science Minor
B.S. in Ed. degree, Provisional Secondary Certification or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement
Advisors: Francek, Kiefer, Nelson, Pape

1. Requirements (24-28 hours):
   - ESC 201 (4) Weather
   - OR ESC 240 (4) Meteorology
   - ESC 205 (3) Oceanography
   - ESC 210 (3) Landforms
   - ESC 400 (3) Earth Science Education
   - GEL 101 (3) Physical Geology
   - OR GEL 301 (3) Geology and Michigan
   - GEL 102 (1) Physical Geology Laboratory
   - GEL 201 (3) Earth History
   - AST 111 (3) Astronomy
   - AND AST 112 (1) Introduction to Astronomical Observations
   - OR AST 260 (4) General Astronomy I
   - AND AST 261 (4) General Astronomy II

2. Electives (0-3 hours) selected in consultation with an advisor from the courses listed below.
   - ALL ESC, GEL, and AST courses
   - GEO 203 (3) Introduction to Geographic Information Science
   - GEO 303 (3) Computer Cartography and GIS
   - GEO 305 (3) Remote Sensing of the Environment
   - GEO 330 (3) Resource Perception and Utilization
   - GEO 500 (3) Advanced Cartography Environment
   - GEO 506 (3) Applications in Remote Sensing of the Environment
   - GEO 550 (3) Geography for Teachers
   - BIO 101 (3) General Biology
   - OR BIO 105 (3) Introductory Quantitative Biology
   - BIO 203 (3) General Botany
   - BIO 218 (3) General Zoology
   - BIO 229 (3) Nature Study
   - BIO 240 (3) Conservation of Natural Resources
   - BIO 334 (3) Soil Science
   - BIO 340 (3) Ecology
   - BIO 541 (3) Wildlife Biology and Management
   - CHM 111 (3) The Interaction of Chemistry and Society
   - CHM 120 (4) Survey of Chemistry
   - CHM 131 (4) Introduction to Chemistry I
   - CHM 132 (4) Introduction to Chemistry II
   - PHY 130 (4) College Physics I
   - PHY 131 (4) College Physics II
   - PHY 170 (1) College Physics Laboratory I
   - PHY 171 (1) College Physics Laboratory II

Total: 27-28 semester hours

Interdisciplinary
Entrepreneurship Minor
Advisor: James Damitio (ABSC 168, 774-3699)

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

Interdisciplinary
Environmental Studies Major
B.A.; B.S. degrees

Environmental Studies is an interdisciplinary major that focuses on the complex relationship between humans and the environment. This program is designed to satisfy the needs of students who desire to work in fields that are explicitly related to the environment as well as to provide valuable information to students who simply care about environmental issues. The Environmental Studies major requires a second major taken in another discipline.

For additional information, please contact Tom Rohrer, Director, 774-4409, 318 Brooks Hall.

All Environmental Studies majors must:
1. elect a concentration from the two outlined below,
2. complete the Environmental Studies common core outlined below,
3. complete a six (6) week Internship Program;
4. earn a minimum cumulative GPA of 2.7.

Environmental Studies
Common Core (22 hours)
   - BIO 240 (3) Conservation of Natural Resources
   - OR GEO 330 (3) Resource Perception and Utilization
   - BIO 340 (3) Ecology
   - BLR 521 (3) Environmental Law and Policy
   - ECO 301 (3) Environmental Economics
   - ENV 101 (3) Introduction to Environmental Studies
   - ENV 400 (1) Environmental Studies Colloquium
   - GEL 100 (3) Introduction to Earth Systems
   - OR GEL 101 (3) Physical Geology
   - OR GEL 105 (3) Environmental Geology
   - OR GEL 130 (3) Earth Processes
   - PSC 261 (3) State and Local Government

Environmental Science Concentration
Required Courses (22-25 hours)
   - BIO 208 (3) Microbiology
   - BIO 334 (3) Soil Science
   - OR ESC 334 (3) Soil Science
   - CHM 131 (4) Introduction to Chemistry I
   - AND CHM 132 (4) Introduction to Chemistry II
   - OR CHM 161 (5) Principles of Chemistry
   - GEL 380 (3) Hydrogeology
   - PHY 130 (4) College Physics I
   - AND PHY 131 (4) College Physics II
   - OR PHY 145 (4) University Physics I
   - AND PHY 146 (4) University Physics II

Electives (12 hours)
   - Six (6) hours from Group A and six (6) hours from Group B below, chosen in consultation with advisor.

Group A
   - BIO 365 (3) Environmental Contaminants
   - BIO 526 (3) Limnology
   - BIO 527 (2) Limnological Methods
   - CHM 345 (3) Organic Chemistry I

(continued)
CHM 346 (3) Organic Chemistry II
CHM 513 (3) Chemistry of Natural Waters
ESC 201 (4) Weather
OR ESC 240 (4) Meteorology
GEL 372 (3) Introduction to Geophysics
GEL 402 (3) Environmental Geochemistry
GEO 203 (3) Introduction to Geographic Information Science
GEO 305 (3) Remote Sensing
GEO 503 (3) Geographic Information Systems
GEO 506 (3) Applications of Remote Sensing to the Environment
GEO 508 (3) Computer Assisted Remote Sensing

Group B

ANT 171 (3) Physical Anthropology
ANT/SOC 370 (3) Global Environmental Issues
OR BLR 410 (3) Regulatory Law
ENV 310 (3) Environmental Issues Management
ESC 305 (3) Oceanography: Economic and Environmental
HSC 352 (3) Environmental Health
HEV 332 (3) Human Shelter
HST 322 (3) Westward Movement in America
IET 525 (3) Hazardous Materials Technology
JRN 517 (3) Hazardous Materials Technology
PHL 118 (3) Moral Problems
PSC 105 (3) Introduction to American Government and Politics
PSY 387 (3) Behavioral Neural Science
PSY 583 (3) Human Motivation
REL 235 (3) Religion and Social Issues

Total: 56-57 semester hours

Environmental Studies Minor
B.A.A.; B.S. in B.A. degrees

This minor, available to students on the B.A.A. degree and B.S. in B.A. degree, offers an interdisciplinary program in environmental studies for students earning degrees where completing a second major would not be feasible.

For additional information, please contact Tom Rohrer, Director, 774-4409, 318 Brooks Hall.

Required Courses (19-23 hours)

BIO 240 (3) Conservation of Natural Resources
OR GEO 330 (3) Resource Perception and Utilization
BIO 340 (3) Ecology
BLR 521 (3) Environmental Law and Policy
OR ECO 301 (3) Environmental Economics
CHM 120 (4) Survey of Chemistry
OR CHM 131 (4) Introduction to Chemistry I
AND CHM 132 (4) Introduction to Chemistry II
ENV 101 (3) Introduction to Environmental Studies
PSC 261 (3) State and Local Government

Electives (6-7 hours) chosen from the following:

ANT/SOC 370 (3) Global Environmental Issues
BIO/EESC 334 (3) Soil Science
CHM 342 (4) Survey of Organic Chemistry
ENV 310 (3) Environmental Issues Management
ESC 201 (4) Weather
OR ESC 240 (4) Meteorology
GEL 100 (3) Introduction to Earth Systems
OR GEL 101 (3) Physical Geology
OR GEL 105 (3) Environmental Geology
OR GEL 130 (3) Earth Processes
HSC 352 (3) Environmental Health
PSC 210 (3) Survey of Organic Chemistry
PSC 514 (3) American Public Policy Making
Other electives may be allowed with the consent of the advisor

Total: 25-30 semester hours

(plus 0-6 hours of prerequisites, depending on the electives chosen)
Interdisciplinary European Studies Major
B.A.; B.S. degrees

I. 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, 119 Anspach Hall, 774-3601.

II. 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.

III. Required Courses (15 hours):
EUR 301/GEO 365 (3) Europe
EUR 302/HST 356 (3) Europe Since 1945 3(3-0)
EUR 303/PSC 341 (3) Comparative Politics: Eastern Europe (Group IV-B)
EUR 304 (3) The European Economy (Group IV-B)
EUR 496 (3) European Studies Capstone Seminar

IV. Electives (21 hours):
21 hours of electives from the following list, of which 15 are from Social Sciences (A) and 6 are from Humanities (B), to be selected in consultation with a European Studies Advisor. At least 24 of the total number of hours in the required and elective courses must be at the 300 level or above.

List of Electives:
A. Social Sciences: Select 15 hours, using 3 different designators.
ECO 280 (3) Economies of the World (Group III-B)
ECO 320 (3) European and Asian Economic History
ECO 380 (3) Comparative Economic Systems
HST 280 (3) Nazi Germany and the Holocaust
HST 340 (3) The High Middle Ages (Group IV-A)
HST 347 (3) The French Revolution and Napoleonic Period (Group III-B)
HST 348 (3) Russia Through the Reign of Catherine the Great
HST 349 (3) Russia in the Nineteenth and Twentieth Centuries
HST 542 (3) The Enlightenment in Europe
HST 548 (3) Russian Thought
HST 558 (3) Europe, 1914-1945
PSC 150 (3) World Politics (Group III-B)
PSC 347 (3) Comparative Politics: Western Europe
PSC 351 (3) International Relations
PSC 375 (3) Socialism, Fascism, and Liberalism (Group IV-A)
PSC 515 (3) Comparative Public Policy
PSC 551 (3) Seminar in International Relations
PSC 555 (3) International Law I
SOC 301 (3) Sociological Theory
SOC 310 (3) Life in Russia Today

B. Humanities: Select 6 hours, using 2 different designators.
ART 185 (3) Introduction to Western Art, Part I (Group I-A)
ART 285 (3) Introduction to Western Art, Part II (Group I-A)
ART 481 (3) Western Medieval Art
ART 483 (3) Nineteenth Century European Painting
ART 586 (3) Seminar in Art History
ENG 262 (3) Masterpieces of European Literature (Group I-A)
ENG 330 (3) Mythological Backgrounds of Western Literature (Group I-A)
ENG 561 (3) European Romanticism: A Comparative Approach (Group IV-A)
HST 101 (3) The Development of Western Civilization, Part I (Group I-A)
HST 102 (3) The Development of Western Civilization, Part II (Group I-A)
HST 200 (3) The Medieval Civilization (Group I-A)
HST 238 (3) Ancient Greece and Rome (Group I-A)
HST 341 (3) Renaissance and Reformation (Group I-A)
HST 522 (3) History of Modern Europe (Group I-A)
HST 527 (3) Russian Thought (Group I-A)
REL 313 (3) Christianity (Group I-A)

Total Hours, Exclusive of Language Requirement: 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.

Required Courses (12 hours):
EUR 301/GEO 365 (3) Europe
EUR 302/HST 356 (3) Europe since 1945
EUR 496 (3) European Studies Capstone Seminar

One of the following:
EUR 303/PSC 341 (3) Comparative Politics: Eastern Europe
PSC 347 (3) Comparative Politics: Western Europe
EUR 304 (3) The European Economy

(continued)
Electives (9 hours):
The elective requirement may be satisfied by either:
1. 9 hours of electives from the approved list (A, B, or C), 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).

List of Electives (A, B, C):

A. Social Sciences

List of Electives (A, B, C):

A. Social Sciences

ECO 280 (3) Economies of the World (Group III-B)
ECO 320 (3) European and Asian Economic History
ECO 380 (3) Comparative Economic Systems
HST 340 (3) The High Middle Ages (Group IV-A)
HST 347 (3) The French Revolution and Napoleonic Period (Group III-B)
HST 348 (3) Russia through the Reign of Catherine the Great
HST 349 (3) Russia in the Nineteenth and Twentieth Centuries
HST 542 (3) The Enlightenment in Europe
HST 548 (3) Russian Thought
HST 558 (3) Europe, 1914-1945
PSC 150 (3) World Politics (Group III-B)
PSC 242 (3) Introduction to Comparative Politics (Group III-B)
PSC 347 (3) Comparative Politics: Western Europe
PSC 351 (3) International Relations
PSC 375 (3) Socialism, Fascism, and Liberalism (Group IV-A)
PSC 515 (3) Comparative Public Policy
PSC 551 (3) Seminar in International Relations
PSC 555 (3) International Law I
SOC 301 (3) Sociological Theory
SOC 310 (3) Life in Russia Today

B. Humanities

Any course or combination of courses with the FRN, GER or SPN designator numbered 202 or above.

ART 185 (3) Introduction to Western Art, Part I (Group I-A)
ART 285 (3) Introduction to Western Art, Part II (Group I-A)
ART 481 (3) Western Medieval Art
ART 483 (3) Nineteenth Century European Painting
ART 586 (3) Seminar in Art History
ENG 262 (3) Masterpieces of European Literature (Group I-A)
ENG 330 (3) Mythological Backgrounds of Western Literature (Group I-A)
ENG 561 (3) European Romanticism: A Comparative Approach (Group IV-A)
HST 101 (3) The Development of Western Civilization, Part I (Group I-A)
HST 102 (3) The Development of Western Civilization, Part II (Group I-A)
HST 200 (3) The Medieval Civilization (Group I-A)
HST 238 (3) Ancient Greece and Rome (Group I-A)
HST 341 (3) Renaissance and Reformation (Group I-A)
PHL 302 (3) History of Philosophy: Modern Period
PHL 307 (3) Existentialism: From Kierkegaard to Sartre
PHL 404 (3) History of Philosophy: Contemporary Period
PSC 275 (3) Great Political Thinkers (Group I-A)
REL 313 (3) Christianity (Group I-A)

C. Study Abroad:

Study in a European country, in consultation with a European Studies Advisor.

Total Hours: 21

Interdisciplinary

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

Gerontology is the holistic study of aging. It is a useful complement to numerous majors including those preparing students for work in human service settings, recreation and leisure, marketing, policy and planning, and in the design of environments, products, and attire. Students seeking applied settings are encouraged to intern or work in aging services to enhance their courses. To prepare for graduate studies, students are encouraged to participate in research with older adults. This minor has 12 required hours and 12 hours of electives, which allow the student to fit special interests and needs. Advisors for this minor are located in Human Environmental Studies.

Required Courses (12 hours):

- GRN 247 (3) Introduction to Gerontology
- HSC 390 (3) Health and Aging
- PSY 325 (3) Psychology of Aging
- SOC 320 (3) The Sociology of Aging and Retirement
- OR
- HEV 418 (3) Family Development in Late Life

Elective Courses (12 hours):

- RPL 345 (3) Therapeutic Recreation: Gerontology
- RPL 346 (3) Recreation for Senior Citizens
- CDO 544 (3) Communication Disorders in the Aged
- HSC 517 (2) Drugs and the Elderly
- REL 334 (3) Death and Dying: Religious Dimensions
- OR
- HSC 519 (3) Death Education and Suicide Prevention
- GRN 248 (3) Service Learning in Gerontology
- GRN/WST 430 (3) Women and Aging
- GRN 535 (3) Dementia Care: Diagnosis, Treatment & Prevention
- GRN/HEV 575 (3) Geriatric Nutrition
- GRN 590 (1-4) Independent Study
- GRN 597 (1-4) Special Topics
- Other courses as approved by program advisor.

Total: 24 semester hours

Interdisciplinary

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

A minor in the Humanities is designed for students who are interested in making connections rather than in specialization and may be an excellent addition to the specialized study of their major. This minor can also be used to prepare for graduate programs that are interdisciplinary in the humanities and liberal arts.

The interdepartmental minor in the Humanities concentrates on integrating studies of the world’s literary and cultural heritage within the context of social, economic, scientific, and political forces that have affected mankind in different ways from the past to the present. For further information contact Professor Ronald Primeau, Department of English.

Coursework must be selected with approval of advisor as follows:

Area I - Comparative Literature (6 hours):

- ENG 261 (3) Masterpieces of Ancient Literature
- ENG 262 (3) Masterpieces of European Literature

Area II - The Traditional Humanities (12 hours):

Each course must be taken from a different discipline.

- ART 185 (3) Introduction to Western Art, I
- ART 285 (3) Introduction to Western Art II
- ART 384 (3) Arts of Non-European Traditions
Total: 24 semester hours

Area III - Modern Human Problems (3 hours):
- SOC 221 (3) Social Problems
- HUM 201 (3) The Classical World: Law and Society
- ENG 561 (3) European Romanticism: A Comparative Approach
- SOC 323 (3) Racism and Inequality

Area III - Modern Human Problems (3 hours):
- ANT 170 (3) Cultural Anthropology
- BIO 330 (3) Human Ecology
- CHM 111 (3) The Interaction of Chemistry and Society
- GEO 121 (3) Cultures of the World
- GEO 340 (3) Urban Geography
- PSC 151 (3) The U.S. and the World
- PSC 540 (3) Cultural Heritage and Politics of Eastern Europe
- MUS 313 (3) Musics of the World
- PHL 200 (3) History of Philosophy: Classical Period
- PHL 302 (3) History of Philosophy: Modern Period
- PHL 390 (3) Philosophy of Science
- PHL 422 (3) Political and Social Philosophy
- REL 222 (3) Religious Traditions of India
- REL 301 (3) Myth and Meaning
- REL 320 (3) The Buddhist Tradition
- SPN 376 (3) Culture and Civilization of Spain
- SPN 377 (3) Culture and Civilization of Latin America
- TAI 574 (3) History of Drama and Theatre, I
- TAI 575 (3) History of Drama and Theatre, II

Area IV - Integrative Studies (3 hours):
The following courses may be grouped under Areas II and III, 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 IV-A of the University Program.

- ENG 561 (3) European Romanticism: A Comparative Approach
- HST 340 (3) The High Middle Ages
- HUM 201 (3) The Classical World: Law and Society
- SOC 221 (3) Social Problems

Total: 24 semester hours

Interdisciplinary
Integrated Science Minor
B.S. in Ed. degree, Provisional Elementary Certification and Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

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. It is not adequate preparation to teach science at the middle school level. 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. Students are cautioned that they must have 24 semester hours on their Integrated Science minor that are not counted on any other major or minor for teacher certification. All courses must be taken for a grade, not for credit/no credit even if offered as an option. Grades in courses transferred to CMU will count in the calculation of the minor GPA. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

In addition to the courses listed below, each student must receive training in safe chemical use and storage and 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 Life Science (12 hours):
- BIO 101 (3) General Biology
- OR BIOS 205 (3) Introductory Quantitative Biology
- BIO 151 (3) Human Biology
- BIO 229 (3) Nature Study

An additional 3 credit BIO course at the 200-level or higher selected in consultation with an advisor.

Required Courses Earth and Space Science (13 hours):
- GEL 130 (3) Earth Processes (recommended)
- OR GEL 100 (3) Introduction to Earth Systems
- GEL 230 (3) Prehistoric Life
- OR GEL 201 (3) Earth History
- ESC 201 (4) Weather
- AST 111 (3) Astronomy

Required Courses in Physical Science (10-11 hours):
- PHS 151 (3) Introductory Physical Science I
- PHS 251 (3) Introductory Physical Science II
- CHM 111 (3) The Interaction of Chemistry and Society (recommended)
- OR CHM 120 (4) Survey of Chemistry
- CHM 127 (1) Introductory Chemistry Laboratory

Required Courses in Teaching Science (3 hours):
- BIO 351 (3) Biological Science for Elementary Teachers
- OR ESC 400 (3) Earth Science Education
- OR PHS 351 (3) Physical Science for the Elementary Grades
- OR PHS 452 (3) Physical Science for the Middle Grades

Total: 38-39 semester hours

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

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.

Students are cautioned that they must have 24 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 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 in Life Science (9 hours):
- BIO 101 (3) General Biology
- OR BIOS 205 (3) Introductory Quantitative Biology
- BIO 151 (3) Human Biology

An additional 3 credit BIO course at the 200-level or higher selected in consultation with an advisor, excluding BIO 351 or BIO 508.

(continued)
Required Courses in Earth and Space Science (13 hours):
GEL 130 (3) Earth Processes (recommended)
OR GEL 100 (3) Introduction to Earth Systems
GEL 230 (3) Prehistoric Life
OR GEL 201 (3) Earth History
ESC 201 (4) Weather
AST 111 (3) Astronomy

Required Courses in Physical Science (8-9 hours):
PHS 101 (3) Survey of Physical Science
PHY 127 (1) Table Top Physics
CHM 111 (3) Chemistry and Society (recommended)
OR CHM 120 (4) Survey of Chemistry
CHM 127 (1) Introductory Chemistry Laboratory

Total: 30-31 Semester Hours

Interdisciplinary
Integrative Public Relations Major
B.A.; B.A.A.; B.S. degrees

Integrative Public Relations is an interdisciplinary 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, Retention, and 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 be junior/senior status.

Required Courses (41 hours):
IPR 101 (1) Foundations of Integrative Public Relations
IPR 555 (6) Public Relations Internship
BCA 210 (4) Survey of the Mass Media
BCA 311 (3) Broadcast and Cable Copywriting
BCA 512 (3) Broadcast and Cable Promotion
IPC 264 (3) Organizational Communication
IPC 357 (3) Public Speaking *
JRN 202 (3) Writing for the Mass Media
JRN 302 (3) Introduction to Graphics and Visual Communication
JRN 350 (3) Public Relations Principles and Practices
JRN 450 (3) Public Relations Writing
JRN 551 (3) Case Studies in Public Relations
JRN 556 (3) Public Relations Seminar
* fulfills oral competency requirement

Electives (18 hours):
Selected from the three groups listed below, in consultation with an advisor, each student must complete a minimum of 6 hours in Organizational Communication, 3 hours in Broadcasting, and 9 hours in Multimedia and Entrepreneurship.

Group A (6 hours) - Organizational Communication
IPC 195 (3) Intercultural Communication
IPC 353 (3) Communication in Small Groups
IPC 362 (3) Male-Female Communication
IPC 363 (3) Principles and Types of Interviewing
IPC 365 (3) Persuasion
IPC 560 (3) Communication and Change: The Diffusion of Ideas and Information
IPC 561 (3) Communication in Conflict Management

Group B (3 hours) - Broadcasting
BCA 317 (3) Radio and Television Performance
BCA 318 (3) Radio and Television News
BCA 503 (3) Critiquing Mass Media
BCA 505 (3) Advanced Electronic Media Writing
BCA 511 (3) Broadcast and Cable Sales

Group C (9 hours) – Multimedia and Entrepreneurship
3-6 hours from business
ENT/ACC 210 (3) Accounting Information for Entrepreneurial Decision Making
ENT/MKT 221 (3) Marketing Strategies for Entrepreneurs
ENT/FIN 320 (3) Financial Management of the Entrepreneurial Venture
MGT 310 (3) Small Business Management
PHL 318 (3) Business Ethics
3-6 hours from research into publics
SOC 300 (3) Introduction to Research Methods
PSY 211 (3) Introduction to Psychological Statistics
PSY 337 (3) Psychology of Advertising
PSC 327 (3) Lobbying and Interest Group Behavior

0-3 hours from multimedia design and integrated marketing
CPS 282 (3) Introduction to Multimedia Design
CPS 482 (3) Advanced Multimedia Design
MKT 300 (3) Introduction to Marketing
JRN 360 (3) Advertising Principles
JRN 365 (3) Advertising Media

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 Speech 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.

Core Requirements (16 hours):
EDU 330 (3) Reading in the Elementary School
EDU 431 (3) Corrective Reading in the Classroom
ENG 315 (4) Teaching Writing in the Elementary School
ENG 381 (3) Children’s Literature
ENG 481 (3) International Literature for Children & Young Adults
OREN 382 (3) Cultural Pluralism in Young Adult and Children’s Literature

Other Requirements (11-12 hours):
Language Development (3 hours): Choose one from the following:
CDO 130 (3) Normal Speech and Language Acquisition
ENG 175 (3) The Nature of Language
Usage (2-3 hours): Choose one from the following:
CDO 230 (3) Introduction to Speech, Language and Hearing Disorders
EDU 532 (3) Reading in the Content Areas
ENG 371 (2) Pedagogic Grammar
ENG 517 (3) Reading in the English Classroom
SDA 302 (3) Voice and Diction

Performance (3 hours): Choose one from the following:
ENG 385 (3) Poetry for Children & Young Adults
IPC 569 (3) Communication in the Classroom
TAI 373 (3) Oral Interpretation for Children
TAI 585 (3) Creative Dramatics

Restricted Electives (8-9 hours): To be selected from the above list of approved electives.
No more than 19 credit hours may be taken in the same department.

Total: 24-25 semester hours

Interdisciplinary
Latin American Studies
Interdisciplinary Minor
B.A.; B.S. degrees

This minor is designed for students with a strong interest in Latin America. Cultural, political and economic ties between this region and the United States have always been strong, and are becoming ever more important in the world arena. A student with a minor in this area will be able to become involved more easily into different political, industrial, and cultural areas of the U.S., both nationally and internationally, in private and governmental sectors. The minor can also constitute a preparation for more specialized studies in graduate school.

Students are encouraged to include study abroad as a part of their fulfillment of requirements for the minor. Advisors and the Office of International Programs will assist the student in selecting from a number of recommended sites and universities throughout Latin America, including the Universidad Austral de Chile located in Valdivia, Chile. Transfer credits can be arranged or recognized to count in the identified Requirements or Component Courses areas listed below.

For more information, contact the advisors for the program, Dr. Sergio Chavez, Department of Sociology, Anthropology, and Social Work, 118 Anspach Hall, 774-3656; or Dr. Mary–Garland Jackson, Department of Foreign Languages, Literatures, and Cultures, 313 Pearce Hall, 774-3447.

Language Requirement
Latin American Studies minors are required to attain basic proficiency in Spanish. Basic proficiency can be demonstrated by successful completion of SPN 202 or equivalent.

Required Courses (21 hours)
Three hours from SPN 300 level or above.
HST 163 (3) The Latin American Experience, plus three additional hours of HST from component courses.
ANT 321 (3) Cultures of Latin America, plus three additional hours of ANT from component courses.
GEO 373 (3) Latin America
PSC 348 (3) Latin American Political Systems

Electives (3 hours)
The electives may be satisfied by either:
1. 3 hours from the list of component courses.
2. 3 hours of study abroad in a Latin American country, as approved by an advisor.
3. 3 hours of independent study on a Latin American topic, as approved by an advisor.

Component Courses:

Spanish:
SPN 377 (3) Culture and Civilization of Latin America
SPN 388 (3) Survey of Spanish-American Literature (Beginnings to Modernism)
SPN 389 (3) Survey of Spanish-American Literature (Modernism to Present)
SPN 415 (3) Spanish-American Novel
SPN 416 (3) Spanish-American Drama and Essay
SPN 417 (3) Spanish-American Poetry and Short Story

(continued)
The Minor in Media Design, Production, and Technology consists of 24 semester hours which will be divided into a 15 hour core and 9 hours of electives. The specific design of the minor follows:

**Core (15 hours):**
- ART 135 (3) Introduction to Graphic Design
- BCA 222 (3) Video Production
- CPS 282 (3) Introduction to Multimedia Design
- IET 143 (3) Introduction to Graphic Arts
- JRN 220 (3) Basic Media Photography

**Electives (9 hours to be selected from):**
- ART 235 (3) Logo and Identity Design
- ART 239 (3) Digital Imaging I
- ART 335 (3) Graphic Design III
- ART 339 (3) Digital Imaging II
- ART 435 (3) Print Production for Graphic Designers
- ART 349 (3) Typography
- BCA 222 (3) Audio Production
- BCA 421 (3) Advanced Audio Production
- BCA 422 (3) Intermediate Video Production
- BCA 521 (3) Electronic Cinematography
- BCA 522 (3) Multimedia Audio Post Production
- BCA 532 (3) Advanced Video/Multimedia Post Production
- CPS 482 (3) Advanced Multimedia Design
- CPS 165 (1) Designing Web Pages
- IET 343 (3) Line Photography and Beginning Offset
- IET 543 (3) Production Printing Methods
- ITC 320 (3) Web-based Applications
- ITC 582 (3) Multimedia Systems
- JRN 302 (3) Introduction to Graphics and Visual Communication
- JRN 320 (3) Photo Editing
- JRN 420 (3) Photography Studio Techniques
- JRN 422 (3) The Photographic Process

Internship Experience through a Participating Department (3)

**NOTE:** Students may not apply more than 6 hours of coursework from their declared major towards this minor. Students are required to achieve a grade of C (2.0) or better in each of the Core courses in the minor.

Total: 24 Semester Hours

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**Admission, Retention, and 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):**
   - Prior to applying for admissions for the minor, students must have completed 45 hours of university work with an overall GPA of 2.0.
   - MST minors are required to earn a minimum of C in all courses on their minor.

2. **Course Information:**
   - Students minoring in museum studies must select an additional nine hours of elective courses in consultation with MST advisor.
   - Courses on the MST minor cannot be taken on a credit/no credit basis.
   - Field trip expenses for any MST class are prorated among the students.
   - Students who enroll for MST courses without the prerequisites or permission of the instructor will be dropped from that course.
**Interdisciplinary** 127

**Music Theatre Major**

*B.F.A. degree*

**Why study Music Theatre?**

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, Retention, and 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 listed above, 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:

- Studies in music, particularly formal voice lessons
- Studies in acting, particularly basic acting classes
- Studies in dance, particularly basic dance technique classes

**Required Courses (56 hours):**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>DAN 133 (2)</td>
<td>Dance Technique I</td>
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<tr>
<td>DAN 136 (2)</td>
<td>Ballet Technique I*</td>
</tr>
<tr>
<td>DAN 137 (2)</td>
<td>Tap I*</td>
</tr>
<tr>
<td>DAN 138 (2)</td>
<td>Jazz I*</td>
</tr>
<tr>
<td>DAN 230 (3)</td>
<td>Movement-Rhythmic Form and Structure</td>
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<td>DAN 231 (2)</td>
<td>Fundamental Movement</td>
</tr>
<tr>
<td>DAN 232 (2)</td>
<td>Dance Composition I</td>
</tr>
</tbody>
</table>

* Students demonstrating sufficient proficiency as determined by appropriate DAN faculty member(s) may substitute a higher level skills course for this course.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 147 (1)</td>
<td>Piano Class I*</td>
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<tr>
<td>MUS 148 (1)</td>
<td>Piano Class II*</td>
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<tr>
<td>MUS 150 (2)</td>
<td>Voice (2 semesters; one credit each)</td>
</tr>
<tr>
<td>MUS 206 (3)</td>
<td>Understanding Musical Composition</td>
</tr>
<tr>
<td>MUS 233 (3)</td>
<td>Musicianship for the Elementary School</td>
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<tr>
<td>MUS 250 (2)</td>
<td>Voice (2 semesters; one credit each)</td>
</tr>
<tr>
<td>MUS 284 (3)</td>
<td>Techniques for the Singing Actor (3 semesters; one credit each)</td>
</tr>
<tr>
<td>MUS 350 (2)</td>
<td>Voice (2 semesters; one credit each)</td>
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</tbody>
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(continued)
Students demonstrating sufficient proficiency as determined by appropriate MUS faculty member(s) may substitute a higher level skills course for this course.

TAI 182 (3) Acting I
TAI 282 (3) Acting II
TAI 278 (3) Stage Makeup
TAI 380 (3) Musical Theatre
TAI 460 (3) B.F.A. Studio
TAI 481 (3) Directing
TAI 452 (3) Music Theatre Performance
TAI 574 (3) History of Drama and Theatre I
OR TAI 575 (3) History of Drama and Theatre II

Elective (14 hours):
Selected from DAN, MUS, TAI and/or cognate classes in consultation with the advisor.

TOTAL: 70 hours

Interdisciplinary
Natural Resources Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

In most cases, the Natural Resources Minor (NRM) is utilized to strengthen a major. Students who expect to pursue a career in one of the fields of natural resources (forestry, wildlife and fisheries, ecology and management, water quality, soils, geology, etc.) may wish to consult a natural resources advisor about a major in the chosen field before selecting the minor.

Required Courses:
BIO 240 (3) Conservation of Natural Resources
OR GEO 330 (3) Resource Perception and Utilization
BIO 340 (3) Ecology

Three (3) one-credit hour biology conservation courses, BIO 361, 362, 363, or 364, selected in consultation with a natural resources advisor or BIO 558 (2) Natural Resources Management plus one (1) of the one-credit-hour biology conservation courses selected in consultation with a natural resources advisor.

If the student is a biology major, 14 semester hours must be selected from the following courses; otherwise 10 semester hours will suffice.

ESC 105 (3) Physical Geography
ESC 201 (4) Weather
ESC 205 (3) Oceanography
ESC 210 (3) Landforms
ESC 305 (3) Oceanography: Economic and Environmental
ESC 330 (3) Biogeography
ESC 340 (3) Micrometeorology
ESC 346 (3) Air Pollution
ESC 350 (3) Environmental Catastrophes
GEL 101 (3) Physical Geology
GEL 102 (1) Physical Geology Laboratory
GEL 105 (3) Environmental Geology
GEL 203 (3) Geology of the National Parks
GEL 304 (3) Energy Resources
GEL 310 (4) Introductory Mineralogy
GEL 320 (3) Earth Materials
GEL 402 (3) Environmental Geochemistry
GEO 120 (3) Environmental Geography
GEO 305 (3) Remote Sensing of the Environment
GEO 315 (3) Food and Agriculture
GEO 320 (3) Population Geography
GEO 506 (3) Applications in Remote Sensing of the Environment
GEO 530 (3) Land Use Planning

The remaining semester hours, to make a total of 24, should be selected from the following:
BIO 229 (3) Nature Study
BIO 306 (3) Natural History of Vertebrates
BIO 334 (3) Soil Science
BIO 338 (3) Human Ecology
BIO 526 (3) Limnology
BIO 559 (3) Field Botany
BIO 594 (2) Advances in Conservation

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 (27 hours):
BIO 101 (3) General Biology
BIO 392 (4) Mammalian Physiology
BIO 591 (3) Neurophysiology
BIO 487 (2) Neuroscience Seminar (two semesters, for a maximum of two credits)
OR PSY 487 (2) Neuroscience Seminar (two semesters, for a maximum of two credits)
PSY 100 (3) Introduction to Psychology
PSY 387 (3) Behavioral Neuroscience
PSY 588 (3) Functional Neuroanatomy
PSY 211 (3) Introduction to Psychological Statistics
OR BIO 500 (3) Biological Statistics
OR HSC 544 (3) Biostatistics
PSY 496 (3) Directed Research
OR BIO 403 (3) Undergraduate Research

Electives (12 hours): Six hours from Group A and six hours from Group B below, selected in consultation with and the approval of your advisor.

Group A
HSC 214 (3) Human Anatomy
BIO 218 (3) General Zoology
BIO 324 (3) Cell Biology
BIO 326 (4) Genetics
BIO 337 (4) Comparative Anatomy
BIO 534 (3) Endocrinology
BIO 552 (4) Transmission Electron Microscope Technique
BIO 554 (4) Scanning Electron Microscope Technique

Group B
HSC 235 (3) Psychoactive Drugs
PSY 382 (3) Perception
PSY 383 (3) Learning and Memory
PSY 384 (3) Behavior Analysis
BIO 518 (3) Animal Behavior
PSY 585 (3) Psychophysiology
PSY 587 (3) Physiological Psychology
HSC 597 (3) Physiological Responses to Abused Substances
Additional Requirements (12-23 hours)

Students must take one of the following sequences:

CHM 120 (4) Survey of Chemistry
AND CHM 127 (1) Introductory Chemistry Laboratory
OR CHM 131 (4) Introduction to Chemistry I
AND CHM 132 (4) Introduction to Chemistry II
OR CHM 161 (5) Principles of Chemistry
AND CHM 211 (4) Quantitative Analysis

Plus one of these:

CHM 342 (4) Survey of Organic Chemistry
OR CHM 345 (3) Organic Chemistry I
AND CHM 346 (3) Organic Chemistry II
AND CHM 349 (2) Introduction to Organic Chemistry Lab

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

Michael Libbee (Geography) advises students with a geography concentration; and Tim Hall (History) advises students with a 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.

A. Required Courses (24 hours):
   PSC 101 (3) Political Behavior
   PSC 105 (3) Intro. to American Government and Politics
   GEO 120 (3) Environment and Man
   GEO 121 (3) Cultures of the World
   HST 101 (3) Western Civilization
   OR HST 102 (3) Western Civilization
   HST 111 (3) American History
   OR HST 112 (3) American History

B. Electives (15 hours) selected in consultation with advisor:
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. At least 12 hours 300 level or higher.
3. At least one course from each of the following categories:
   • Michigan and local areas studies: either GEO 395 or HST 333
   • American history or American studies (e.g., ECO 310, 430; GEO 310, 350; PSC 320, 321, 323, 371, 372, 421, 422; any American history course).
   • Women or minorities (e.g., ECO 230; PSC 125, 325, 326; HST 323, 324, 325, 326, 354).
   • World regions other than North America or Europe from ECO, HST, GEO or PSC.
   • A subject matter seminar for education students (GEO 400, HST 400 or PSC 405).

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.

A. Required Courses in Concentration (18-20 hours):
   Political Science PSC 105(3), 261 (3), 305* (2), 405 (3) and nine (9) additional hours of Political Science chosen from the following:
   PSC 101 (3), PSC 320 (3), PSC 321(3), PSC 323(3), PSC 327(3),
   PSC 421 (3), PSC 422 (3).
*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 in their program.

B. Required Courses Outside Concentration (18):
   ECO 201(3), ECO 202 (3), and one course from the following: ECO 301 (3), ECO 306 (3), ECO 310 (3), ECO 381 (3).

C. Electives (3 hours):
   Selected from Economics, Geography, and Political Science in consultation with an advisor.

Minimum of 17 hours at the 300-level or higher selected from the areas above.

Total: 39-41 hours
Interdisciplinary

Women’s Studies Major
B.A.; B.A.A.; B.S. degrees

Women’s Studies is a multi-disciplinary course of study that fosters understanding of the ways in which social patterning of female and male roles impacts on human behavior and on the accumulation of knowledge. It satisfies the needs of students working in a large number of disciplines. The Women’s Studies major requires 30 hours of coursework and a second major taken in any discipline offered at Central Michigan University.

The director of the Women’s Studies Program serves as advisor for all students taking this major. The Women’s Studies office is located in 120 Anspach (774-3601).

I. Required Courses (24 hours):
   All of the following (9):
   WST 328/HST 326 (3) Women in America
   WST 426/PHL 426/PSC 426 (3) Feminist Theory
   WST 496 (3) Senior Seminar in Women’s Studies

   Three of the following (9):
   WST 230/ECO 230 (3) Women in the Economy
   WST 317/SOC 317 (3) Sociology of Sex and Gender
   WST 326/PSC 326 (3) Women and Politics
   WST 334/PSY 334 (3) Psychology of Women
   WST 430/GRN 430 (3) Women and Aging
   WST 590/ANT 590/SOC 590 (3) Gender, Culture and Society

   Two of the following (6):
   WST 207/REL 207 (3) Women in Religion
   WST 303/REL 303 (3) Goddesses
   WST 327/ENG 327 (3) Women Writers
   WST 354/HST 354 (3) Women in European History
   WST 362/IPC 362 (3) Male/Female Communication
   WST 382/ART 382 (3) Women and Art

II. Electives (6 hours):
   Chosen from the courses not selected from the lists above, or from the following group, with no more than three hours from Group B.

   Group A:
   WST 303/REL 303 (3) Goddesses
   WST 354/HST 354 (3) Women in European History
   WST 382/ART 382 (3) Women in Art
   WST 334/PSY 334 (3) Psychology of Women

   Group B:
   WST 202/HSC 202 (3) Women’s Health
   WST 213/SOC 213/HEV 213 (3) Introduction to Human Sexuality
   WST 221/HST 221 (3) Growing up in America
   WST 297 (3-6) Special Topics in Women’s Studies
   WST 319/PES 319 (2) Women and Sport
   WST 325/BLR 325 (3) Women and the Law
   MGT 357 (3) Women in Management
   WST 380/JRN 380 (3) Racial Diversity: Mass Media’s Role
   WST 410/SOC 410 (3) Women, Crime and Deviance
   WST 497 (3-6) Special Topics in Women’s Studies
   WST 513/SOC 513 (3) Society and Sex
   WST 535/SOC 535 (3) Sexual Orientation

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 (774-3601).

I. Required Courses (18 hours):
   All of the following (9):
   WST 328/HST 326 (3) Women in America
   WST 426/PHL 426/PSC 426 (3) Feminist Theory
   WST 496 (3) Senior Seminar in Women’s Studies

   Two of the following (6):
   WST 230/ECO 230 (3) Women in the Economy
   WST 317/SOC 317 (3) Sociology of Sex and Gender
   WST 326/PSC 326 (3) Women and Politics
   WST 430/GRN 430 (3) Women and Aging
   WST 590/ANT 590/SOC 590 (3) Gender, Culture and Society

   One of the following (3):
   WST 207/REL 207 (3) Women in Religion
   WST 327/ENG 327 (3) Women Writers
   WST 362/IPC 362 (3) Male/Female Communication

II. 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 Group B.

   Group A:
   WST 303/REL 303 (3) Goddesses
   WST 354/HST 354 (3) Women in European History
   WST 382/ART 382 (3) Women in Art
   WST 334/PSY 334 (3) Psychology of Women

   Group B:
   WST 202/HSC 202 (3) Women’s Health
   WST 213/SOC 213/HEV 213 (3) Introduction to Human Sexuality
   WST 221/HST 221 (3) Growing up in America
   WST 297 (3) Special Topics in Women’s Studies
   WST 319/PES 319 (2) Women and Sports
   WST 325/BLR 325 (3) Women and the Law
   MGT 357 (3) Women in Management
   WST 380/JRN 380 (3) Racial Diversity: Role of Mass Media
   WST 410/SOC 410 (3) Women, Crime and Deviance
   WST 497 (3) Special Topics in Women’s Studies
   WST 513/SOC 513 (3) Society and Sex
   WST 535/SOC 535 (3) Sexual Orientation

Total: 24 semester hours
Pre-Professional Studies

The 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.

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 list of available majors at Central Michigan University on page 110.

Pre-Architecture
Advisor: Terry Lerch, Industrial and Engineering Technology, IT 100, 774-3033. E-mail: lerch1t@cmich.edu

Architects plan, design and inspect the construction of all types of buildings, including private homes, offices, hospitals, laboratories, theatres, libraries, museums, schools and factories. Some architects have private practices and work alone although most architects work as members of a team under the direction of a project manager or a more experienced architect. Their work requires using design, engineering, managerial and supervisory skills to produce structures that are aesthetically pleasing, functional and safe.

There are architectural schools in Michigan. Landscape architecture is also available. Applicants should transfer after completing a maximum of two years of professional coursework at CMU. Students should apply to the architectural school by January of the second year of studies. Accredited degree programs typically include: 1) a four-year, nonprofessional baccalaureate degree followed by a two-year, master of architecture degree; 2) a five-year bachelor of architecture degree; and 3) a six-year curriculum leading to a master of architecture degree.

No special examinations are generally required for admission to the architectural schools. The architectural schools review the quality and content of all previous academic education, personal statements of professional purpose and letters of recommendation. A number of architectural schools may require an architectural related essay and/or a portfolio of art and architectural related projects.

Typically, a student will transfer to an architectural school after a maximum of two years. Coursework must include extensive art/design classes, together with two courses in English Composition, a minimum of one course each in calculus and physics. Additional courses are to be selected from the areas of: humanities, natural sciences, social sciences and introductory computer science.

A typical first semester schedule at CMU:

- ART 105 (3) or ART 115 (3)
- MTH 130 (4) or MTH 132 (4)
- ENG 101 (3) or SDA 101 (3)
- Humanities electives (6)

Pre-Dentistry
Advisor: Jonathan Kelty, Department of Biology, 774-1382
E-mail: kelty1j@cmich.edu

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: Terry Lerch, Engineering & Technology, IT 100, 774-3033, E-mail: lerch1t@cmich.edu

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: Douglas Valek, Department of Biology, 774-3758
E-mail: D.Valek@cmich.edu

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.

(continued)
The student’s schedule for the first year should be chosen from the following courses:

- ENG 101 (3) and 201 (3)
- MTH 106 (3) and 107 (3) - students with credit for these courses from high school should enroll for more advanced mathematics, i.e. MTH 130.
- BIO 101 (3) OR BIO 105 (3) and 203 (3)
- SDA 101 (3)
- GEL 101 (3) and 102 (1)
- CHM 131 (4) and 132 (4)
- ECO 201 (3)

Electives: The pre-forestry advisor can recommend electives which will be most useful in meeting expressed interests or future requirements.

Pre-Law
Advisors:

John Meixner, Director of Law Professions Center, Department of Philosophy, 774-3497.
Joyce Baugh, Department of Political Science, 774-3442.
Elizabeth Campbell, Department of Finance and Law, 774-4426.
James P. Hill, Department of Political Science, 774-7415
Tanya Marcum, Finance and Law, 774-3394
Nancy White, Finance and Law, 774-1842

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 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: Fred McCorkle, Department of Biology, 774-3348
E-mail: Fred.McCorkle@cmich.edu

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 101 or BIO 105 (3)
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 AAMCOS (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 (AAMCOS). 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: Pat Cwiek, BSN, M.A. at 774-2712; email: cwiek1pj@cmich.edu

NOTE: CMU does not offer a nursing program.

The CMU Pre-Nursing program is designed for students planning to transfer to a school of nursing. The Pre-Nursing advisor maintains files with information useful to career 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.

Nursing programs in preparation for licensure as a registered nurse are two to four years in length. Depending on the program of study, students can earn an Associate's degree or a Bachelor of Science degree.

Prerequisites for admission and deadlines for application vary among nursing programs. 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 101 (3)
- Humanities elective (3)*

*Group I of University Program

Pre-Occupational Therapy
Advisor: Linda Seestedt Stanford, The Herbert H. and Grace A. Dow College of Health Professions, HPB 2217; 774-1850; e-mail: stanf1ls@cmich.edu

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 an articulation agreement with Grand 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 101 (3)
- SOC 100 (3)
- PSY 100 (3)
- SDA 101 (3)
- Math Competency Course (3)
- University Program course

Pre-Optometry
Advisor: Stanley Hirschi, Dept. of Physics, 774-3321
E-mail: Stanley.Hirschi@cmich.edu

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 have earned their 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. Most optometry schools require that the student complete differential calculus.

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 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 101 (3) OR 105 (3)
- CHM 131 (4)
- ENG 101 (3) OR 103 (3) OR 201 (3)
- MTH 130 (4)
- Elective (3), see advisor

Pre-Pharmacy
Advisor: Bradley Fahlman, Department of Chemistry, 774-1195; e-mail: fahlm1b@cmich.edu

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 101P OR 105 (3) - select the major and minor section as listed in the Course Offering Guide.
- 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/users/fahlm1b/prepharm.html.
Pre-Physical Therapy

Advisors:
Herm Trizenberg, 774-3899;
Elaine Betts, 774-2356;
Peter Loubert, 774-2396;
Elizabeth Mostrom, 774-2349;
Jan Perkins, 774-1297;
Debbie Silkwood-Sherer, 774-1337;
Laurie Swan, 774-2699;
Tim Zipple, 774-6579;
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, 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 in some majors may be able to complete their undergraduate major requirements in three years. Students can then be eligible to enter the Graduate Program in Physical Therapy after their third year. Students need to check with their advisor to find out if this option is available to them.

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.** (9 credits are required, including courses in Anatomy (recommended CMU courses include HSC 214 OR BIO 337) and Physiology (recommended CMU courses include HSC 215 OR BIO 392). 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, 147, 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)

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 prerequisites 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

For information contact the Physician Assistant Program, 774-2478.

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

Organic Chemistry OR CHM 131 and CHM 132

Biochemistry CHM 342

**Psychology Courses**

Introductory Psychology PSY 100

Developmental Psychology PSY 220

Mathematics Courses

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: Elizabeth Alm, Department of Biology, 774-3227
Gregory Colores, Department of Biology; 774-3412
http://www.cmich.edu/users/Alm1EW/PreVetIndex.html

In addition to working in general practice, doctors of veterinary medicine have opportunities to engage in small animal practice, teaching and research at universities, and biomedical research in government agencies, biological and pharmaceutical laboratories, and private medical research institutions. The U.S. Department of Agriculture employs veterinarians for livestock disease control, meat and poultry inspection, and other methods of disease prevention. The U.S. Public Health Service, U.S. Army and Air Force, and state and county agencies also hire veterinarians for public health work.

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 the 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 101 (3), BIO 208 (3), BIO 218 (3), BIO 324 (3), BIO 326 (4)
- CHM 131 (4), CHM 132 (4), CHM 345 (3), CHM 346 (3), CHM 349 (2), CHM 425 (3)
- PHY 130 (4), PHY 131 (4), PHY 170 (1), PHY 171 (1)
- ENG 101 (3), ENG 201 (3). Students who are excused from ENG 101 should take ENG 201 and three hours of literature.
- HST 101 (3), HST 102 (3)
- PHL 100 (3)
- SOC 100 (3)
- ECO 201 (3)
- PSY 100 (3)
- MTH 106 (3), MTH 107 (3)

1 Other course subjects which may be used to satisfy MSU's humanities requirement are: American or English literature, music appreciation, history of music, art appreciation, history of art, and religion.

2 Other courses that may be used to satisfy MSU’s social science requirement are: cultural anthropology, geography (economic or human), political science, psychology (principles), and sociology.

3 Higher level math courses may substitute.
Honors Program

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, demanding, 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:
• Small class size, limited to 20 students in Honors sections.
• Honors sections offered for many University Program courses.
• Honors sections offered for written and oral communication competency requirements.
• Individualized study opportunities through Honors Contracts, Independent Study, or a Senior Project.
• 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.
• Access to specialized academic advising through the Honors Program Office and Honors Academic Advisor, located in Larzelere Hall.
• Eligibility to enroll in graduate courses (director of Honors Program will review request and notify student and registrar's office of decision).
• Faculty mentoring through Independent Study or Senior Project opportunities.
• 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.
• 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 almost any regular CMU class for Honors credit through an arrangement between the student and the instructor.
• 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 together, conducts original research, or engages in a creative endeavor.
• An Honors Colloquium which offers a first-year introduction to the Honors Program.

Honors Program Requirements

There are a number of requirements which must be met by all Honors students. These requirements are arranged in Protocols or programs of study. There are several different Protocols available, each of which is described in detail in the Honors Student Handbook. Honors students will receive the handbook upon acceptance into the Honors Program so that they can plan their program of study accordingly.

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 3.5 are encouraged to apply. High school students with a composite ACT score of below 24 will be required to have a 3.75 GPA. Upon admission to the university and the Honors Program, these students will be encouraged to participate in Honors study by enrolling in Honors sections, Honors Contract work, or Independent Study. 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 "C" in all Honors courses, Honors Contracts, Honors Independent Study, or Senior Project taken for credit.
• Transfer students admitted to the Honors Program may apply up to 6 credit hours of previous college or university Honors coursework. Transfer students should meet with the Director of the Honors Program to discuss this option.

Centralis Program

The Centralis Scholarship Program provides merit-based awards to outstanding entering freshmen and community college transfers. The University’s Honors Council has developed specific plans of study, called protocols, for the three types of awards: Scholar; Gold; and Community College. All Centralis award recipients are automatically admitted to the Honors Program and are eligible to enroll in Honors designated courses, and complete Honors Contracts for their courses. Additional information and award specifics are delineated on page 32 of this Bulletin under the Centralis Scholarship Program.
College of Business Administration

Daniel Vetter, Interim Dean
JoAnn Linrud, Interim Associate Dean
250 Applied Business Studies Complex
774-2481

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 (AACSBS). The accreditation assures quality business programs and the ability to attract excellent faculty with extensive professional teaching experience. The AACSBS 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; and an Economics major on the B.S. or B.A. degree offered by the Department of Economics.

The Master of Business Administration graduate degree is available within the College of Business Administration. The Master of Science in Information Systems is offered by the Department of Business Information Systems. A Master in Economics is available in the Department of Economics. Requirements for these degrees are described in the Bulletin, College of Graduate Studies.

The College operates the LaBelle Center for Entrepreneurial Activities which include opportunities for students to provide consulting services for small businesses under the direction of a faculty coordinator.

The student interested in majoring or minoring in the College of Business Administration should contact the Office of Business Student Services during their first semester at Central Michigan University. This office offers academic advisement relating to admission to Professional Business Studies (PBS), degree requirements and career planning.

Your education in the College of Business Administration not only provides the skills you need for your first job, but also is committed to instilling in you the desire to remain current in your field for the rest of your career. Our graduates have successfully advanced to become business, government, and community leaders.

Nearly 93% of College of Business Administration graduates report they are employed in their respective fields within three months of graduation or accepted into graduate programs.

Admission, Retention, and 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).

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

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
   - ECO 203 (3) Microeconomic Principles of Business
   - STA 282 (3) Intro to Statistics
   - OR STA 383 (3) Elementary Statistical Analysis
   - BUS 300 (3) Applied Business Statistics
   - BUS 301 (2) Integrated Business Experience
   - FIN 302 (3) Integrated Financial Analysis
   - MGT 308 (3) Human Resource Management
   - MGT 358 (3) Management Information Systems
   - MGT 499 (3) Integrated Management (Strategic Management)
   - BUS 303 (3) Applied Business Statistics
   - BUS 304 (3) Integrated Business Experience

   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).

2. Tier 2 Full Admission to Professional Business Studies will be awarded to students who satisfy the following requirements:
   - A. Completion of at least 42 semester credits with a minimum cumulative GPA of 2.50.
   - B. Completion of the following courses:
     - ECO 204 (3) Principles of Macro- and Global Economics
     - ACC 250 (3) Introduction to Financial Accounting
     - 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
   - C. A 2.0 minimum cumulative GPA in the following courses: BUS 100, BUS 101, ECO 203, ECO 204, ACC 250, BLR 235, and STA 282 or STA 382.

   *Tier 2 is a competitive selection process. Specific cumulative grade point requirement will be dependent upon the pool of applicants, with a minimum acceptable cumulative GPA of 2.50.

   Immediately following Tier 2 Admission, students should contact a departmental advisor in the College of Business Administration to sign a major and plan a program of study.

Maintaining Tier 2 Full Admission

Each student's B.S. in Business Administration degree program of study will include the following components:

1. Each student will complete a common set of required business courses. (See page 89)
2. Students must maintain a minimum cumulative GPA of 2.00 in the following BSBA degree courses:
   - ACC 255 (3) Managerial Accounting & Decision Making
   - MGT 258 (3) Information Systems
   - MGT 303 (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 Management (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.
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.

A. Additional common body of knowledge in Business Administration courses (9 hours):
   
   BUS 100 (3) Essential Business Skills
   BUS 300 (3) Applied Business Statistics
   MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Accounting courses (12 hours):
   
   ACC 301 (3) Intermediate Accounting I
   ACC 302 (3) Intermediate Accounting II
   ACC 321 (3) Managerial Cost Account
   ACC 370 (3) Accounting Systems and Controls

C. Select 9 credit hours from Accounting electives (9 hours):
   
   *ACC 311 (3) Federal Income Taxation I
   ACC 489 (1-3) Accounting Internship/Co-Op
   ACC 501 (3) Advanced Accounting
   ACC 521 (3) Managerial Cost Control Analysis
   *ACC 531 (3) Auditing and Assurance Services
   ACC 543 (3) Fund Accounting
   ACC 550 (3) Internal Auditing
   ACC 570 (3) Strategic Accounting Systems Development and Implementation
   ACC 597 (1-3) Special Topics in Accounting
   *These courses are required to take the CPA exam.

D. Required Management Information Systems (MIS) courses:
   
   BIS 228 (3) Computer Programming – COBOL
   BIS 420 (3) Systems Analysis and Design

E. Select 3 credit hours from the following programming languages' electives (3 hours):
   
   BIS 324 (3) Visual Basic Application Development
   BIS 328 (3) Structured Program Design (COBOL)
   BIS 357 (3) ABAP/4 Programming Fundamentals

F. Select 3 credit hours from the Management Information Systems' electives (3 hours):
   
   BIS 247 (3) SAP Enterprise Software in Business
   BIS 422 (3) Data Base Management Systems
   BIS 423 (3) Decision Support Systems
   BIS 424 (3) Client/Server Business Application Development
   BIS 480 (3) Telecommunications Management

Total : 42 semester hours
Pertinent information concerning the Accounting Information Systems major includes the following:

1. Minimum total semester credit hours required for graduation: 126.
2. After Tier 2 Full Admission into the College of Business Administration, any student majoring in Accounting Information Systems is required to have a cumulative GPA of 2.50 to sign a major.
3. At least 18 hours of accounting coursework must be taken at CMU for a major in Accounting Information Systems.
4. Introductory courses in accounting transferred to CMU are accepted for no more than six semester hours of credit.
5. No minor is required for Accounting Information Systems majors.
6. The only course available on a Credit/No credit basis that can be counted toward the Accounting Information Systems 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 Information Systems major.

Interdepartmental
General Business Administration Major
B.S. in B.A. degree
Advisor: Linda Wicander (105 Grawn, 774-3124)

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours):
   - BUS 100 (3) Essential Business Skills
   - BUS 300 (3) Applied Business Statistics
   - MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (9 hours):
   - FIN 442 (3) Intermediate Financial Management
   - MGT 348 (3) Dynamics of Organizational Behavior
   - MKT 310 (3) Marketing Communications

C. Area of Concentration (12-18 hours):
   1. General Business Administration (12 hours):
      - BIS 470 (3) Business Report Writing
      - BLR 302 (3) Law of Agreements
      - Plus six hours from Economics or the College of Business approved by the major advisor.

   2. Health Services Administration (18 hours):
      a. Required courses (12 hours):
         - HSC 317 (3) Community Health
         - HSC 512 (3) Special Topics in Health Education
         - HSC 520 (3) Health Services Administration
         - HSC 570 (3) Financial Aspects of Health Services Organizations
      b. HSC Electives (6 hours):
         - To be chosen in consultation with advisor.

Total: 30-36 semester hours

Interdisciplinary
Entrepreneurship Major
B.A.A. degree
Advisor: James Damitio (ABSC 168, 774-3699)

This major offers a unique learning experience to students who aspire to begin a business of their own or secure employment in a non-business career which is dependent upon entrepreneurship.

A. Required Courses (30 hours)
   - STA 282 (3) Introduction to Statistics*
   - ENT 200/BLR 200 (3) Introduction to Entrepreneurship Law
   - ENT 210/ACC 210 (3) Accounting Information for Entrepreneurial Decision Making
   - ENT 213/ECO 213 (3) Economics for Entrepreneurs
   - ENT 221/MKT 221 (3) Marketing Strategies for Entrepreneurs
   - ENT 300/BIS 300 (3) Software Applications in Business
   - ENT 320/FIN 320 (3) Financial Management of the Entrepreneurial Venture
   - ENT 416/MGT 416 (3) Entrepreneurship in the Global Economy
   - ENT 419/MGT 419 (3) Entrepreneurship and Small Business Management

B. Additional Requirements (4-10):
   - ENT 444 (4-10) Internship in Entrepreneurship/Not-For-Profit

Total: 34-40 semester hours

At least 50% of the credits required for graduation with the Entrepreneurship Major on this degree must be taken outside of the College of Business Administration.

*Prerequisites for this course must be met.

Interdepartmental
International Business Major
B.S. in B.A. degree
Advisor: Assigned by the Department of Management (774-3193)

A. Additional Common Body of Knowledge in Business Administration Courses (9 credit hours):
   - BUS 100 (3) Essential Business Skills
   - BUS 300 (3) Applied Business Statistics
   - MGT 499 (3) Integrated Capstone - Strategic Management

B. Required International Business Major Courses (15 credit hours):
   - ECO 372 (3) International Economics
   - FIN 573 (3) International Finance
   - MGT 365 (3) International Business
   - MGT 457 (3) Seminar in International Business
   - MKT 560 (3) International Marketing

C. Foreign Language Requirement (6 credit hours):
   - A minimum of 6 credit 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.

D. International Business Electives (6 credit hours)

1. International Experience (3-6 credit hours):
   - Participation in study-abroad with international emphasis, international work experience, or completion of a comprehensive research project with international emphasis. If 6 credit hours are earned in D.1., the requirement for D.2. is waived.

2. Electives (0-3 credit hours):
   - If only 3 credits are earned in D.1., select one course from the following list:
     - ANT/SOC 370 (3) Global Environmental Issues
     - ANT/SOC 457 (3) Sociocultural Dimension of the Global Economy
     - ECO 380 (3) Comparative Economic Systems
     - ECO 381 (3) Patterns of Economic Development
     - FRN 335 (3) French for Business
     - GEO 121 (3) Cultures of the World
     - GEO 346 (3) Geography of the Developing World
     - GER 335 (3) The Culture of the German Economy
     - GER 490 (3) Advanced German for Business
     - PSC 351 (3) International Relations
     - PSC 555 (3) International Law I
     - SPN 335 (3) Spanish for Business

Total: 36 credit hours
Interdepartmental

Purchasing and Supply Management
Major

B.S. in B.A. degree

Courses taken on a credit/no credit basis are not accepted on the Purchasing and Supply Management Major. This major is only available to students admitted to the College of Business Administration. This major can be signed by a designated faculty in either the Management or the Marketing and Hospitality Services Administration departments.

A. Additional Common Body of Knowledge In Business Administration Courses (9 hours):
   - BUS 100 (3) Essential Business Skills
   - BUS 300 (3) Applied Business Statistics
   - MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (18 hours):
   - MKT 330 (3) Marketing Channels
   - MKT 340 (3) Personal Selling
   - MKT 431 (3) Logistics Operations
   - MKT 333 (3) Purchasing Management
   - MKT 533 (3) Purchasing Strategy
   - MGT 542 (3) Inventory and Materials Management

C. Elective Courses (6 hours):
   - ACC 321 (3) Managerial Cost Accounting
   - MGT 365 (3) International Business
   - MGT 490 (3) Internship in Management
   - MGT 543 (3) Management and Control of Quality
   - MKT 305 (3) Buyer Behavior
   - MKT 490 (3) Internship in Marketing
   - MKT 555 (3) Market and Sales Forecasting
   - MKT 560 (3) International Business

*At least fifteen (15) credit hours of the required and elective coursework of the major must be scheduled through the College of Business Administration on the CMU campus.

Total: 33 semester hours

Minors

The Business Administration Minor is available to students pursuing nonteaching degrees outside the College of Business Administration. To graduate with this minor, no more than 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation. This minor is NOT available to students seeking the Bachelor of Science in Business Administration degree.

The College of Business Administration also offers specialized minors in certain departments. See the individual departmental sections for the requirements for these specialized minors.

Interdepartmental

Business Administration Minor

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

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

The Business Administration minor is available to students pursuing nonteaching degrees outside the College of Business Administration. The minor provides a broad background in business for students from other disciplines. This minor is NOT available to students seeking the Bachelor of Science in Business Administration degree.

Students who sign this minor may not earn more than 27 hours in the College of Business Administration. 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 (3) Concepts of Financial Accounting
   - ACC 202 (3) Concepts of Managerial Accounting
   - BIS 221 (3) Computers in Business I
   - BLR 202 (3) Legal Environment of Business
   - ECO 201 (3) Principles of Macroeconomics
   - MGT 312 (3) Introduction to Management
   - MKT 300 (3) Introduction to Marketing
   - FIN 332 (3) Managerial Finance

Total: 24 semester hours

Interdisciplinary

Entrepreneurship Minor


Advisor: James Damitio (ABSC, 774-3699)

This minor offers a unique learning experience to non-business students who aspire to begin a business of their own or secure employment in a non-business career which is dependent upon entrepreneurship. This minor is not available to students seeking the Bachelor of Science in Business Administration Degree.

A. Required Courses (9 hours):
   - ENT/ACC 210 (3) Accounting Information for Entrepreneurial Decision-Making
   - ENT/MKT 221 (3) Marketing Strategies for Entrepreneurs
   - BIS 300 (3) Software Applications for Business

B. Electives (9 hours) selected from the following:
   - ENT/BIS 200 (3) Introduction to Entrepreneurship Law
   - ECO 213 (3) Economics for Entrepreneurs
   - ENT/FIN 320 (3) Financial Management of the Entrepreneurial Venture
   - ENT/MGT 416 (3) Entrepreneurship in the Global Economy

C. Electives (3-4 hours) selected from the following:
   - ENT 492 (3) Special Issues in Entrepreneurship
   - ENT 444 (4-10) Internship in Entrepreneurship/Not-for-Profit

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.

A. Required Core Courses (9 hours)
MGT 365 (3) International Business
MKT 560 (3) International Marketing
FIN 573 (3) International Finance

B. Electives (12 hours) selected in consultation with your advisor:
1. One of the following (3 hours):
   - ECO 372 (3) International Economics
   - OR ECO 380 (3) Comparative Economic Systems
   - OR BIS 460 (3) Advanced Business Communication
   - OR PSC 150 (3) World Politics
2. One of the following (3 hours):
   - 3 hours in GEO with a Global emphasis.
3. Plus 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, MKT 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. See page 136 of this Bulletin for more information on the University Honors Program.

Accounting (ACC)

For information, please contact Philip Kintzele, Chairperson, 774-3796, 312 Grawn Hall

Why Study Accounting?

Accounting is the one degree that provides you with the education needed to succeed in every aspect of the business world. It is one of the courses to study at the university that enables a student to enter a profession upon graduation. It also prepares students to obtain their certification in public accounting (CPA), management accounting (CMA) and internal auditing (CIA) upon graduation.

Because accounting is the international language of business, it is a versatile degree that offers a wide range of career opportunities to graduates. Accountants have titles like "Chief Executive Officer," "Chief Financial Officer," "Managing Partner," and "Controller." They work for national and international business firms, government agencies, non-profit organizations and in their own companies. Many work in certified public accounting (CPA) firms providing management consulting services, auditing services, personal and financial planning and tax services. Others are hired as part of the management team to work in the finance and operations area of a company. Some are hired to manage the revenues of federal, state, and local governmental agencies and non-profit organizations.

Accounting At CMU

The primary purpose of the School of Accounting is to prepare students for professional careers in public accounting, corporate accounting, nonprofit entities, and other organizations. The school's mission is to honor this commitment by offering accounting programs of academic excellence, by providing a professional faculty, and by creating an environment which is, above all, learning centered and business connected. We are dedicated to delivering superior value to students: a small college focus on learning, coupled with a professional school experience, at a public university tuition.

The School of Accounting is one of only five programs in Michigan that have earned the prestigious accounting accreditation granted by the AACSB International.

(continued)
Accounting Major
B.S. in B.A. degree

Admission, Retention, and Termination Standards

1. To graduate with a major in accounting, the student must complete a minimum of 126 hours. Ninety hours must be in non-accounting courses.

2. After Tier 2 Full Admission into the College of Business Administration, any student majoring in Accounting is required to have a cumulative GPA of 2.50 to sign a major.

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 201 and ACC 202 at CMU).

5. No minor is required for accounting majors.

6. The only course available on a Credit/No Credit basis that can be counted toward the accounting major is ACC 489.

7. A maximum of three semester hours of credit in accounting courses numbered with the ending digits 80-99 can be counted toward the accounting major.

8. For additional information on CPA licensing, write: Michigan State Board of Accounting, Department of Consumer and Industry Services - Licensing Division, 2501 Woodlake Circle, Okemos, MI 48864; for the CMA certificate, write: Institute of Management Accounting, 10 Paragon Drive, Montvale, NJ 07645-1760; and for the CIA certificate, write: The Institute of Internal Auditors, 249 Maitland Avenue, P.O. Box 1119, Altamonte Springs, FL 32715-1119.

A. Accounting Core (21 hours):
   - ACC 301 (3) Intermediate Accounting I
   - ACC 302 (3) Intermediate Accounting II
   - ACC 311 (3) Federal Income Taxation I
   - ACC 321 (3) Managerial Cost Accounting
   - ACC 370 (3) Accounting Systems and Controls
   - ACC 501 (3) Advanced Accounting
   - ACC 531 (3) Auditing and Assurance Services

B. Additional Common Body of Knowledge in Business Administration courses (9 hours):
   - BUS 100 (3) Essential Business Skills
   - BUS 300 (3) Applied Business Statistics
   - MGT 499 (3) Integrated Capstone - Strategic Management

C. Accounting Business Electives (6-9 hours):
   1. Select 2 or 3 courses from the following (6-9 hours):
      - ACC 511 (3) Federal Income Taxation II
      - ACC 512 (3) Tax Administration and Research
      - ACC 517 (3) Federal Estate and Gift Taxation
      - ACC 521 (3) Managerial Cost Control Analysis
      - ACC 524 (3) Budgeting: Planning and Control
      - ACC 533 (3) Auditing Procedures and Statistical Sampling
      - ACC 535 (3) EDP Auditing and Control
      - ACC 543 (3) Fund Accounting
      - ACC 550 (3) Internal Auditing
      - ACC 570 (3) Strategic Accounting System Development and Implementation
   2. If only 2 courses are selected from C.1. above, select one course from the following list (0-3 hours):
      - ACC 489 (1-3) Accounting Internship/Co-Op
      - ACC 491 (1-3) Independent Studies

Accounting Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

Required Courses (18 hours):
   - ACC 201 (3) Concepts of Financial Accounting
   - ACC 202 (3) Concepts of Managerial Accounting
   - ACC 301 (3) Intermediate Accounting I
   - ACC 302 (3) Intermediate Accounting II
   - ACC 311 (3) Federal Income Taxation I
   - ACC 321 (3) Managerial Cost Accounting

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.
Why Study Business Information Systems?

The programs within Business Information Systems prepare students for high-technology careers in business or teaching. These programs and courses support careers in business teacher education, management information systems, office systems, and interdepartmental majors in accounting information systems and hospitality information systems.

Why Major in MIS (Management Information Systems)?

- One hundred percent of the Management Information Systems graduates received employment offers before or immediately following graduation.
- First year salaries were among the highest received by the College of Business Administration graduates.
- Internship opportunities with organizations such as Dow Chemical, Dow Corning Corporation, Eli Lilly, State Farm Insurance, Auto Owners Insurance, and Howmet Corporation.
- Modern lab facilities in the College of Business Administration with up-to-date software programs.
- SAP®, the world's leading Enterprise Resource Planning (ERP) software.

Why Major in Business Teacher Education (BTE)?

- A major in BTE can lead to a career in teaching/training at the secondary level, postsecondary level, and in the corporate setting.
- Michigan's teachers are among the most qualified in the nation with 99% of public secondary teachers holding a teaching certificate in their main teaching assignment.
- Michigan's teachers rank as the fourth highest paid in the nation.
- According to the U.S. Department of Labor (www.bls.gov), retirements in a number of education professions will create many job openings.
- According to the Department of Education, the nation will need more than a million new teachers by 2010.

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.

Accounting Information Systems
Major

B.S. in B.A. degree

This is an interdepartmental major. Please check the index for the page number.
Management Information Systems Major

B.S. in B.A. degree

Admission, Retention, and Termination Standards

Students must be admitted to Tier 2 Full Admission to Professional Business Studies (PBS). See Page 137 of this Bulletin for specific requirements.

With the exception of BIS 490, the department does not accept Credit/No Credit courses on undergraduate majors.

A. Additional Common Body of Knowledge in Business Administration (9 hours)
   BUS 100 (3) Essential Business Skills
   BUS 300 (3) Applied Business Statistics
   MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (21 hours)
   BIS 228 (3) Computer Programming-COBOL
   BIS 247 (3) SAP Enterprise Software in Business
   BIS 420 (3) Systems Analysis and Design
   BIS 422 (3) Data Base Management Systems
   BIS 423 (3) Decision Support Systems
   BIS 425 (3) Business Systems Applications
   BIS 480 (3) Telecommunications Management (Networking)

C. Select 6 credit hours from one of the following course combinations:
   BIS 324 (3) Visual Basic Application Development
   BIS 328 (3) Structured Program Design
   BIS 357 (3) ABAP/4 Programming Fundamentals
   BIS 424 (3) Client/Server Development

D. With the approval of an advisor, select 3 credit hours from BIS-related electives that include any courses not already selected in C or from:
   BIS 288 (3) Business Computer Graphics
   BIS 297 (3) Special Studies in Business Information Systems
   BIS 321 (3) Computers in Business II
   BIS 327 (3) Web Site Development
   BIS 397 (3) Special Studies in Business Information Systems
   BIS 350 (3) SAP Configuration and Implementation
   BIS 351 (3) Internship in Information Systems
   BIS 391 (3) Independent Study
   BIS 397 (3) Special Studies in Business Information Systems
   BIS 397 (3) Special Studies in Business Information Systems

Other courses as agreed upon by advisor.

Total: 39 semester hours

Minors

No more than a total of 27 hours may be taken in the College of Business Administration and counted toward graduation unless the student is majoring in the College of Business Administration.

Management Information Systems Minor

B.S. in B.A. degree

The student must have a signed major in the College of Business Administration to be eligible for this minor. Select the appropriate 21 credit hours from the following groups:

A. The required 6 credit hours from:
   BIS 228 (3) Computer Programming-COBOL
   BIS 420 (3) Systems Analysis and Design

B. Select 3 credit hours from:
   BIS 321 (3) Computers in Business II
   BIS 324 (3) Visual Basic Application Development
   BIS 328 (3) Structured Program Design

C. Select 6 credit hours from:
   BIS 422 (3) Data Base Management Systems
   BIS 423 (3) Decision Support Systems
   BIS 425 (3) Business Systems Applications

D. With the approval of an advisor, select 6 credit hours from BIS-related electives.

Total: 21 semester hours

Management Information Systems Non-Business Minor

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

This minor is available only to students whose major is outside the College of Business Administration.

Required Courses:

ACC 201 (3) Concepts of Managerial Accounting
ACC 202 (3) Concepts of Managerial Accounting
BIS 221 (3) Computers in Business I
BIS 228 (3) Computer Programming - COBOL
BIS 420 (3) Systems Analysis and Design
BIS 422 (3) Data Base Management Systems
BIS 425 (3) Business Systems Applications

Other courses as agreed upon by advisor.

Total: 21 semester hours

Majors and Minors

Business Teacher Education

Admission, Retention, and Termination Standards

A major in business teacher education may include a minor in general business (Plan A) or 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 352 (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.

Plan A Business Teacher Education Major

(requiring an Internal General Business Minor)

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

Admission Requirements, Retention and Termination Standards

Plan A business teacher education majors must be admitted to Professional Business Studies before enrollment in any upper-division College of Business Administration course. In order to be admitted, the following requirements must be met:

1. Completion of at least 56 semester credits with minimum GPA of 2.50.
2. Completion of the following courses with a minimum of 2.00 for these courses averaged together: ACC 201 (3); BLR 202 (3); ECO 201 (3); ECO 202 (3); ENG 201 (3); MGT 312 (3) Introduction to Management

Other courses as agreed upon by advisor.

Total: 39 semester hours
A. Required Courses (27 hours):
ACC 201 (3) Concepts of Financial Accounting
ACC 202 (3) Concepts of Managerial Accounting
ECO 201 (3) Principles of Macroeconomics
ECO 202 (3) Principles of Microeconomics
BIS 212 (3) Word Processing
BIS 251 (1) Field Experience in Business Education
BIS 321 (3) Computers in Business II
BIS 327 (3) Web Site Development
BIS 350 (3) Principles of Business Education
BIS 351 (1) Methods of Teaching Keyboarding/Word Processing
BIS 353 (1) Methods of Teaching Secondary Accounting
BIS 451 (3) Coordination in Vocational Education
B. One of the following concentrations (14-16 hours):
1. Marketing Education: MGT 312 (3), MGT 495 (3), MKT 220 (3), MKT 325 (3), BIS 356 (1), and one of the following: BIS 492 (3), ENT 221 (3), ENT 419 (3).
2. Office Education: BIS 109 (1), BIS 280 (3), BIS 288 (3), BIS 352 (1), BIS 370 (3), and one of the following: BIS 288 (3), OR BIS 480 (3).
Total: 41-43 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):
A. Required Courses (24 hours):
BLR 202 (3) Legal Environment of Business
FIN 332 (3) Managerial Finance
MKT 300 (3) Introduction to Marketing
BIS 221 (3) Computers in Business I
BIS 321 (3) Computers in Business
BIS 360 (3) Business Communication
BIS 401 (3) Cooperative Occupational Experience
OR MKT 422 (3) Cooperative/Internship in Retailing
STA 282 (3) Introduction to Statistics
OR STA 382 (3) Elementary Statistical Analysis
Total: 24 semester hours

Plan B Business Teacher Education Major (requiring a teaching minor from a department outside the College of Business Administration)
B.S. in Ed. degree, Provisional Secondary Certification and Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

Admission, Retention and Termination Standards
Plan B Business Teacher Education majors must meet the following requirements before a major can be signed and before enrollment in any upper-division College of Business Administration course:
1. Overall GPA of 2.50.
2. Completion of the following courses with a minimum of 2.00 for each of these courses: BIS 327 (3); BIS 221 or BIS 321 (3); BLR 202 (3); ACC 201 (3).

A. Required Courses (30 hours):
ACC 201 (3) Concepts of Financial Accounting
ACC 202 (3) Concepts of Managerial Accounting
BLR 202 (3) Legal Environment of Business
BIS 212 (3) Word Processing
BIS 221 (3) Computers in Business I
BIS 251 (1) Field Experience in Business Education
BIS 327 (3) Web Site Development
BIS 350 (3) Principles of Business Education
BIS 351 (1) Methods of Teaching Keyboarding/Word Processing
BIS 353 (1) Methods of Teaching Secondary Accounting
BIS 451 (3) Coordination in Vocational Education
B. One of the following concentrations (11 - 13 hours):
1. Marketing Education: MKT 220 (3), MKT 300 (3), MKT 325 (3), BIS 356 (1), and one of the following: BIS 492 (3), ENT 221 (3), ENT 419 (3).
2. Office Education: BIS 109 (1), BIS 280 (3), BIS 352 (1), BIS 370 (3), and one of the following: BIS 288 (3), OR BIS 480 (3).
Total: 41-43 semester hours
Why Study Economics?

Economics is the study of how mankind satisfies its many material wants and needs. An understanding of economic principles 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 secure 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).

Admission, Retention, and Termination Standards

For the B.S. in B.A. Degree:
To sign a major in Economics:
• A student must first be admitted to Tier 2 Full Admission to Professional Business Studies (see page 137 of this Bulletin for specific requirements).
• Up to six (6) hours may be taken as Credit/No Credit and counted toward the major.
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.

For the B.S. or B.A. Degrees:
To sign a major in Economics:
• Up to six (6) hours may be taken as Credit/No Credit and counted toward the major.
• Students earning the Economics major on the B.A. or B.S. degrees are strongly advised to complete the math requirement early in their academic program.
To sign a minor in Economics: See an advisor in the Department of Economics and bring along a copy of your signed major.
• Up to six (6) hours may be taken as Credit/No Credit and counted toward the minor.
• No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation unless the student is majoring in the College of Business Administration.
Major

Economics Major
B.A.; B.S. degrees

Required Economics Courses (15 hours):
ECO 201 (3) Principles of Macroeconomics
ECO 202 (3) Principles of Microeconomics
ECO 306 (3) Money and Banking
ECO 365 (3) Intermediate Microeconomic Theory
ECO 370 (3) Intermediate Macroeconomic Theory

Required Mathematics Courses (4 hours)*:
MTH 217 (4) Business Calculus
OR MTH 132 (4) Calculus I

Required Statistics Courses (3 hours)*:
STA 282 (3) Introduction to Statistics
OR ECO 285 (3) Statistical Methods in Economics
OR STA 382 (3) Elementary Statistical Analysis

Electives: 15 hours of economics courses to be selected in consultation with an economics department advisor, 12 of which must be numbered 300 or above.

Total: 37 semester hours

*Students are strongly advised to complete these courses early in their academic program. Note that MTH 130 is a prerequisite for STA 382.

Electives: 15 hours of economics courses to be selected in consultation with an economics department advisor, 12 of which must be numbered 300 or above.

Total: 37 semester hours

Economics Minor
B.A.; B.S.; B.A.A.

Required Courses (6 hours):
ECO 201 (3) Principles of Macroeconomics
ECO 202 (3) Principles of Microeconomics

Electives: 15 hours of economics courses to be selected in consultation with an economics department advisor, 9 of which must be numbered 300 or above.

Total: 21 semester hours

Students majoring or minoring in Economics may take up to six hours of credit/no credit work in Economics.

Minor

Economics Minor
B.A.; B.A.A.; B.S.

Required Courses (6 hours):
ECO 201 (3) Principles of Macroeconomics
ECO 202 (3) Principles of Microeconomics

Electives: 15 hours of economics courses to be selected in consultation with an economics department advisor, 9 of which must be numbered 300 or above.

Total: 21 semester hours

Students majoring or minoring in Economics may take up to six hours of credit/no credit work in Economics.

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 and Personal Financial Planning, and minors in Legal Studies and 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.

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.

Admission, Retention, and Termination Standards

To sign a major in Finance or Personal Financial Planning:

- A student must first be admitted to Tier 2 Full Admission to Professional Business Studies (see page 137 of this Bulletin for specific requirements).
- 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.

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.

- At least fifteen hours of finance coursework must be taken at CMU.
- Credit/No Credit coursework will not count.
- 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.

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.

Finance Major

B.S. in B.A. degree

The Finance Major prepares students for careers in banking, corporate finance, and investments.

A. Additional Common Body of Knowledge in Business Administration (9 hours):
- BUS 100 (3) Essential Business Skills
- BUS 300 (3) Applied Business Statistics
- MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (21 hours):
- FIN 315 (3) Principles of Investments
- FIN 425 (3) Options and Futures
- FIN 442 (3) Intermediate Financial Management
- FIN 448 (3) Fundamental Financial Analysis
- FIN 472 (3) Money and Capital Markets
- FIN 499 (3) Advanced Financial Management
- FIN 573 (3) International Finance

C. Electives (6 hours): Selected from the following courses with the approval of advisor.

1. Accounting Electives (3-6 hours)
   - ACC 301 (3) Intermediate Accounting I
   - ACC 302 (3) Intermediate Accounting II
   - ACC 311 (3) Federal Income Taxation II
   - ACC 321 (3) Managerial Cost Accounting

2. Finance Electives (0-3 hours)
   - FIN 230 (3) Real Estate Fundamentals
   - OR Any Finance course 300-level or above

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.

A. Additional Common Body of Knowledge in Business Administration (9 hours):
   - BUS 100 (3) Essential Business Skills
   - BUS 300 (3) Applied Business Statistics
   - MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (21 hours):
   - FIN 307 (3) Fundamentals of Personal Financial Planning
   - FIN 315 (3) Principles of Investments
   - FIN 317 (3) Insurance Planning
   - FIN 347 (3) Retirement Planning
   - FIN 445 (3) Personal Estate Planning
   - FIN 447 (3) Cases in Personal Financial Planning
   - ACC 311 (3) Federal Income Taxation

C. Electives (6 hours) Select 2 courses from the following:
   - FIN 230 (3) Real Estate Fundamentals
   - FIN 425 (3) Options and Futures
   - FIN 442 (3) Intermediate Financial Management
   - FIN 472 (3) Money & Capital Markets
   - FIN 482 (3) Working Capital Management
   - FIN 490 (3) Internship in Finance
   - FIN 573 (3) International Finance
   - MKT 340 (3) Personal Selling

Total: 36 semester hours

Minors

Finance Minor

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

A. Required Courses (12 hours):
   - ACC 201 (3) Concepts of Financial Accounting
   - ACC 202 (3) Concepts of Managerial Accounting
   - ECO 201 (3) Principles of Macroeconomics
   - FIN 332 (3) Managerial Finance

B. Electives (12 hours):
   - An additional 12 hours of 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.

A. Required Courses: (6 hours)
   - BLR 202 (3) Legal Environment of Business
   - BLR 302 (3) Law of Agreements

B. Other Required Courses

1. Two courses from the following (6 hours)
   a. BLR 110 (3) Alternative Dispute Resolution in Business and Society
   b. HUM 201 (3) The Classical World: Law and Society

2. One course from the following (3 hours):
   - BLR 222 (3) The Search for Racial Justice through Law
   - BLR 325 (3) Women and Law
   - BLR 365 (3) The Search for Native American Justice through Law

3. One course from the following (3 hours):
   - BLR 410 (3) Regulatory Law
   - ECO 410 (3) Government and Business
   - PSC 320 (3) The American Legislative Process
   - PSC 522 (3) Regulatory Processes and Administrative Law

4. One course from the following (3 hours):
   - BLR 328 (3) Employment Law
   - BLR 360 (3) Construction Law
   - BLR 491 (3) Independent Studies
   - BLR 521 (3) Environmental Law and Policy
   - BLR 597 (3) Special Topics

Any other law-related course as approved by an advisor.

Total: 21 semester hours

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 which 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.

Admission, Retention, and Termination Standards
To sign a major in General Management, Human Resource Management, International Business, Operations Management, and Purchasing and Supply Management:
• A student must first be admitted to Tier 2 Full Admission to Professional Business Studies (see page 137 of this Bulletin for specific requirements).
• 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.

To sign a minor in Management:
• A minimum cumulative GPA of 2.5 based on completion of at least 56 credit hours is required.
• 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.
• No more than a total of 27 hours of credit earned in business courses, including business transfer hours, may be counted towards graduation. Courses taken credit/no credit basis are not accepted on the management department minor.
Majors

General Management Major
B.S. in B.A. degree

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours):
   BUS 100 (3) Essential Business Skills
   BUS 300 (3) Applied Business Statistics
   MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (18 hours):
   FIN 442 (3) Intermediate Financial Management
   MKT 310 (3) Marketing Communications
   MGT 320 (3) Human Resource Management
   MGT 348 (3) Dynamics of Organizational Behavior
   MGT 355 (3) Communications: Managerial Applications
   MGT 365 (3) International Business

C. Electives (3 hours) from the College of Business Administration: Any College of Business Administration course, 300 level or higher.

D. Required Internship Experience (3 hours)
   MGT 490 (3) Internship in Management

Total: 33 semester hours

Human Resources Management Major
B.S. in B.A. degree

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours):
   BUS 100 (3) Essential Business Skills
   BUS 300 (3) Applied Business Statistics
   MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (18 hours):
   MGT 320 (3) Human Resource Management
   MGT 348 (3) Dynamics of Organizational Behavior
   MGT 445 (3) Compensation Administration
   MGT 446 (3) Industrial Relations
   MGT 447 (3) Personnel Selection and Evaluation
   MGT 484 (3) Human Resource Training and Development

C. Electives (3 hours) from the College of Business Administration approved by the major advisor.

Total: 30 semester hours

Operations Management Major
B.S. in B.A. degree

A. Additional Common Body of Knowledge in Business and Administration Courses (9 hours):
   BUS 100 (3) Essential Business Skills
   BUS 300 (3) Applied Business Statistics
   MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Courses (12 hours):
   MGT 333 (3) Purchasing Management
   MGT 335 (3) Introduction to Management Science
   MGT 543 (3) Management and Control of Quality
   MGT 545 (3) Operations Strategy

C. Elective Courses (9 hours):
   MGT 320 (3) Human Resource Management
   MGT 442 (3) Computer Applications for Production/Operations Management
   MGT 446 (3) Industrial Relations
   MGT 542 (3) Inventory and Materials Management
   MGT 530 (3) Distribution Channel Systems
   MGT 431 (3) Logistics Operations
   MGT 432 (3) Logistics Strategy
   MGT 465 (3) Supply Chain Management
   ACC 321 (3) Managerial Cost Accounting
   IET 375 (3) Robotics
   IET 524 (3) Technology and Environment
   IET 527 (3) Industrial Safety Management

   Internet, computer software applications, library search and other computer technology are discussed in this class.

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.

A. Required Courses (9 hours):
   MGT 312 (3) Introduction to Management
   MGT 320 (3) Human Resource Management
   MGT 348 (3) Dynamics of Organizational Behavior

B. Elective Courses (12 hours):
   1. Six hours from the Department of Management as approved by the minor advisor.
   2. Six hours from the College of Business Administration as approved by the minor advisor.

Total: 21 semester hours

Purchasing and Supply Management Major
B.S. in B.A. degree

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

International Business Major
B.S. in B.A. degree

Advisor: Assigned by the Department of Management (774-3193)

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

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.

Admission, Retention, or Termination Standards

To sign a major in Hospitality Services Administration, Logistics Management, Marketing, Retail Management, or Purchasing and Supply Management:

- A student must first be admitted to Tier 2 Full Admission to Professional Business Studies (see page 137 of this Bulletin for specific requirements).
- Credit/No Credit coursework will not count on any major within the Department of Marketing and Hospitality Services Administration.

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.
- At least fifteen hours beyond their major requirements are required for business majors.
- Completion of ECO 201 with a grade of 2.0 or higher is required.
- At least 56 credit hours earned is required.
- 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.

To sign a minor in Retailing:

- See an advisor in the Department of Marketing and Hospitality Services Administration:
  - At least fifteen hours beyond their major requirements are required for business majors.
  - Completion of ACC 201 with a grade of 2.0 or higher is required.
  - Completion of MKT 220 with a grade of 2.0 or higher is required.
  - 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.

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.
- At least fifteen hours beyond their major requirements are required for business majors.
- Transfer students must have completed one semester at CMU.
- 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.
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.

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 (3) Essential Business Skills
BUS 300 (3) Applied Business Statistics
MGT 499 (3) Integrated Capstone - Strategic Management

B. Hospitality Services Administration Courses (12 hours)
HSA 331 (3) Hospitality Industry Information Systems
HSA 350 (3) Lodging Operations
HSA 447 (3) Financial Management in the Hospitality Sector
HSA 546 (3) Management in the Hospitality Service Sector

C. Plus one of the Hospitality Concentrations (15-16 hours)
A concentration in one of the areas of hospitality designated below will be taken to complete the major requirement:

1. Hospitality Services (15-16 hours)
   HSA 341 (3) Services Marketing
   HSA 445 (3) Advanced Food and Beverage Systems Management
   HSA 490 (3) Hospitality Internship
   HEV 365 (2) Quantity Food Production
   HEV 366 (2) Quantity Food Production Laboratory

Plus one of the following with advisor approval:
HSA 210 (3) Effective Supervision: Principles and Practices
HSA 342 (3) Hospitality Facilities
HSA 343 (3) Tourism
HSA 344 (3) Legal Aspects of Hospitality Services
HSA 390 (3) Field Studies in Hospitality Services Administration
HSA 397 (3) Special Topics
HSA 597 (3) Special Topics
HEV 363 (1) Food Safety and Sanitation

2. Gaming and Entertainment Management (16 hours)*
   HSA 491 (4) Independent Study (Specialized Internship)
   HOA 334 (3) Casino Operations and Management
   HOA 339 (3) Protection of Casino Table Games
   HOA 437 (3) Gaming Regulations and Control

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

*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.

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours)
BUS 100 (3) Essential Business Skills
BUS 300 (3) Applied Business Statistics
MGT 499 (3) Integrated Capstone - Strategic Management

B. Required Marketing Foundation Courses (9 hours):
MKT 305 (3) Buyer Behavior
MKT 330 (3) Marketing Channels
MKT 350 (3) Marketing Analysis

C. Required Logistics Management Courses (12 hours):
MKT 431 (3) Logistics Operations
MKT 432 (3) Logistics Strategy
MKT 465 (3) Supply Chain Management
MGT 333 (3) Industrial Purchasing

D. Electives Selected from the Following (6 hours):
ACC 300 (3) Corporate Financial Reporting and Reporting Analysis
ACC 321 (3) Managerial Cost Accounting
BIS 423 (3) Decision Support Systems
FIN 442 (3) Intermediate Financial Management
FIN 482 (3) Working Capital Management
GEO 317 (3) Economic Geography
GEO 320 (3) Population Geography
MGT 446 (3) Industrial Relations
MKT 310 (3) Marketing Communications
MKT 320 (3) Retail Management
MKT 340 (3) Personal Selling
MKT 490 (3) Internship in Marketing
MKT 555 (3) Marketing and Sales Forecasting
MKT 560 (3) International Marketing

Total: 36 semester hours

Marketing and Hospitality Services Administration
Marketing Major

B.S. in B.A. degree

General Marketing Major

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours):
- BUS 100 (3) Essential Business Skills
- BUS 300 (3) Applied Business Statistics
- MGT 499 (3) Integrated Capstone - Strategic Management

B. Marketing Courses (18 hours):
- MKT 305 (3) Buyer Behavior
- MKT 310 (3) Marketing Communications
- MKT 330 (3) Marketing Channels
- MKT 350 (3) Marketing Analysis
- MKT 490 (3) Internship in Marketing
- MKT 499 (3) Strategic Marketing Problems

C. Planned Program Selected From the Following (6 hours):
- MKT 315 (3) Advertising Media
- MKT 320 (3) Retail Management
- MKT 325 (3) Merchandising Management
- MKT 340 (3) Personal Selling
- MKT 341 (3) Services Marketing
- MKT 425 (3) Retail Strategy
- MKT 431 (3) Logistics Operations
- MKT 432 (3) Logistics Strategy
- MKT 440 (3) Sales Management
- MKT 445 (3) Business Marketing
- MKT 450 (3) Marketing Research
- MKT 555 (3) Marketing/Sales Forecasting
- MKT 560 (3) International Marketing

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.

1. Marketing Communications (12 hours):
- JRN 350 (3) Public Relations
  OR JRN 360 (3) Advertising Principles
- MKT 315 (3) Advertising Media
- MKT 410 (3) Advertising Management
- MKT 415 (3) Promotions and Direct Marketing

2. Retail Strategy (12 hours):
- MKT 320 (3) Retail Management
- MKT 325 (3) Merchandising Management
- MKT 425 (3) Retail Strategy
  One of the following:
  - JRN 360 (3) Advertising Principles
  - IPC 361 (3) Dynamics of Interpersonal Communications
  - HEV 256 (3) Fashion Merchandising

3. Sales Management and Customer Service (12 hours):
- MKT 340 (3) Personal Selling
- MKT 440 (3) Sales Management
- IPC 365 (3) Persuasion
  One of the following:
  - MKT 445 (3) Business Marketing
  - MKT 560 (3) International Marketing

Total: 33-39 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.

A. Additional Common Body of Knowledge in Business Administration Courses (9 hours):
- BUS 100 (3) Essential Business Skills
- BUS 300 (3) Applied Business Statistics
- MGT 499 (3) Integrated Capstone - Strategic Management

B. Retail Management Courses (21 hours):
- MKT 220 (3) Introduction to Retail Management
- MKT 320 (3) Retail Management
- MKT 325 (3) Merchandising Management
- MKT 330 (3) Marketing Channels
- MKT 422 (3) Cooperative/Internship in Retailing
- MKT 425 (3) Retail Strategy
- MKT 492 (3) Practicum in Small Business

C. Three hours selected from one of the following (3 hours):
- MKT 310 (3) Marketing Communications
- MKT 340 (3) Personal Selling
- HEV 356 (3) Visual Merchandising
- HEV 456 (3) Fashion Buying
- IPC 361 (3) Dynamics of Interpersonal Communication
- BIS 445 (3) Small Business Organization and Operations

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.
Marketing and Hospitality Services Administration

**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.

**A. Required Core Courses (9 hours):**
- ECO 201 (3) Principles of Macroeconomics
- MKT 300 (3) Introduction to Marketing
- MGT 312 (3) Fundamentals of Management

**B. Electives (9 hours) selected from the following courses with approval of advisor. At least three hours must be selected from 400 level courses.**
- HSA 210 (3) Effective Supervision: Principles and Practices
- HSA 331 (3) Hospitality Industry Information Systems
- HSA 341 (3) Services Marketing
- HSA 342 (3) Hospitality Facilities
- HSA 343 (3) Tourism
- HSA 344 (3) Legal Aspects of Hospitality Services
- HSA 350 (3) Lodging Operations
- HSA 445 (3) Advanced Food and Beverage Systems Management
- HSA 447 (3) Financial Management in the Hospitality Service Sector
- HSA 546 (3) Management in the Hospitality Service Sector

**C. Electives (6 hours) 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 (3) Concepts of Financial Accounting
- ACC 202 (3) Concepts of Managerial Accounting
- BIS 221 (3) Computers in Business I
- BLR 202 (3) Legal Environment of Business
- HEV 160 (4) Introduction to Foods
- HEV 365 (2) Quality Food Production
- HEV 366 (2) Quality Food Production Laboratory

**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.

**A. Required Core Courses (9 hours):**
- ECO 201 (3) Principles of Macroeconomics
- MKT 300 (3) Introduction to Marketing
- MKT 305 (3) Buyer Behavior

**B. Electives (12 hours) selected from the following:**
- MKT 310 (3) Marketing Communications
- MKT 320 (3) Retail Management
- MKT 325 (3) Merchandising Management
- MKT 330 (3) Marketing Channels
- MKT 340 (3) Personal Selling
- MKT 341 (3) Services Marketing
- MKT 350 (3) Marketing Analysis
- MKT 410 (3) Advertising Management
- MKT 431 (3) Logistics Operations
- MKT 435 (3) Transportation
- MKT 440 (3) Sales Management
- MKT 445 (3) Business Marketing
- MKT 560 (3) International Marketing

**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 Sports 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.

**A. Introductory Core Courses (6 hours):**
- ACC 201 (3) Concepts of Financial Accounting
- MKT 220 (3) Introduction to Retail Merchandising

**B. Required Core Courses (15 hours):**
- MKT 300 (3) Introduction to Marketing
- MKT 310 (3) Marketing Communications
- MKT 320 (3) Retail Management
- MKT 325 (3) Merchandising Management
- MKT 330 (3) Marketing Channels

**Total: 21 semester hours**

College of Communication and Fine Arts

Sue Ann Martin, Dean
Diane Krider, Interim Associate Dean
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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 Speech Communication and Dramatic Arts), and four interdisciplinary programs (Integrative Public Relations, Museum Studies, 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)

Speech Communication and Dramatic Art (Interpersonal and Public Communication, Organizational Communication, Theatre & Interpretation, Acting, Design Technology, Dance)

Integrative Public Relations

Media Design, Production, and Technology

Museum Studies

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 Speech 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.

Admission, Retention, and Termination Standards

**B.A. in Art.** The B.A. in Art consists of 57 semester hours arranged in consultation with a department advisor. B.A. majors are required to earn a minimum grade of C in each Art curriculum course. Students must complete the classes listed as Foundations 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.

**B.A. Degree.** This art major consists of 39 semester hours arranged in consultation with a department adviser. A minimum 2.0 GPA (C) must be earned in all classes in the major. 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 39 semester hours arranged in consultation with a department adviser. A minimum 2.0 GPA (C) must be earned in all classes in the major. Courses taken on a credit/no credit basis may not be counted toward fulfillment of requirements for the art major or minor.

**B.F.A. degree.** 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 the classes listed as Foundations 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 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 Concentration and the Three-dimensional Concentration may be applied for when students have completed 24 hours of art classes, including 15 hours in foundations, one class in art history and two classes in a chosen area of concentration. Students seeking admission to the Graphic Design Concentration must either:

a. Pass upon completion of ART 135 and ART 349 a Graphic Design exam with a grade of “C” or
b. In the case of transfer students, submit a portfolio.

Admission is limited. Students who fail to be accepted are welcome to apply the following year.

In addition to the course requirements as stated in the general curricula section of this Bulletin, the candidate for the B.F.A. degree must complete the following requirements:

1. Select an advisory committee to be composed of three faculty members, one of whom must be in the student’s area of concentration. The candidate must meet with this committee for at least three consecutive semesters before his/her B.F.A. exhibition.
2. Present an exhibition of work in the student’s area of concentration during the last year.
3. Submit to the advising committee a written statement including slides, photographs, color copies, a video and/or CD of the work presented in the exhibition.

Courses taken on a credit/no credit basis may not be counted toward fulfillment of requirements for the art major or minor.

**B.S. in Ed. degree, Provisional Secondary Certification, Grades K-12.** This art major consists of 51 semester hours arranged in consultation with a department 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.
Majors

Art Major

B.F.A. degree

Required Courses (42 hours)

Foundations: 14 hours
ART 105 (3) Drawing I - Introduction
ART 115 (3) Design I
ART 117 (2) Introduction to Contemporary Issues in Art
ART 215 (3) Design II
ART 231 (3) Color and Composition

General Core: 13 hours
ART 140 (3) Photography I
ART 150 (3) Printmaking I
OR ART 160 (3) Sculpture I
ART 205 (3) Drawing II
OR ART 216 (3) Introduction to Figure Drawing
ART 318 (3) Aesthetics
ART 471 (1) BFA Exhibition

Art History: 15 hours
ART 185 (3) Introduction to Western Art, Part I
ART 285 (3) Introduction to Western Art, Part II
ART 385 (3) Art in the Twentieth Century
ART 485 (3) Seminar in Contemporary Art

Plus 3 hours of additional art history selected from:
ART 319 (3) Art Criticism
ART 341 (3) History of Photography
ART 363 (3) Design: The Interface of Art and Industry
ART 380 (3) Greek Art and Architecture
ART 381 (3) Early Christian and Byzantine Art
ART 382 (3) Women and Art
ART 383 (3) Modern Architecture
ART 384 (3) Arts of Non-European Traditions
ART 386 (3) American Art from the Colonial Period to 1913
ART 387 (3) Arts of Africa, Oceania, and the Americas
ART 388 (3) Pre-Columbian Art of the America
ART 480 (3) Roman Art and Architecture
ART 481 (3) Western Medieval Art
ART 482 (3) Italian Renaissance Art
ART 483 (3) Nineteenth Century European Painting
ART 486 (3-6) Independent Study in Art History
ART 487 (3) Indigenous Arts of North America
ART 489 (3) Shamanism and Art in Siberia and North America
ART 586 (3) Seminar in Art History

Electives in Art: 3 hours selected in consultation with major advisor.

A major studio area: 33 hours in consultation with an advisor within one of the three areas of concentration.

Two-Dimensional Concentration

Drawing Emphasis:
ART 216 (3) Introduction to Figure Drawing
ART 316 (3) Intermediate Figure Drawing
ART 416 (3) Advanced Figure Drawing
ART 516 (3) Advanced Problems in Figure Drawing
ART 205 (3) Drawing II
ART 305 (3) Drawing III
ART 331 (3) Figure Painting
ART 336 (3) Illustration
ART 405 (3) Advanced Drawing

Painting Emphasis:
ART 130 (3) Painting I
ART 230 (3) Painting II
ART 330 (3) Painting III
ART 334 (3) Watercolor Painting
ART 430 (3) Painting IV
ART 530 (3) Painting V

Printmaking Emphasis:
ART 250 (3) Printmaking II
ART 350 (3) Printmaking III
ART 450 (3) Printmaking IV
ART 550 (3) Printmaking V

Photography Emphasis:
ART 140 (3) Photography I
ART 239 (3) Digital Imaging I
ART 240 (3) Photography II
ART 339 (3) Digital Imaging II
ART 340 (3) Photography III
ART 440 (3) Photography IV
ART 540 (3) Photography V
ART 542 (3) Photographic Illustration
ART 543 (3) Alternative Photographic Processes

Three-Dimensional Concentration

Fiber Design Emphasis:
ART 170 (3) Weaving/Fiber Design I
ART 270 (3) Fiber Design II
ART 370 (3) Fiber Design III
ART 371 (3) Papermaking
ART 375 (3) Surface Design on Fabric
ART 470 (3) Fiber Design IV
ART 570 (3) Fiber Design V
ART 572 (3) Advanced Papermaking
ART 575 (3) Surface Design on Fabric II

Sculpture Emphasis:
ART 160 (3) Sculpture I
ART 260 (3) Making Multiples: Sculpture
ART 360 (3) Figurative Sculpture
ART 361 (3) 4-D: Installation, Performance, and Environmental Sculpture
ART 460 (3) Contemporary Bronze Casting
ART 461 (3) Light Metals Sculpture
ART 560 (3) Professional Development in Sculpture

Ceramics Emphasis:
ART 110 (3) Ceramics I: Introduction to Handbuilding
ART 210 (3) Ceramics II: Introduction to Pottery
ART 211 (3) Raku Workshop
ART 310 (3) Ceramics III: New Traditions in Ceramics
ART 410 (3) Ceramics IV
ART 510 (3-12) Advanced Ceramics
ART 511 (3) Glaze Composition
ART 512 (3) Kiln Construction

Design/Graphic Design Concentration

Design Emphasis:
ART 315 (3) Design III
ART 415 (3) Design IV
ART 515 (3) Design V

Graphic Design Emphasis:
ART 135 (3) Introduction to Graphic Design
ART 235 (3) Logo and Identity Design
ART 335 (3) Design Bureau
ART 349 (3) Typography
ART 363 (3) Design: Interface of Art and Industry
ART 435 (3) Print Production for Graphic Design
ART 437 (3) Designing for the Web
ART 438 (3) Motion Graphics
ART 449 (3) Advanced Typography
ART 535 (3) Digital Multimedia for Designers

Total: 78 semester hours
Visual Arts Education Major
B.S. in Ed. degree, Provisional Secondary Certification, Grades K-12

Required Courses (33 hours):
- ART 105 (3) Drawing I - Introduction
- ART 115 (3) Design I
- ART 150 (3) Printmaking I
- ART 215 (3) Design II
- ART 285 (3) Introduction to Western Art, Part II
- ART 318 (3) Aesthetics
- ART 343 (3) Art in the Elementary School Grades K-4
- ART 344 (3) Art in the Middle School Grades 5-8
- ART 346 (3) Secondary School Art and Mid-Tier Observation
- ART 384 (3) Arts of Non-European Traditions
- ART 446 (3) Visual Arts and Aesthetic Education
- Plus 3 hours in art/design history, or art criticism.
- Plus a studio concentration of 9 hours (if drawing or design is elected, these must be beyond basic requirements).
- Plus one course each in two studio areas other than the concentration for a total of 6 credit hours.

Total: 51 semester hours

Art Major
B.A.A. degree

Required Courses (27 hours):
- Foundations: 14 hours
  - ART 105 (3) Drawing I - Introduction
  - ART 115 (3) Design I
  - ART 117 (2) Introduction to Contemporary Issues in Art
  - ART 215 (3) Design II
  - ART 231 (3) Color and Composition
- Plus 12 credits in art history chosen from:
- Plus ART 499 (1) Senior Seminar

Electives: 6 hours, selected in consultation with major advisor.
- Plus a major studio area of 24 hours within one area of concentration, selected in consultation with a major advisor.

Two-Dimensional Concentration

Drawing Emphasis:
- ART 216 (3) Introduction to Figure Drawing
- ART 316 (3) Intermediate Figure Drawing
- ART 336 (3) Illustration
- ART 416 (3) Advanced Figure Drawing
- ART 516 (3) Advanced Problems in Figure Drawing
- ART 205 (3) Drawing II
- ART 305 (3) Drawing III
- ART 405 (3) Advanced Drawing

Painting Emphasis:
- ART 130 (3) Painting I
- ART 230 (3) Painting II
- ART 330 (3) Painting III
- ART 331 (3) Figure Painting
- ART 334 (3) Watercolor Painting
- ART 430 (3) Painting IV
- ART 530 (3) Painting V

Printmaking Emphasis:
- ART 150 (3) Printmaking I
- ART 250 (3) Printmaking II
- ART 350 (3) Printmaking III
- ART 450 (3) Printmaking IV
- ART 550 (3) Printmaking V

Photography Emphasis:
- ART 140 (3) Photography I
- ART 239 (3) Digital Imaging I
- ART 240 (3) Photography II
- ART 339 (3) Digital Imaging II
- ART 340 (3) Photography III
- ART 440 (3) Photography IV
- ART 540 (3) Photography V
- ART 542 (3) Photographic Illustration
- ART 543 (3) Alternative Photographic Processes

Three-Dimensional Concentration

Fiber Design Emphasis:
- ART 170 (3) Weaving/Fiber Design I
- ART 270 (3) Fiber Design II
- ART 370 (3) Fiber Design III
- ART 371 (3) Papermaking
- ART 375 (3) Surface Design on Fabric
- ART 470 (3) Fiber Design IV
- ART 570 (3) Fiber Design V
- ART 572 (3) Advanced Papermaking
- ART 575 (3) Surface Design on Fabric II

Sculpture Emphasis:
- ART 160 (3) Sculpture I
- ART 260 (3) Making Multiples: Sculpture
- ART 360 (3) Figurative Sculpture
- ART 361 (3) 4-D: Installation, Performance, and Environmental Sculpture
- ART 460 (3) Contemporary Bronze Casting
- ART 461 (3) Light Metals Sculpture
- ART 560 (3) Professional Development in Sculpture

Ceramics Emphasis:
- ART 110 (3) Ceramics I: Introduction to Handbuilding
- ART 210 (3) Ceramics II: Introduction to Pottery
- ART 211 (3) Raku Workshop
- ART 310 (3) Ceramics III: New Traditions in Ceramics
- ART 410 (3) Ceramics IV
- ART 510 (3-12) Advanced Ceramics
- ART 511 (3) Glaze Composition
- ART 512 (3) Kiln Construction

Total: 57 semester hours

Art Major
B.A.; B.S. degrees

Required Courses (36 hours):
- ART 105 (3) Drawing I - Introduction
- ART 115 (3) Design I
- ART 117 (2) Introduction to Contemporary Issues in Art
- ART 185 (3) Introduction to Western Art, Part I
- ART 215 (3) Design II
- ART 285 (3) Introduction to Western Art, Part II
- ART 499 (1) Senior Seminar
- Plus one course (3 credits) from any area in the three-dimensional concentration. Plus a major studio area of 12 hours within one area of concentration, selected in consultation with advisor.

Electives: 3 hours, selected in consultation with advisor.

Two-Dimensional Concentration

Drawing:
- ART 216 (3) Introduction to Figure Drawing
- ART 316 (3) Intermediate Figure Drawing
- ART 336 (3) Illustration
- ART 416 (3) Advanced Figure Drawing
- ART 516 (3) Advanced Problems in Figure Drawing
- ART 205 (3) Drawing II
- ART 305 (3) Drawing III
- ART 405 (3) Advanced Drawing

Painting:
- ART 130 (3) Painting I
- ART 230 (3) Painting II
- ART 330 (3) Painting III
- ART 331 (3) Figure Painting
- ART 334 (3) Watercolor Painting
- ART 430 (3) Painting IV
- ART 530 (3) Painting V

Printmaking:
- ART 150 (3) Printmaking I
- ART 250 (3) Printmaking II
- ART 350 (3) Printmaking III
- ART 450 (3) Printmaking IV
- ART 550 (3) Printmaking V

Plus 3 hours in art/design history, or art criticism.

Plus a studio concentration of 9 hours (if drawing or design is elected, these must be beyond basic requirements).

Plus one course each in two studio areas other than the concentration for a total of 6 credit hours.

Total: 51 semester hours

(continued)
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 (21 hours):
ART 185 (3) Introduction to Western Art, Part I
ART 285 (3) Introduction to Western Art, Part II

Plus five courses (15 hours) chosen from:

Total: 21 semester hours

Department Fees

The department provides various supplies and equipment but students are expected to purchase most of their personal art supplies. In the following courses, registration requires payment of special fees to cover the cost of materials or services supplied to students:

- All Art Education $15.00
- All Ceramics 25.00
- All Design 15.00
- All Drawing 15.00
- All Drawing (figure) 15.00
- All Fiber Design 15.00
- All Painting 15.00
- All Photography 35.00
- All Printmaking 25.00
- All Sculpture 25.00

Minors

Art Minor
B.A.; B.A.A.; B.F.A.; B.S. degrees

This minor must be arranged in consultation with a departmental advisor. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Required Courses (15 hours):
ART 105 (3) Drawing I- Introduction
ART 115 (3) Design I
ART 285 (3) Introduction to Western Art, Part II

Plus one course each in two studio areas other than design and drawing (6 hours).
Electives (6 hours)

Total: 21 semester hours

The faculty. Jesse Dominguez, Mariah Doren, Brian Elder, Lon Ferguson, Nedra Frodge, Alice Gardner, Richard Gergel, Holly Hanessian, Sharon House, Carolyn Loeb, Clark Most, Johanna Paas, Sally Rose, David Stairs, Margaret Ware, Al Wildey
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 Department 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 enterprises, and related mass media 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 department should consult the chairperson 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 departmental cocurricular activities. These include WMHW-FM, Moore Hall TV, M2D2 (Moore Media Digital Design) News Central, The Film Society, and Moore Music Records. Students are also encouraged to participate in BCA chapters of the National Broadcasting Society and the Radio and Television News Directors Association.

Admission, Retention, and 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. Students not attaining a minimum grade of B in ENG 101 must earn a minimum grade of B 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 (SDA 101, SDA 302, IPC 267, IPC 269, IPC 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 and achieve a grade of at least B in order to meet BCA competency.

Integrative Public Relations Major (Interdisciplinary)

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.
Majors

Broadcast and Cinematic Arts Major
B.A.; B.A.A.; B.S. degrees

Required Core Courses (23 hours):
BCA 210 (4) Survey of the Mass Media
BCA 222 (3) Audio Production
BCA 223 (3) Video Production
BCA 310 (3) Broadcast History and New Media Technology
BCA 311 (3) Broadcast and Cable Copywriting
BCA 499 (1) Senior Seminar
BCA 503 (3) Critiquing Mass Media
BCA 510 (3) Broadcast and Cable Law

*Electives (12 hours):
12 additional hours of BCA coursework to be selected in consultation with an advisor. *Six of these 12 hours must be at the 400 or 500 level. BCA 490 and 529 do not fulfill this 400-500 requirement.

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.

Total: 35 semester hours

Admission, Retention, and Termination Standards

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.

* A list of various career course sequences is available in the department office.

Broadcast and Cinematic Arts Major
B.F.A. degree

Admission, Retention and Termination Standards

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 department’s B.F.A. faculty advisor in order to apply for admission to this program.

Required Core Courses (26 hours):
BCA 210 (4) Survey of the Mass Media
BCA 222 (3) Audio Production
BCA 223 (3) Video Production
BCA 310 (3) Broadcast History and New Media Technology
BCA 311 (3) Broadcast and Cable Copywriting
BCA 317 (3) Radio and TV Performance
BCA 499 (1) Senior Seminar
BCA 503 (3) Critiquing Mass Media
BCA 510 (3) Broadcast and Cable Law

Integrative Experience (7 hours):
Any combination of the following:
BCA 329 (1-4) Practicum in Electronic Media
BCA 529 (2-6) Internship in Radio-TV-Film

Departmental Electives (12 hours):
Chosen from the following:
BCA 421 (3) Advanced Audio Production
BCA 422 (3) Intermediate Video Production
BCA 505 (3) Advanced Electronic Media Writing
BCA 512 (3) Broadcast and Cable Promotion
BCA 517 (3) Advanced Audio and Video Performance
BCA 519 (3) Electronic Media Programming
BCA 520 (1-3) Special Topics in Mass Media
BCA 521 (3) Electronic Cinematography
BCA 522 (3) Multimedia Audio Postproduction
BCA 525 (3) Film Genre Study
BCA 527 (3) Film Directors
BCA 532 (3) Advanced Video/Multimedia Postproduction
BCA 566 (1) Hockey's Cinematic Depictions

Fine Arts Concentration (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 Bachelor of Fine Arts advisor for details.

Total: 70 semester hours

Admission, Retention, and Termination Standards
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.

Broadcast and Cinematic Arts Major
Program for Speech Teaching Certification with broadcasting focus (B.S. in Ed. degree)
The following is offered in cooperation with the Department of Speech Communication and Dramatic Arts, and is advised by BCA faculty.

Required Core Courses (20 hours):
BCA 210 (4) Survey of the Mass Media
BCA 222 (3) Audio Production
BCA 223 (3) Video Production
BCA 311 (3) Broadcast and Cable Copywriting
BCA 499 (1) Senior Seminar
BCA 503 (3) Critiquing Mass Media
BCA 510 (3) Broadcast and Cable Law

Other Required Communication Courses (17-18 hours)
IPC 251 (3) Foundations of Communication Theory
IPC 267 (3) Introduction to Debate
TAI 182 (3) Acting I
SDA 492 (4) Speech Methods in Secondary School
SDA 493 (1) Field Experience in Speech Education
Plus one of the following:
TAI 170 (3) Fundamentals of Interpretative Reading
TAI 177 (4) Stagecraft and Lighting
IPC 353 (3) Communication in Small Groups

Departmental Electives (7 hours)
Three of these seven hours must be at the 400 or 500 level. BCA 490 and BCA 529 do not fulfill this requirement.

Total: 44-45 semester hours

Admission, Retention and Termination Standards
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 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 SDA 492 and SDA 493, prior to student teaching.
Vocational Technical Teaching Certification:
Vocational Certification in Radio and Television Production is available to BCA majors and minors wishing to teach. See the department chair for details.

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

Required Core Courses (17 hours):
- BCA 210 (4) Survey of the Mass Media
- BCA 222 (3) Audio Production
- BCA 223 (3) Video Production
- BCA 311 (3) Broadcast and Cable Copywriting
- BCA 329 (1) Practicum in Electronic Media
- BCA 503 (3) Critiquing Mass Media

Electives (5 hours): Minimum of 5 additional hours of BCA coursework to be selected in consultation with an advisor. BCA 288 and 300 do not count toward this minimum.

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.

Total: 22 semester hours

Broadcast and Cinematic Arts Minor
Available on B.S. in B.A. degree only

Required Core Courses (20 hours):
- BCA 210 (4) Survey of the Mass Media
- BCA 222 (3) Audio Production
- BCA 223 (3) Video Production
- BCA 329 (1) Practicum in Electronic Media
- BCA 510 (3) Broadcast and Cable Law
- BCA 516 (3) Broadcast and Cable Management
- OR BCA 519 (3) Electronic Media Programming
- IPC 264 (3) Organizational Communication
- OR IPC 353 (3) Communication in Small Groups

Electives (2 hours):
Minimum of two additional hours of BCA coursework to be selected in consultation with an advisor. BCA 288 and 300 do not count toward this minimum.

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.

Total: 22 semester hours

Cinema Studies Minor
B.S., B.A., B.A.A.

Required Courses (15 hours):
- BCA 288 (3) History and Appreciation of the Cinema
- BCA 503 (3) Critiquing Mass Media
- BCA 525 (3) Film Genre Study
  (Variable content: can be repeated once as an elective for this minor program if content not replicated.)
- BCA 527 (3) Film Directors
  (Variable content: can be repeated once as an elective for this minor program if content not replicated.)
- BCA 528 (3) History and Analysis of Nonfiction Film

Electives (6 hours):
- BCA 290 (3) French Film and Other Media
- BCA 300 (3) African and African American Film
- BCA 320 (1-3) Special Topics in Mass Media
  (Variable content: can be taken if film-related in consultation with program advisor.)
- ENG 326 (3) The Literary Dimensions of Film
- BCA 490 (1-3) Independent Study
  (Can be taken if film-related in consultation with program advisor and approval of instructor.)
- BCA 520 (1-3) Special Topics in Mass Media
  (Variable content: can be taken if film-related in consultation with program advisor and approval of instructor.)
- BCA 525 (3) Film Genre Study
- BCA 527 (3) Film Directors
- BCA 566 (1) Hockey's Cinematic Depictions

Total: 21 semester hours

NOTE: No coursework on this minor can be double counted toward a BCA major or minor except BCA 503.

Why Study Journalism?

Journalism and mass communications transmit and interpret culture and bind society together, making them among the most vital forces in the maintenance of any society and fundamental to democratic government and a free society. The mission of journalism and mass communications is mainly to communicate information and ideas that enable people to fulfill their responsibilities as citizens in a diverse, democratic nation and a free society. Because freedom of expression and freedom of the press are indispensable to a free society, professional programs like ours encourage dissent, inquiry and free expression as guaranteed by the First Amendment.

Careers in the exciting and expanding field of mass communications begin with journalism studies. CMU journalism graduates find jobs in news reporting, magazine and feature writing, photojournalism, public relations, and advertising. Journalism education also benefits students going into law, politics, consulting, health education, business, and environmental and sports studies and many other fields that require information gathering, precision writing and visual communication skills.

Journalism at CMU

CMU’s journalism program is accredited by the Accrediting Council for Education in Journalism and Mass Communications, a distinction held by only one other Michigan university. Our program balances classroom theory with service learning and other structured hands-on experiences that help students develop the skills required for entry-level positions in the media.

Students may select one of four major concentrations: news editorial, photojournalism, advertising or public relations. However, all students enroll in a common set of courses that emphasize information gathering, processing and writing, visual communication skills and the philosophical framework of the profession, including the role of mass communications in contemporary society, the role of media in racial diversity and the legal context in which the industry operates.

In addition to the journalism major, the department offers an interdepartmental Integrative Public Relations major with the departments of Broadcast and Cinematic Arts and Speech Communications 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, Central Review, the Society of Professional Journalists, the Public Relations Student Society of America, the Central Press Photographers Association, and the American Advertising Federation.

Employers expect journalism graduates to have had at least one internship. It verifies 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 products.

Admission, Retention, and 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.

Integrative Public Relations Major (Interdisciplinary)

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 be junior/senior status.
Journalism Major

B.A.; B.S. degrees

A journalism major requires 39 hours of journalism coursework. The last 18 hours of journalism coursework 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.

In order to graduate as a major in the Department of Journalism, a student must complete at least 80 semester hours of coursework 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.

Requirements

Core Courses (24 hours):
- JRN 101 (3) Mass Communications in Contemporary Society
- JRN 202 (3) Writing for the Mass Media
- JRN 203 (3) Information Gathering for the Mass Media
- JRN 220 (3) Basic Media Photography
- JRN 302 (3) Introduction to Graphics and Visual Communication
- JRN 380 (3) Racial Diversity: Mass Media's Role
- JRN 404 (3) Law of Mass Communication
- JRN 500 (3) Current Issues in Mass Communication

A planned program (15 hours) in a specified concentration of journalism, approved by the major advisor.

Total: 39 semester hours

Concentrations

Advertising (15 hours):
Required (12 hours):
- JRN 350 (3) Public Relations Principles and Practices
- JRN 360 (3) Advertising Principles
- JRN 365 (3) Advertising Media
- JRN 465 (3) Advertising Copy and Design

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

News Editorial (15 hours):
Required (12 hours):
- JRN 312 (3) Reporting
- JRN 315 (3) Editing
- JRN 430 (3) Magazine and Feature Writing
- JRN 516 (3) Public Affairs Reporting

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

Photojournalism (15 hours):
Required (12 hours):
- JRN 320 (3) Photo Editing
- JRN 420 (3) Photography Studio Techniques
- JRN 422 (3) The Photographic Process
- JRN 520 (3) Independent Study in Photography

OR JRN 521 (3) Seminar in News Photography

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

Public Relations (15 hours):
Required (12 hours):
- JRN 350 (3) Public Relations Principles and Practices
- JRN 450 (3) Public Relations Writing
- JRN 551 (3) Case Studies in Public Relations
- JRN 556 (3) Public Relations Seminar

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

Total: 39 semester hours

Integrative Public Relations Major

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

Minors

Journalism Minor

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

A journalism minor requires at least 21 hours of journalism coursework. A grade of C or better is required in each course counted toward the minor.

Requirements:

Core Courses (15 hours):
- JRN 101 (3) Mass Communications in Contemporary Society
- JRN 202 (3) Writing for the Mass Media
- JRN 302 (3) Introduction to Graphics and Visual Communication
- JRN 312 (3) Reporting
- JRN 315 (3) Editing

Additional Journalism Courses (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.

General Guidelines

Courses are numbered by related areas within the field of journalism. The second and third digits indicate the area relationship. These are: General Courses—(00); News Editorial—(10); Photojournalism—(20); Magazines—(30); Teaching—(40); Public Relations—(50); Advertising—(60); Open—(70); Advanced Graduate Courses—(80); and Special Studies—(90).

The faculty. Tim Boudreau, Carole Eberly, John K. Hartman, Edward Hutchison, Dennis W. Jeffers, David London, Maria Marron, Ronald Marmarelli, Kent Miller, John A. Palen, Elliott S. Parker, Mark T. Ranzenberger, Alice A. Tait, David Weinstock, James Wojcik, Jaifei Yin
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.

Admission, Retention, and 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 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 majors 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, 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 a minor in music. Neither the majors nor the minors are available except on this degree and in the combinations below.

A minimum 2.7 GPA (B-) must be earned in all teaching majors and minors.
**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.

**Instrumental Option**

**Major: Music Education**

**Music Theory, History, and Literature (29 hours):**
- MUS 097 (0) Recital Attendance (7 semesters)
- MUS 101 (3) Theory I
- MUS 102 (3) Theory II
- MUS 103 (1) Sight Singing and Ear Training I
- MUS 104 (1) Sight Singing and Ear Training II
- MUS 109 (1) Introduction to Music Technology
- MUS 201 (3) Theory III
- MUS 202 (3) Theory IV
- MUS 203 (1) Sight Singing and Ear Training III
- MUS 204 (1) Sight Singing and Ear Training IV
- MUS 211 (3) Historical Survey of Music I
- MUS 212 (3) Historical Survey of Music II
- MUS 304 (3) Instrumentation and Scoring
- MUS 311 (3) Historical Survey of Music III

**Music Education (4 hours):**
- MUS 230 (2) Introduction to Music Education
- MUS 333 (2) Music Education in Elementary Grades I

**Applied Study (7 hours):**
- 2 semesters of MUS 150, 151, or 152 (2) *
- 2 semesters of MUS 250, 151 or 152 (2) *
- 3 semesters of MUS 350, 351, or 352 (3) *
- Solo performance (0)
  * All applied study used to fulfill these requirements must be on the same instrument.

**Total semester hours: 40**

**Minor: Instrumental**

**Music Education (16 hours):**
- MUS 141 (1) Vocal Techniques I
- MUS 144 (2) Woodwind Techniques
- MUS 146 (2) Brass Techniques
- MUS 244 (1) Double Reed Techniques
- MUS 246 (2) String Techniques
- MUS 280 (2) Introduction to Conducting
- MUS 331 (2) Instrumental Organization
- MUS 344 (2) Percussion Techniques
- MUS 382 (2) Instrumental Conducting and Materials

**Performance (8-12 hours):**
- Ensemble (8)
  - 6-7 semesters of MUS 185 or MUS 186 (6-7)
  - 1-2 semesters of MUS 281, MUS 285, or MUS 286 (1-2)

**Secondary Applied Study (4):**
- If Applied study requirement on major is satisfied with MUS 153-179 and MUS 353-379, then MUS 147, 148, 247 and 248 (4) or passing piano proficiency (0).
- If Applied Study requirement is satisfied with MUS 151 or 152, then MUS 153-179 (4)*.
  * All applied study used to fulfill these requirements must be on the same instrument.

**Music Electives (2-6 hours):**
- Courses selected must be 300 level or above.

**Total semester hours: 30**

**Choral Option**

**Major: Music Education**

**Music Theory, History, and Literature (29 hours):**
- MUS 097 (0) Recital Attendance (7 semesters)
- MUS 101 (3) Theory I
- MUS 102 (3) Theory II
- MUS 103 (1) Sight Singing and Ear Training I
- MUS 104 (1) Sight Singing and Ear Training II
- MUS 109 (1) Introduction to Music Technology
- MUS 201 (3) Theory III
- MUS 202 (3) Theory IV
- MUS 203 (1) Sight Singing and Ear Training III
- MUS 204 (1) Sight Singing and Ear Training IV
- MUS 211 (3) Historical Survey of Music I
- MUS 212 (3) Historical Survey of Music II
- MUS 304 (3) Instrumentation and Scoring
- MUS 311 (3) Historical Survey of Music III

**Music Education (4 hours):**
- MUS 230 (2) Introduction to Music Education
- MUS 333 (2) Music Education in Elementary Grades I

**Applied Study (7 hours):**
- 2 semesters of MUS 150, 151, or 152 (2) *
- 2 semesters of MUS 250, 151 or 152 (2) *
- 3 semesters of MUS 350, 351, or 352 (3) *
- Solo performance (0)
  * All applied study used to fulfill these requirements must be on the same instrument.

**Total semester hours: 40**

**Minor: Choral**

**Music Education (18 hours):**
- MUS 144 (2) Woodwind Techniques
  OR MUS 146 (2) Brass Techniques
- MUS 241 (2) Diction for Singers
- MUS 246 (2) String Techniques
- MUS 280 (2) Introduction to Conducting
- MUS 317 (2) Song Repertoire for Young Voices
  OR MUS 318 (2) Song Repertoire
- MUS 338 (2) Voice Pedagogy
- MUS 381 (2) Choral Conducting and Materials
- MUS 435 (2) Music Education in Junior High/Middle School
- MUS 511 (2) Choral Literature I
  OR MUS 512 (2) Choral Literature II

**Performance (7-11 hours):**
- Ensemble (7)
  - 4-7 semesters of MUS 182 or MUS 183 (4-7)
  - 0-3 semesters of MUS 282 or MUS 284 (0-3)

**Secondary Applied Study (0-4):**
- If Applied study requirement on major is satisfied with MUS 150, 250, and 350, then MUS 147, 148, 247 and 248 (4) or passing piano proficiency (0).
- If Applied Study requirement is satisfied with MUS 151 or 152, then MUS 150 (4).

**Music Electives (1-5 hours):**
- (selected in consultation with an advisor)

**Total semester hours: 30**
Bachelor of Music Degree

This degree is awarded upon completion of a professional, non-certifying program for students aspiring to careers in musical performance, theory/composition, or college teaching.

Common Core - Required for all Bachelor of Music majors (32 hours):
- MUS 097 (0) Recital Attendance (7 semesters)
- MUS 101 (3) Theory I
- MUS 102 (3) Theory II
- MUS 103 (1) Sight Singing and Ear Training I
- MUS 104 (1) Sight Singing and Ear Training II
- MUS 201 (3) Theory III
- MUS 202 (3) Theory IV
- MUS 203 (1) Sight Singing and Ear Training III
- MUS 204 (1) Sight Singing and Ear Training IV
- MUS 211 (3) Historical Survey of Music I
- MUS 212 (3) Historical Survey of Music II
- MUS 302 (2) Contrapuntal Techniques
- MUS 304 (3) Instrumentation and Scoring
- MUS 311 (3) Historical Survey of Music III
- MUS 503 (2) Advanced Counterpoint

Major: Theory/Composition

Common Core (32 hours):
See above.

Major Area Theory Courses (24 hours):
- MUS 109 (1) Introduction to Music Technology
- MUS 158 (2) Composition
- MUS 209 (2) Music Synthesis I
- MUS 309 (2) Music Synthesis II
- MUS 358 (8) Composition
- MUS 504 (2) Contemporary Compositional Techniques
- MUS 505 (2) Seminar in Analysis: Twentieth-Century Music
- MUS 506 (2) Advanced Scoring
Recital (0)

Supportive Courses in Music (20 hours):
- MUS 280 (2) Introduction to Conducting
- MUS 147, 148, 247, 248, 249 AND/OR MUS 152 (6)*
* specific courses determined by placement exam.
- Instrumental or Vocal Applied Study (4)
- 8 semesters of ensemble (8)

Supportive Courses outside Music (6 hours):
ART 318 (3) OR PHL 480 (3)
PHY 100 (3), PHS 101 (3) OR PHS 371 (3)

Music Electives (7 hours):
(selected in consultation with an advisor)

Total semester hours: 89

Major: Orchestral Instruments

Common Core (32 hours):
See above.

Major Area Performance Courses (36 hours):
- 4 semesters of MUS 153 - 179* (8)
- 4 semesters of MUS 353 - 379* (16)
- Junior Recital (0), Senior Recital (0)
*All applied study used to fulfill these requirements must be on the same instrument.
- 8 semesters of MUS 185 or MUS 186 (8)
- 4 semesters of MUS 281 or MUS 285 (4)

Supportive Courses in Music (13 hours):
- MUS 147, 148, 247, 248, 249, and/or MUS 152 (4)*
* specific courses determined by placement exam.
- MUS 280 (2) Introduction to Conducting
- MUS 314 (3) History of Symphonic Literature
- MUS 335 (2) Instrumental Pedagogy
- MUS 505 (2) Seminar in Analysis: 20th Century Music

Music Electives (8 hours):
(selected in consultation with an advisor)

Total semester hours: 89

Major: Organ

Common Core (32 hours):
See above.

Major Area Performance Courses (34 hours):
- MUS 189 (1) Introduction to Accompanying
- 4 semesters of MUS 151 (8)
- 2 semesters of MUS 150, MUS 152 or MUS 360 (2)
- 4 semesters of MUS 351 (16)
- Junior Recital (0), Senior Recital (0)
- 7 semesters of MUS 180, MUS 181, MUS 182, MUS 183, MUS 185, MUS 186, MUS 281 OR MUS 282 (7)

Supportive Courses in Music (14 hours):
- MUS 109 (1) Introduction to Music Technology
- MUS 249 (1) Functional Piano
- MUS 280 (2) Introduction to Conducting
- MUS 316 (2) History and Literature of the Organ
- MUS 236 (2) Piano Pedagogy I
- MUS 389 (2) Service Playing
- MUS 413 (2) History and Literature of Church Music
- MUS 540 (2) Organ Pedagogy Practicum

Supportive Courses outside Music (8 hours)
FRN 101 (4) and FRN 102 (4)
OR GER 101 (4) and GER 102 (4)

Music Electives (1 hour):
(selected in consultation with an advisor)

Total semester hours: 89

Major: Piano

Common Core (32 hours):
See above.

Major Area Performance Courses (34 hours):
- MUS 189 (1) Introduction to Accompanying
- 4 semesters of MUS 152 (8)
- 2 semesters of MUS 150 Voice, MUS 151 Organ OR MUS 360
- Harpsichord (2)
- 4 semesters of MUS 352 (16)
- Junior Recital (0), Senior Recital (0)
- 7 semesters of MUS 180, MUS 181, MUS 182, MUS 183, MUS 185, MUS 186, MUS 281 OR MUS 282 (7)

Supportive Courses in Music (13-14 hours):
- MUS 109 (1) Introduction to Music Technology
- MUS 249 (1) Functional Piano
- MUS 236 (2) Piano Pedagogy I
- MUS 237 (2) Piano Pedagogy II
- MUS 280 (2) Introduction to Conducting
- MUS 339 (1) Piano Pedagogy Practicum
- OR MUS 241 (2) Diction for Singers
- MUS 514 (2) History of Keyboard Literature I
- MUS 516 (2) History of Keyboard Literature II

Supportive Courses outside Music (8 hours)
FRN 101 (4) and FRN 102 (4)
OR GER 101 (4) and GER 102 (4)

Music Electives (1-2 hours):
(selected in consultation with an advisor)

Total semester hours: 89
Major: Voice

Common Core (32 hours):
See above.

Major Area Performance Courses (28 hours):
2 semesters of MUS 150 (4)
2 semesters of MUS 250 (4)
2 semesters of MUS 350 (4)
2 semesters of MUS 450 (8)
Junior Recital (0)
Senior Recital (0)
8 semesters of MUS 181, 182, 183, 282 and/or 284 (8)

Supportive Courses in Music (12 hours):
MUS 147,148, 247, 248, 249; and/or MUS 152 (4) *
* specific courses determined by a placement exam
MUS 241 (2) Diction for Singers
MUS 280 (2) Introduction to Conducting
MUS 318 (2) Song Repertoire
MUS 338 (2) Voice Pedagogy

Supportive Courses outside Music (16 hours)
FRN 101 (4) and FRN 102 (4), GER 101 (4) and GER 102 (4)

Music Electives (1 hour):
(selected in consultation with an advisor)

Total semester hours: 89

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.

Major: Music

Music Theory, History, and Literature (23 hours):
MUS 097 (0) Recital Attendance (4 semesters)
MUS 101 (3) Theory I
MUS 102 (3) Theory II
MUS 103 (1) Sight Singing and Ear Training I
MUS 104 (1) Sight Singing and Ear Training II
MUS 201 (3) Theory III
MUS 202 (3) Theory IV
MUS 203 (1) Sight Singing and Ear Training III
MUS 204 (1) Sight Singing and Ear Training IV
MUS 211 (3) Historical Survey of Music I
MUS 212 (3) Historical Survey of Music II
MUS 311 (3) Historical Survey of Music III

Performance (10 hours)
Applied Study (4 hours)
4 semesters of study on same instrument at 100, 200, 300 and/or 400 level (4)
300 level proficiency (0)
Solo Performance (0)
Ensemble (6 hours):
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)

Music Electives (7 hours):
Courses selected must be at 300 level or above.

Total semester hours: 40

Minor: Music

Music Theory, History, and Literature (11 hours):
MUS 101 (3) Theory I
MUS 102 (3) Theory II
MUS 103 (1) Sight Singing and Ear Training I
MUS 104 (1) Sight Singing and Ear Training II
MUS 110 (3) Music in Society
OR MUS 114 (3) Listening Experience

Performance (4 hours):
2 semesters of Applied Study (2)
2 semesters of Ensemble (2)

Music Electives (5 hours):
(selected in consultation with an advisor)

Total semester hours: 20

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.

Why Study Speech 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 speech 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.

Speech Communication and Dramatic Arts at CMU

The Department of Speech Communication and Dramatic Arts at CMU is a hybrid department comprised of two areas: (1) the Interpersonal and Public Communication Area (IPC) and (2) the Theatre, Interpretation, and Dance Area (TID). While each area has its own unique programs and courses of study that are cited below, together the areas comprise a department that can address the complex nature of oral communication and performance in its various forms.

The professional and academic goals for the Interpersonal and Public Communication Area are the following: (1) to generate an appreciation for and an ability to utilize communication theory appropriate to the students’ vocational aspirations and societal needs; (2) to encourage the development of communication skills that helps students build and maintain a sense of self-worth, understanding, and self-confidence; (3) to explore the integration of communication theory and skills with other social-science disciplines; (4) to sensitize students to the variety of perspectives and perceptions of people from different backgrounds and cultures and show the role of communication in creating understanding; (5) to assist students in developing communication competencies that enhance self-directed learning and problem-solving ability; (6) to provide service for the public good; (7) to provide students with an opportunity to demonstrate communication skills in applied communication settings; (8) to provide quality education to update and refine the students’ knowledge in accordance with their developing needs; and (9) to contribute to the general advancement of knowledge by stimulating and supporting research efforts. For more information about Interpersonal and Public Communication programs, call the IPC Area Coordinator, Dr. Peter Ross, 989-774-3992.

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-artist research. For more information about Theatre, Interpretation, and Dance programs, call the TID Area Coordinator, Steve Berglund, 989-774-3961.

The Department of Speech Communication and Dramatic Arts offers specialized majors and minors in Interpersonal and Public Communication and Theatre, Interpretation, and Dance. For those interested in teacher preparation, a Speech major and minor are offered at the secondary level. The major includes three possible concentrations: IPC, TAI, and Generalist. The department also participates in the interdisciplinary Language Arts program, which offers a major and a minor at the elementary teaching level, the interdisciplinary Integrative Public Relations program and the interdisciplinary Music Theatre program.

Admission, Retention, and Termination Standards

Speech Major

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. Student must have completed at least 30 hours of the major program including SDA 492 and SDA 493, prior to student teaching. The major requires four hours of English as specified by the North Central Association.

Interpersonal and Public Communication Major

Any student in good academic standing at CMU may sign a major in Interpersonal and Public Communication. Every student intending to major in Interpersonal and Public 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 IPC 251 and IPC 301.

Theatre and Interpretation Major

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.

Integrative Public Relations Major (Interdisciplinary)

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 be junior/senior status.
Speech Education Major and Minors

Speech Major
B.S. in Ed. degree, Provisional Secondary Certification

Speech Major with Speech Teaching Certification (41 hours)

1. Core Requirements (33 hours):
   - IPC 251 (3) Foundations of Communication Theory
   - IPC 267 (3) Introduction to Debate
   - IPC 357 (3) Public Speaking
   - IPC 361 (3) Dynamics of Interpersonal Communication
   - IPC 569 (3) Communication in the Classroom
   - TAI 170 (3) Fundamentals of Interpretive Reading
   - TAI 177 (4) Stagecraft and Stage Lighting
   - TAI 182 (3) Acting I
   - TAI 481 (3) Directing*
   - SDA 492 (4) Speech Methods in Secondary School
   - SDA 493 (1) Field Experience in Speech Education

2. Concentrations (8 hours):
   In addition to the core requirements listed above, choose one of the following concentrations in consultation with an advisor:
   a. IPC Concentration
      - IPC 353 (3) Communication in Small Groups
      - Choose 5 hours from the following:
        - IPC 269 (2) Practicum in Debate/Forensics*
        - IPC 367 (3) Nonverbal Communication
        - IPC 464 (1-3) Communication Internship*
        - IPC 495 (3) Communication Facilitation*
        - IPC 562 (3) Family Communication*
   b. TAI Concentration
      Choose one of the following:
      - TAI 175 (3) Appreciation of the Theatre
      - TAI 574 (3) History of Drama and Theatre I
      - TAI 575 (3) History of Drama and Theatre II
      - Choose one of the following:
        - TAI 371 (3) Readers Theatre*
        - TAI 376 (3) Interpretation of Drama*
        - TAI 570 (3) Oral Interpretation of Prose Fiction*
        - TAI 571 (3) Oral Interpretation of Poetry*
      - 2 hours of TAI Studio Courses (TAI 305-320*; no more than one hour may be taken in any single TAI Studio Course).
   c. Generalist
      - 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

Speech Minor with Speech Teaching Certification
IPC 251 (3) Foundations of Communication Theory
IPC 267 (3) Introduction to Debate
IPC 357 (3) Public Speaking
TAI 177 (4) Stagecraft and Stage Lighting
TAI 182 (3) Acting I
TAI 481 (3) Directing*
SDA 492 (4) Speech Methods in Secondary School

Total: 23 semester hours

* Courses with an asterisk have prerequisites or other requirements. Check the Course Descriptions section of the Bulletin for details.

Interpersonal and Public Communication Majors and Minors

IPC Major
B.A.; B.A.A.; B.S. degrees

Organizational Communication Concentration (39 hours)
Required core courses (30 hours):
   - IPC 251 (3) Foundations of Communication Theory
   - IPC 264 (3) Organizational Communication
   - IPC 301 (3) Survey of Research in Speech Communication
   - IPC 353 (3) Communication in Small Groups
   - IPC 357 (3) Public Speaking
   - IPC 361 (3) Dynamics of Interpersonal Communication
   - IPC 364 (3) Communication in the Professional Environment
   - IPC 401 (3) Capstone in Communication
   - IPC 461 (3) Communication in Leadership
   - IPC 560 (3) Communication and Change: The Diffusion of Ideas and Information

OR IPC 565 (3) Communication Training in Organizations
Plus 9 hours in IPC selected in consultation with the major advisor.
(No more than 6 hours from IPC 464, IPC 490 and IPC 495 may count toward the major in IPC.)

Interpersonal Communication Concentration (39 hours)
Required core courses (30 hours):
   - IPC 251 (3) Foundations of Communication Theory
   - IPC 301 (3) Survey of Research in Speech Communication
   - IPC 353 (3) Communication in Small Groups
   - IPC 357 (3) Public Speaking
   - IPC 361 (3) Dynamics of Interpersonal Communication
   - IPC 363 (3) Principles and Types of Interviewing
   - IPC 367 (3) Nonverbal Communication
   - IPC 401 (3) Capstone in Communication
   - IPC 468 (3) Theories of Interpersonal Communication
   - IPC 562 (3) Family Communication

Plus 9 hours in IPC selected in consultation with the major advisor, at least 3 of these at the 500 level. (No more than 6 hours from IPC 464, IPC 490 and IPC 495 may count toward the major in IPC.)

Total: 39 semester hours

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

Required core courses (15 hours):
   - IPC 251 (3) Foundations of Communication Theory
   - IPC 301 (3) Survey of Research in Speech Communication
   - IPC 353 (3) Communication in Small Groups
   - IPC 357 (3) Public Speaking
   - IPC 361 (3) Dynamics of Interpersonal Communication

Plus 9 additional hours in IPC selected in consultation with an IPC advisor, at least six of which must be at the 400 or 500 level. (No more than 6 hours from IPC 464, IPC 490 and IPC 495 can be counted toward the minor.)

Total: 24 semester hours
Theatre and Interpretation
Majors and Minors

TAI Major
B.A.; B.S. degrees

CORE:
- TAI 170 (3) Fundamentals of Interpretive Reading
- TAI 177 (4) Stagecraft and Stage Lighting
- TAI 182 (3) Acting I
- TAI 278 (3) Stage Makeup
- TAI 481 (3) Directing
- TAI 499 (3) Senior Capstone
- TAI 574 (3) History of Drama and Theatre I
- TAI 575 (3) History of Drama and Theatre II
- TAI 580 (3) Dramatic Theory and Criticism
3 Studio courses in 3 different areas.

CONCENTRATIONS: 12 hours within the department selected in consultation with an advisor in one of the following:
- Acting
- Interpretation
- Design technology
- Generalist

Total: 43 semester hours

TAI Minor
B.A.; B.S.; B.A.A. degrees

Core:
- TAI 170 (3) Fundamentals of Interpretive Reading
- TAI 177 (4) Stagecraft and Stage Lighting
- TAI 182 (3) Acting I
- TAI 278 (3) Stage Makeup
- TAI 481 (3) Directing
- TAI 574 (3) History of Drama and Theatre I
- TAI 575 (3) History of Drama and Theatre II
- TAI 580 (3) Dramatic Theory and Criticism

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.

Curriculum requirements include 45 hours in TAI courses; and 25 hours of elective cognate fine arts courses. The student is also required to demonstrate proficiency in the field of specialization prior to graduation.

Integrative Public Relations Major
This is an interdisciplinary major. Please check the index for the page number.

Music Theatre Major
B.F.A. Degree
This is an interdisciplinary major. Please check the index for the page number.

Dance Minor
B.A.; B.S.; B.S. in Ed., Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

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.

A. Required Courses (12 hours):

- PED 138 (2) Dance Aerobics
- DAN 133 (2) Dance Technique I
  OR DAN 233 (2) Dance Technique II
- DAN 230 (3) Movement-Rhythmic Form and Structure
- DAN 232 (2) Dance Composition I
- DAN 530 (3) History of Dance

B. Students on a teaching degree must complete the following additional requirements:

- DAN 231 (2) Fundamental Movement
- DAN 334 (3) Teaching of Folk, Square, and Social Dance
- DAN 435 (2) Methods of Creative Movement

Electives (5) in DAN

C. Students on non-teaching degrees must complete the following additional requirements:

- DAN 134 (1) Recreational Dance I
- DAN 136 (2) Ballet I
  OR DAN 236 (2) Ballet II
- DAN 137 (2) Tap I
  OR DAN 237 (2) Tap II
- DAN 138 (2) Jazz I
- DAN 430 (3) Dance Production

Electives (2)

Total: 24 semester hours

The faculty.
Introduction

The primary mission of the College of Education and Human Services (EHS) is to provide the highest quality undergraduate and graduate educational experiences that develop effective professionals, critical thinkers, and lifelong learners. Students will expand their understanding of themselves and their roles in a diverse and global society. Through a broad range of technological and human services, the College and its graduates, in collaboration with the constituencies they serve, will be proactive forces for improving the quality of life in the twenty-first century.

We believe that involvement in the field, prior to graduation, is a critical component of all of our programs. While many remain in their original professions—teaching, leisure services, or an area of family development—other graduates eventually go to graduate school for advanced study into areas such as counseling, special education, or educational administration. Whether you are just exploring these fields or want to sign a major, know that the faculty and staff are deeply committed to caring for and serving you.

Teaching-Related Programs

The process of becoming a certified teacher in Michigan starts when you enter CMU and declare your intent to focus on that area. Advising is a critical component for all education students; some courses may be counted in different types of ways to meet various curricular requirements. Meeting with your advisor and mentor regularly is important.

The Department of Teacher Education and Professional Development prepares students for certification in elementary and secondary education through its professional education courses. Other departmental majors and minors are located within 25 academic departments across the university.

CMU is accredited by the National Council for Accreditation of Teacher Education. We are one of just over 500 institutions in the United States that are accredited. CMU is expected to meet high standards for all of our professional education programs.

Human Service-Related Programs

An array of Human Service programs is offered through EHS. If you see yourself interacting with people in a professional capacity, or think you would like a career in a business or a human service agency setting working with clients face-to-face to help them in meeting their needs, you should explore human service-related programs in EHS.

All professional degree programs include carefully designed, direct experiences in real-life settings. These required experiences, which differ from program to program, have one common element - close contact with people with whom you will work as a professional.

Much of the hands-on experience in EHS takes place in the many clinics and centers which provide service to the university and the community at large. These clinics include: the Human Growth and Development Laboratory, the Human Development Clinic and the Reading Clinic.

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.

Graduate Programs

Graduate programs are offered in all five departments within EHS, as well as an Interdisciplinary Masters of Arts in Education. The Department of Counseling and Special Education offers masters’ level programs in Professional Counseling, School Counseling and Special Education. The Educational Administration & Community Leadership Department provides graduate students the opportunities to pursue advanced degrees in Community Leadership, General Education Administration and School Principalship. This department also offers a specialist degree and a terminal degree in Educational Leadership. Human Environmental Studies offers graduate programs in both Human Development and Family Studies and Nutrition and Dietetics. Recreation, Parks & Leisure Services Administration has the state’s first professionally accredited major in the field of recreation, parks and leisure services administration. Teacher Education and Professional Development offers graduate degrees in the following areas: Educational Technology; Elementary Education; Library, Media and Technology; Middle Level Education; Reading and Literacy; and Secondary Education.

“The College of Education and Human Services will be at the forefront in the preparation of professionals for the twenty-first century.”
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.

Courses are offered by the counseling program to assist students in personal growth and development, and to prepare graduates for careers as counselors.

The department also offers programs leading to a Master of Arts degree which prepare graduates for positions requiring counseling skills or advanced specialization and/or additional teaching endorsements in the areas of emotional impairment, learning disabilities, autism, and cognitive impairment at the K-12 level.

See the Graduate Bulletin for a complete description of graduate programs.

Admissions, Retention, and Termination Standards

Teacher Certification

All programs are subject to changes in state certification rules and students should contact an advisor before pre-registration each semester.

A student who plans to major in special education should contact the EHS Center for Student Services, 204 Ronan Hall, as soon as possible to initiate the Admission to Teacher Education process. Students must fulfill all requirements listed for Admission to Teacher Education programs as specified in the Teacher Certification section of this Bulletin.

All students preparing to become approved to teach in special education must also meet requirements for certification in general elementary or secondary education. The endorsements in cognitive impairment and emotional impairment, both K-12, require either an elementary or secondary education general education certificate. Students completing a special education endorsement will be eligible to teach special education students in grades kindergarten through twelve (or age 26).

Before a major is signed the student must have earned a grade of C or higher in SPE 126 (3) Introduction to Special Education.

Effective Fall semester, 1990, students will be required to complete two student teaching assignments, one in Special Education during one semester and one in General Education during another semester. Application for student teaching must be made through the office of the Department of Teacher Education and Professional Development by the established deadline in advance of each placement, with approval recommended by Special Education prior to placement.

Fall student teaching applications are due the preceding spring semester, and spring student teaching applications are due the preceding fall semester, by the established deadline.

A minimum 2.7 GPA (B-) must be earned in all teaching majors.

For Special Education Major, Teachers of Students with Cognitive Impairment, the following courses require a C+ or better: SPE 322, 323, 324, 419, 521, and 522.

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.

Special Education Major
Teachers of Students with Cognitive Impairment

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

Core Courses (24 hours):

SPE 126 (3) Introduction to Special Education
*SPE 322 (6) Curriculum and Instruction for Students with Special Needs
*SPE 323 (3) Classroom Management for Students with Special Needs
*SPE 324 (6) Special Education Classroom-Based Assessment
SPE 470 (3) Career Development and Transition
SPE 550 (3) Teaching Culturally Diverse Students

Professional Sequence (15 hours):

* SPE 419 (3) Teaching the Student with Mild Cognitive Impairment
* SPE 521 (3) Teaching the Student with Moderate to Severe Cognitive Impairment
* SPE 522 (3) Field Experience-Cognitive Impairment

Special Education electives (6) selected in consultation with an advisor.

* These are courses which require a C+ or better.

Total: 39 semester hours
Counseling/Special Education - Educational Administration/Community Leadership 175

Special Education Major
Teachers of Students with Emotional Impairment
B.S. in Ed., Provisional Elementary or Secondary Certification with Emotional or Cognitive Impairment Endorsement

Core Courses (24 hours):
- SPE 126 (3) Introduction to Special Education
- *SPE 322 (6) Curriculum and Instruction for Students with Special Needs
- *SPE 323 (3) Classroom Management for Students with Special Needs
- *SPE 324 (6) Special Education Classroom-Based Assessment
- SPE 470 (3) Career Development and Transition
- SPE 550 (3) Teaching Culturally Diverse Students

Professional Sequence (15 hours):
- *SPE 578 (3) Students with Emotional Impairment
- *SPE 579 (3) Teaching Students with Emotional Impairment
- *SPE 581 (3) Field Experience-Emotional Impairment

Special Education electives (6) selected in consultation with an advisor.
* These are courses which require a C+ or better.

Total: 39 semester hours

The faculty. Wendy Folger, Richard Fox, Laura Frey, Sherrel Lee Haight, N. Joan Hornak, Sherene McHenry, Twinet Parmer, D. Terry Rawls, Suzanne Shellady

Educational Administration and Community Leadership (EAD)
For information, please contact Stephen B. Lawton, Chairperson, 774-2489, 320 Ronan Hall

Why Study Educational Administration or Community Leadership?
Leadership skills are vital to all academic and community institutions. Because the Department of Educational Administration and Community 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 Administration and Community 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 administrators of educational or community-based human service agencies. 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 administrators to achieve the level of scholar-practitioner and to provide strong community and organizational leadership.

See the Graduate Bulletin for a complete description of graduate programs.

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 Arts in Human Development and Family Studies, and a Master of Science in Nutrition and Dietetics. 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.

Admission, Retention, and Termination Standards

### Apparel Merchandising and Design
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 each of the core courses in order to graduate with this major.

### Child Development – General Program
1. Student must have completed or currently be enrolled in HEV 100 and must have a minimum GPA of 2.0 in order to sign a major.
2. Student must have a minimum program GPA of 2.5 in order to graduate with this major.
3. Student must receive a grade of C+ or better in HEV 419 in order to graduate with this major.

### Child Development – Early Childhood Concentration
1. Student must have completed or currently be enrolled in HEV 100 and must have a minimum GPA of 2.0 in order to sign a major.
2. Student must have a minimum program GPA of 2.5 in order to graduate with this major.
3. Student must receive a grade of C+ or better in HEV 409 in order to graduate with this major.

### Child Development Major - B.S. in Education
1. A minimum 2.7 GPA (B-) must be earned in all teaching majors.
2. A minimum 2.5 GPA and completion of (or enrollment in) one of the following courses (HEV 100, EDU 280, or PSY 220) are required for authorization of this major.
3. HEV 402 is a departmental methods course and must be completed with a grade of C+ or better before student teaching.

### Child Development Minor - B.S. in Education
1. A minimum 2.7 GPA (B-) must be earned in all teaching minors.
2. A minimum 2.5 GPA and completion of (or enrollment in) one of the following courses (HEV 100, EDU 280, or PSY 220) are required for authorization in this minor.
3. HEV 402 is a departmental methods course and must be completed with a grade of C+ or better before student teaching.

### Family Studies
1. Student must have a minimum GPA of 2.0 to sign a major.
2. Student must have a minimum program GPA of 2.5 in order to graduate with this major.
3. Student must receive a grade of C+ or better in HEV 419 in order to graduate with this major.

### Family Life and Human Sexuality Minor
1. Student must have a minimum GPA of 2.0 to sign a minor.
2. Student must have a minimum program GPA of 2.5 in order to graduate with this minor.

### Human Development Minor
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.

### Interior Design
1. Student must achieve a 2.0 GPA or better in all required courses to graduate with this major.
Majors

Apparel Merchandising and Design Major
B.A.; B.A.A.; B.S. degrees

The purpose of the major is to study aesthetic and functional design, marketing, and retailing of apparel and textiles. The major is planned to prepare students for a variety of professional careers in the apparel and textile industry. Career possibilities are available in the design, production, and distribution of apparel and textile products. The major includes an apparel merchandising and design core of 31 hours, plus additional required courses and an elective in each of the concentrations of apparel design or apparel merchandising.

A. Apparel Merchandising and Design Core (33 hours):
   - HEV 141 (3) Apparel Design: Analysis
   - HEV 155 (3) Introduction to Textiles
   - HEV 246 (3) Computer-Aided Design for Apparel
   - HEV 252 (3) Dress and Culture
   - HEV 256 (3) Fashion Merchandising
   - HEV 330 (2) Professional Seminar in Apparel Merchandising and Design
   - HEV 335 (4) Internship in Apparel Merchandising and Design*
   - HEV 346 (3) Advanced CAD for Apparel
   - HEV 355 (3) Textile Analysis
   - HEV 450 (3) Textiles and Apparel in a Global Economy
   - HEV 457 (3) Portfolio Techniques

B. Concentration (13-18 hours)
   In addition to the required courses in the cores, students are required to choose one of the following concentrations: Apparel Merchandising or Apparel Design.
   
   Apparel Merchandising Concentration (13 hours):
   - BIS 106 (1) Spreadsheet Concepts
   - HEV 140 (3) Introduction to Apparel Construction
   - OR HEV 250 (3) Apparel Evaluation
   - HEV 356 (3) Visual Merchandising
   - HEV 456 (3) Fashion Buying
   - Select one of the following:
     - BLR 202 (3) Legal Environment of Business
     - BLR 325 (3) Women and the Law
     - MGT 320 (3) Human Resource Management
     - MGT 357 (3) Women in Management
     - MGT 365 (3) International Business

   Apparel Design Concentration (18 hours):
   - HEV 140 (3) Introduction to Apparel Construction
   - HEV 240 (3) Advanced Apparel Construction
   - HEV 241 (3) Apparel Design: Illustration
   - HEV 345 (3) Apparel Design Methods
   - HEV 447 (3) Functional Apparel Design
   - Select one of the following:
     - ART 115 (3) Design I
     - ART 135 (3) Introduction to Graphic Design
     - ART 231 (3) Color and Composition
   * Student needs to complete an application procedure prior to registering for this course. The application involves a written discourse addressing career goals and an interview with faculty. The application procedure will be detailed in the HEV 330 course that is a prerequisite to this course.

C. 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.

Total 46-51 semester hours

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 pre-primary education and service settings working with children and families. It may also be used as preparatory training for graduate studies in child developmental and professional programs in health- and counseling-related fields.

The Early Childhood Concentration is a structured plan of study designed to meet the training guidelines of the National Association for the Education of Young Children (NAEYC). This concentration is especially appropriate for students who plan on working in early childhood settings such as child care 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 index for the page number.

All students must take Section I. Core Requirements followed by either:
   - Section II. General Program of Study
   - Section III. Early Childhood Concentration

Child Development Major

I. Core Requirements (18 hours):
   Development and Professional Foundations (12 hours)
   - HEV 100 (3) Human Growth and Development: Lifespan
   - HEV 219 (3) HDFS Field Work
   - HEV 307 (3) Human Growth and Development: Parent-Child Relations
   - HEV 308 (3) Human Growth and Development: Theory

   Family, Diversity, and Developmental Context (6 hours)
   One of the following:
   - HEV 211 (3) Marriage and Family Perspectives
   - HEV 291 (3) Human Environmental Studies: Family Ecology

   One of the following:
   - HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
   - HEV 212 (3) The Family in Cultural Perspective
   - SPE 126 (3) Introduction to Special Education
   - SPE 550 (3) Teaching Culturally Diverse Students

   EITHER:

II. General Program of Study (18 hours)
   In addition to the required core, students choosing the general program of study are also required to complete:
   Developmental Emphasis (6-7 hours)
   Two of the following developmental courses:
   - HEV 302 (3) Human Growth and Development: Infancy
   - HEV 303 (4) Human Growth and Development: Early Childhood
   - HEV 306 (3) Human Growth and Development: Adolescence
   - HEV 510 (3) Human Growth and Development: Seminar

   Professional Methods (6-9 hours)
   One of the following methods courses:
   - HEV 319 (3) HDFS Skills and Methods
   - HEV 414 (3) HDFS Research Methods
   - HEV 506 (3) Human Growth and Development: Practicum in Parent Involvement
   - One of the following:
     - HEV 419 (1-12) HDFS Internship
   - HEV 490 (3-6) Independent Study
Electives (2-6 hours 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 (3) Normal Speech and Language Acquisition
- OR CDO 230 (3) Introduction to Speech, Language, and Hearing Disorders
- ENG 381 (3) Children’s Literature
- HEV 111 (3) Family as an Economic Unit
- HEV 213 (3) Introduction to Human Sexuality
- HEV 315 (3) Family Management Theory
- HEV 411 (3) Family Relations
- IET 232 (2) Technology for Children
- PSY 322 (3) Psychology of Infancy and Early Childhood
- OR PSY 324 (3) Childhood and Adolescence
- SOC 222 (3) Juvenile Delinquency
- OR SOC 412 (3) Sociology of Adolescence
- RPL 206 (3) Recreation Activities Leadership
- TAI 373 (3) Oral Interpretation for Children
- OR TAI 585 (3) Creative Dramatics

*Students must complete one of the required Professional Methods courses prior to enrollment in HEV 419 or 490.

Total: 36 semester hours

OR

Ill. Early Childhood Concentration (22 hours)

In addition to the required core, students choosing the Early Childhood Concentration must also complete:

Developmental Emphasis (7 hours)
- HEV 302 (3) Human Growth and Development: Infancy
- HEV 303 (4) Human Growth and Development: Early Childhood

Professional Methods (15 hours)
- HEV 402 (4) Human Growth and Development: Guidance for Young Children
- HEV 403 (3) Human Growth and Development: Early Childhood Experience
- HEV 409 (8) Human Growth and Development: Lead Teaching Experience

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 coursework 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 coursework 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 advising 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 Option 2, Group 1 (Integrated Science (CST), Mathematics-MTH, Physical Science-PHS). The second minor may be selected from Option 2, Group 2 or 3.

One of the following (3 hours):
- HEV 100 (3) Human Growth and Development: Lifespan
- EDU 280 (3) Education of Children
- PSY 220 (3) Developmental Psychology

All of the following (20 hours):
- HEV 302 (3) Human Growth and Development: Infancy
- HEV 303 (4) Human Growth and Development: Early Childhood
- HEV 307 (3) Human Growth and Development: Parent-Child Relations
- HEV 402 (4) Human Growth and Development: Guidance for Young Children
- EDU 525 (3) Early Childhood Education
- EDU 290 (3) Technology in Education

Diversity: Special Needs:

One of the following (3 hours):
- SPE 126 (3) Introduction to Special Education
- CDO 230 (3) Introduction to Speech, Language, and Hearing Disorders
- CDO 438 (3) Language Disorders in Special Populations

Diversity: Cultural

One of the following (3 hours):
- HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
- ANT 200 (3) Education and Culture
- HST 221 (3) Growing Up in America
- SPE 550 (3) Teaching Culturally Diverse Children

Family Relations

One of the following (3 hours):
- HEV 211 (3) Marriage and Family Perspectives
- HEV 212 (3) The Family in Cultural Perspective
- SOC 411 (3) The Family

Electives:

Two of the following (5-6 hours):
- ASL 101 (3) American Sign Language, Level I
- ASL 102 (3) American Sign Language, Level II
- ENG 381 (3) Children’s Literature
- HSC 205 (2) Responding to Emergencies
- IET 232 (2) Technology for Children
- MUS 134 (3) Music in Early Childhood**
- MUS 534 (2) Music for Preschool Children
- RPL 206 (3) Recreation Activities Leadership
- TAI 373 (3) Oral Interpretation for Children
- TAI 585 (3) Creative Dramatics

**MUS 134 may be substituted for MUS 132 on the BS in Education Degree.

Total: 37-38 semester hours
Dietetics Major
B.A.; B.S. degrees

Completion of this program satisfies the academic requirements of the American Dietetic Association. This enables a student to apply for a Dietetic Internship following graduation. Completion of these requirements and passing of the Registration Examination for Dietitians meet the requirements for Registered Dietitian (R.D.) credential.

Dietetics Core (45 hours):
- HEV 160 (4) Introduction to Foods
- HEV 361 (3) Experimental Foods
- HEV 363 (1) Food Safety and Sanitation
- HEV 365 (2) Quantity Food Production
- HEV 366 (2) Quantity Food Production Laboratory
- HEV 370 (3) Nutrition
- HEV 371 (3) Food and Culture in the United States
- HEV 463 (3) Menu Planning: Design and Service
- HEV 471 (3) Medical Nutrition Therapy I
- HEV 472 (3) Medical Nutrition Therapy II
- HEV 473 (4) Advanced Nutrition
- HEV 474 (3) Nutrition in the Life Cycle
- HEV 567 (4) Foodservice Systems Administration
- HEV 570 (4) Nutrition Education
- HEV 573 (3) Field Work; Community Nutrition

Additional Requirements:* (19-22 hours):
- CHM 120 (4) Survey of Chemistry
- CHM 127 (1) Introduction to Chemistry Lab
- OR BOTH CHM 131 (4) Introduction to Chemistry I
- AND CHM 132 (4) Introduction to Chemistry II
- CHM 342 (4) Survey of Organic Chemistry**
- CHM 421 (3) Survey of Biochemistry***
- BIO 208 (3) Microbiology
- BIO 392 (4) Mammalian Physiology

A minor is not required. If a minor is desired, consult advisor.

* Some of the courses listed under Additional Requirements may also satisfy University Program requirements and count toward the minors.

** A student opting to take CHM 345 and CHM 346 instead of CHM 342 should have the equivalent of CHM 132 as a prerequisite.

*** A student with CHM 345 and CHM 346 may elect CHM 521 and CHM 522, instead of CHM 421.

Total: 64-67 semester hours

Foodservice Administration Major
B.A.; B.A.A.; B.S. degrees

Students completing a major in Foodservice Administration are prepared for professional careers as Foodservice Director, Manager or Supervisor in food service settings such as hospitals, extended care facilities, school systems, industrial food services, hotel or restaurant food services and food service companies that sell food or equipment.

Foodservice Administration Core (30 hours):
- HEV 160 (4) Introduction to Foods
- HEV 263 (3) Beverages in Foodservice
- HEV 363 (1) Food Safety and Sanitation
- HEV 365 (2) Quantity Food Production
- HEV 366 (2) Quantity Food Production Laboratory
- HEV 370 (3) Nutrition
- HEV 371 (3) Food and Culture in the United States
- HEV 463 (3) Menu Planning: Design and Service
- HEV 465 (3) Foodservice Facilities Design
- HEV 467 (3) Quantity Food Purchasing
- HEV 468 (3) Foodservice Internship

Other Required Courses (9 Hours):
- ECO 202 (3) Principles of Microeconomics
- ACC 201 (3) Concepts of Financial Accounting
- MGT/HSO 210 (3) Effective Supervision: Principles and Practices

Suggested minors include: Hospitality Services Administration (24 hours), Business Administration (24 hours), Management (21 hours), Entrepreneurship (21-22 hours), Nutrition (22-24 hours).

Total: 39 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.

I. Core Requirements (25 semester hours)
- LIB 197 (1) Introduction to the Library
- HEV 100 (3) Human Growth and Development: Lifespan
- HEV 211 (3) Marriage and Family Perspectives
- HEV 213 (3) Introduction to Human Sexuality
- HEV 291 (3) Human Environmental Studies: Family Ecology
- HEV 307 (3) Human Growth and Development: Parent-Child Relations
- HEV 315 (3) Family Management Theory
- OR HEV 111 (3) Family as an Economic Unit
- HEV 411 (3) Family Relations
- HEV 418 (3) Family Development in Late Life

II. Other Requirements (15 semester hours)

In addition to the required core, students are also required to complete:

Professional Foundations (3 semester hours)
- HEV 219 (3) HDFS Field Work

Professional Methods (6 semester hours)
- STA 282 (3) Introduction to Statistics
- OR PSY 211 (3) Introduction to Psychological Statistics
- HEV 319 (3) HDFS Skills and Methods
- HEV 414 (3) Human Development and Family Studies Research Methods
- HEV 419 (3) HDFS Internship*

*Students must complete HEV 319 prior to enrollment in HEV 419.

Electives (6 semester hours)

Select courses from the above list not used to fulfill requirements or any from the following list, in consultation with an advisor.

- HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
- HEV 212 (3) The Family in Cultural Perspective
- HEV 302 (3) Human Growth and Development: Infancy
- HEV 306 (3) Human Growth and Development: Adolescence
- HEV 511 (3) Seminar in Human Sexuality
- HEV 513 (3) Readings in the Family
- HEV 514 (3) Family Insights Through Literature, Drama & Film
- HEV 515 (3) Current Issues in Marriage and the Family
- HEV 517 (3) Readings in Marital Counseling and Divorce
- GRN 247 (3) Introduction to Gerontology
- SWK 100 (3) Introduction to Social Work
- SWK 300 (3) Crisis Intervention Experience
- SWK 510 (3) Sex Therapy and Counseling
- IPC 562 (3) Family Communication
- HSC 519 (3) Death Education & Suicide Prevention
- OR REL 334 (3) Death and Dying: Religious Dimensions
- HSC 525 (1) Sexually Transmitted Disease Workshop

(continued)
Family Studies Major: Life Management Education

B.S. in Ed. degrees, Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

This program is designed to prepare teacher certification candidates with the competencies to achieve an endorsement (KH) in Family and Consumer Sciences. This will enable students to teach Family and Consumer Sciences. This will enable students to teach Life Management Education (LME) in grades K through 12. LME is a mandated part of the Michigan Model Core Curriculum. For more information, see http://www.courses.cmich.edu/fcs-lme/default.htm and the Michigan Department of Education’s website at www.michigan.gov/mde.

A vocational endorsement (VH) is also available on the secondary certification. If students want to earn a VH endorsement in this area, they need to complete 200 hours of documented, recent, and relevant work experience. A VH endorsement may enable a school to be eligible for government vocational funds. For more information, go to this website: http://www.courses.cmich.edu/fcs-lme/default.htm.

I. Core Requirements (25 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LIB 197 (1)</td>
<td>Introduction to the Library</td>
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<tr>
<td>HEV 100 (3)</td>
<td>Human Growth and Development: Lifespan</td>
</tr>
<tr>
<td>HEV 211 (3)</td>
<td>Marriage and Family Perspectives</td>
</tr>
<tr>
<td>HEV 213 (3)</td>
<td>Introduction to Human Sexuality</td>
</tr>
<tr>
<td>HEV 291 (3)</td>
<td>Human Environmental Studies: Family Ecology</td>
</tr>
<tr>
<td>HEV 307 (3)</td>
<td>Human Growth and Development: Parent-Child Relations</td>
</tr>
<tr>
<td>HEV 315 (3)</td>
<td>Family Management Theory</td>
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<tr>
<td>OR HEV 111 (3)</td>
<td>Family as an Economic Unit</td>
</tr>
<tr>
<td>HEV 411 (3)</td>
<td>Family Relations</td>
</tr>
<tr>
<td>HEV 418 (3)</td>
<td>Family Development in Late Life</td>
</tr>
</tbody>
</table>

II. Life Management Education Concentration

In addition to the core requirements those students seeking a teaching endorsement (for grades K-12) in Family and Consumer Science (Life Management Education) are required to complete:

Teacher Preparation Requirements (12 semester hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEV 214 (3)</td>
<td>Consumer Economics</td>
</tr>
<tr>
<td>HEV 370 (3)</td>
<td>Nutrition</td>
</tr>
<tr>
<td>HEV 481 (3)</td>
<td>FCS/LME Teaching Methods</td>
</tr>
<tr>
<td>HSC 106 (3)</td>
<td>Healthy Lifestyles</td>
</tr>
</tbody>
</table>

Electives (3 semester hours)

Select from the following:

HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
HEV 212 (3) The Family in Cultural Perspective
HEV 302 (3) Human Growth and Development: Infancy
HEV 306 (3) Human Growth and Development: Adolescence
HEV 511 (3) Seminar in Human Sexuality
HSC 519 (3) Death Education & Suicide Prevention
HSC 525 (1) Sexually Transmitted Disease Workshop
HSC 527 (1) Sex Education Workshop
HSC 528 (1) Smoking and Health Education Workshop
HSC 529 (1) Alcohol Education Workshop
HSC 530 (1) Drug and Alcohol Workshop
REL 334 (3) Death and Dying

Total: 40 semester hours

Minors

Apparel Merchandising and Design Minor

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

Required Courses (9 hours)

HEV 140 (3) Introduction to Apparel Construction
OR HEV 250 (3) Apparel Evaluation
HEV 141 (3) Apparel Design: Analysis
HEV 155 (3) Introduction to Textiles

Electives: 15 hours of elective courses to be selected in consultation with a departmental advisor, 12 of which must be from the area of apparel merchandising and design.

Total: 24 semester hours
Child Development Minor
B.S. in Ed. degree, Provisional Elementary Certification, or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

The Child Development Minor is designed to provide students with an interdisciplinary approach to the study of children. The growth and development of children within the preschool and elementary years is examined within the context of working with children in educational settings. Students who complete this minor may take the Michigan Early Childhood Examination. Successful completion of this examination results in the addition of the 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.

A. Core Courses
One of the following (3 hours):
- HEV 100 (3) Human Growth and Development: Lifespan
- EDU 280 (3) Education of Children
- PSY 220 (3) Developmental Psychology

All of the following (17 hours):
- HEV 302 (3) Human Growth and Development: Infancy
- HEV 303 (4) Human Growth and Development: Early Childhood
- HEV 307 (3) Human Growth and Development: Parent-Child Relations
- HEV 402 (4) Human Growth & Development: Guidance for Young Children
- EDU 525 (3) Early Childhood Education

B. Other Required Course
One of the following courses focused on diversity (3 hours):
- ANT 200 (3) Education and Culture
- CDO 230 (3) Introduction to Speech, Language, and Hearing Disorders
- CDO 438 (3) Language Disorders in Special Education Populations
- HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
- HEV 126 (3) Introduction to Special Education
- HEV 525 (3) Teaching Culturally Diverse Children

C. Electives
One of the following (2-3 hours):
- ASL 101 (3) American Sign Language, Level I
- ASL 102 (3) American Sign Language, Level II
- ENG 381 (3) Children's Literature
- HEV 211 (3) Marriage and Family Perspectives
- HEV 212 (3) The Family in Cultural Perspective
- HSC 205 (2) Responding to Emergencies
- IET 232 (2) Technology for Children
- MUS 134 (3) Music in Early Childhood**
- MUS 534 (2) Music for Pre-school Children
- RPL 206 (3) Recreation Activities Leadership
- SOC 411 (3) The Family
- TAI 373 (3) Oral Interpretation for Children
- TAI 585 (3) Creative Dramatics

**MUS 134 may be substituted for MUS 132 on the B.S. in Education degree.

Total: 25-26 semester hours

Family Life and Human Sexuality Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.

This minor is designed to complement a large number of majors, particularly those that prepare students to work in health and human service settings. Advisors for this minor are located in the Department of Human Environmental Studies.

Required Courses (18 hours):
- HEV 100 (3) Human Growth and Development: Lifespan
- OR PSY 220 (3) Developmental Psychology
- OR EDU 280 (3) Education of Children
- HEV 211 (3) Marriage and Family Perspectives
- HEV/SOC 213 (3) Introduction to Human Sexuality
- OR HSC 222 (3) Sexuality in Health Education
- HEV 307 (3) Human Growth and Development: Parent-Child Relations
- HEV 315 (3) Family Management Theory
- HEV 411 (3) Family Relations

Electives (6 hours)
To be selected with the approval of an advisor.
- HEV 111 (3) Family as an Economic Unit
- HEV 212 (3) The Family in Cultural Perspective
- HEV 306 (3) Human Growth and Development: Adolescence
- HEV 381 (3) Education for Family Life and Human Sexuality
- HEV 413 (1-3) Facilitating Discussion in Human Sexuality Groups
- HEV 511 (3) Seminar in Human Sexuality
- HEV 513 (3) Readings in the Family
- HEV 514 (3) Family Insights Through Literature, Drama, and Film
- IPC 562 (3) Family Communications
- PES 143 (2) Sexual Assault and Harassment/Awareness and Avoidance
- SOC 535 (3) Sexual Orientation
- SWK 510 (3) Social Work Generalist Practice and Human Sexuality
- HSC 523-530 (1-3) Workshops
- PSY 350 (3) Clinical Interviewing and Counseling

Total: 24 semester hours

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

This is an interdisciplinary minor. Please check the index for the page number.

Foodservice Administration Minor

A. Required Courses (21 hours)
- HEV 160 (4) Introduction to Foods
- HEV 263 (3) Beverages in Foodservice
- HEV 363 (1) Food Safety and Sanitation
- HEV 365 (2) Quantity Food Production
- HEV 366 (2) Quantity Food Production Laboratory
- HEV 370 (3) Nutrition
- HEV 463 (3) Menu Planning: Design and Service
- HEV 467 (3) Quantity Food Purchasing

B. Electives (3 hours)
- HEV 371 (3) Food and Culture in the United States
- HEV 465 (3) Foodservice Facilities Design
- HEV 468 (3) Foodservice Internship

Total: 24 semester hours
Human Development Minor
B.A.; B.A.A.; B.S. degrees

The minor is designed to complement a wide variety of majors selected by students interested in working with individuals in family and human service settings. Due to the variability in students’ goals for completing the minor, all students are encouraged to see an advisor prior to beginning the coursework. The minor is authorized by a designated advisor in the Department of Human Environmental Studies. Enroll in HEV 100 and a minimum GPA of 2.0 are required for authorization of the minor.

A. Required Courses (15-16 hours)

Growth and Development (9-10 hours)
- HEV 100 (3) Human Growth and Development: Lifespan
- HEV 308 (3) Human Growth and Development: Theory
- HEV 302 (3) Human Growth and Development: Infancy
- HEV 303 (4) Human Growth and Development: Early Childhood
- HEV 306 (3) Human Growth and Development: Adolescence
- HEV 418 (3) Family Development in Late Life
- HEV 516 (3) Family Development: Early Adult/Middle Age

Family and Diversity within a Developmental Context (6 hours)
- At least one of the following family courses:
  - HEV 211 (3) Marriage and Family Perspectives
  - HEV 291 (3) Human Environmental Studies: Family Ecology
  - HEV 307 (3) Human Growth and Development: Parent-Child Relations
- and at least one of the following diversity courses:
  - HEV 110 (3) Oppression: Roots and Impact on Human Development in the US
  - HEV 212 (3) The Family in Cultural Perspective
  - HEV 318 (3) Indigenous Families and Survival: A Global Perspective
  - SPE 126 (3) Introduction to Special Education
  - OR SPE 550 (3) Teaching Culturally Diverse Students

B. Electives (9 hours)

Any course not used from above list to fulfill requirements may be used for elective credit. Additionally approved electives include:
- CDO 130 (3) Normal Speech and Language Acquisition
  - OR CDO 230 (3) Introduction to Speech, Language and Hearing Disorders
- ENG 381 (3) Children’s Literature
- GRN 247 (3) Introduction to Gerontology
  - OR PSY 325 (3) Psychology of Aging
  - OR SOC 320 (3) Sociology of Aging and Retirement
- HEV 213 (3) Introduction to Human Sexuality
- HEV 315 (3) Family Management Theory
- HEV 370 (3) Nutrition
- HEV 490 (1-6) Independent Study
- HEV 497 (1-15) Special Topics
- HEV 506 (3) Human Growth and Development: Practicum in Parent Involvement
- HEV 510 (3) Human Growth & Development: Seminar
- HSC 205 (2) Responding to Emergencies
- HSC 519 (3) Death Education and Suicide Prevention
- HST 221 (3) Growing up in America
- IET 232 (2) Technology for Children
- PSY 322 (3) Psychology of Infancy and Early Childhood
  - OR PSY 324 (3) Childhood and Adolescence
- REL 334 (3) Death and Dying
- SOC 222 (3) Juvenile Delinquency
  - OR SOC 412 (3) Sociology of Adolescence
- RPL 206 (3) Recreation Activities Leadership
- TAI 373 (3) Oral Interpretation for Children
  - OR TAI 585 (3) Creative Dramatics

Total: 24 - 25 Semester Hours

Nutrition Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

A. Required Courses: (11 hours)
- HEV 370 (3) Nutrition
- HEV 375 (3) Nutrition and Performance
- HEV 470 (3) Applied Nutrition
- HEV 477 (2) Assessing Nutritional Status

B. Electives (11 -13 hours from the following in consultation with advisor):
- HEV 160 (4) Introduction to Foods
- HEV 371 (3) Food and Culture in the United States
- HEV 474 (3) Nutrition in the Life Cycle
- HEV 475 (3) Nutritional and Herbal Supplements
- HSC 503 (3) Health Implications of Obesity
- HEV 570 (4) Nutrition Education
- HEV 575 (3) Geriatric Nutrition

Total: 22-24 semester hours


Education and Human Services
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, 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.

Majors

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.

A. Required Courses (24 hours):
RPL 118 (2) Introduction to Recreation
RPL 261 (3) Introduction to Private and Commercial Recreation
RPL 307 (3) Management Skills in Leisure Services
RPL 310 (1) Pre-internship in Leisure Services
(must be taken two semesters prior to internship)
RPL 430 (3) Recreation Programming
RPL 508 (3) Budgeting for Leisure Service Agencies
RPL 511 (3) Liability and Risk Management in Leisure Services
RPL 518 (3) Philosophy of Recreation and Leisure
(must be taken one semester prior to internship)
RPL 545 (3) Promoting Leisure Services Agencies and Programs

B. Electives (6 hours): Chosen from RPL courses in consultation with advisor.

Total: 30 semester hours

Community Leisure Services Administration Concentration

B.A.; B.S. degrees

A minor chosen in consultation with an advisor is required on this concentration.

A. Required Courses (33 hours):
RPL 118 (2) Introduction to Recreation
RPL 204 (3) Community Recreation
RPL 206 (3) Recreation Activities Leadership
RPL 405 (3) Administration of Recreation and Parks
RPL 430 (3) Recreation Programming
RPL 508 (3) Budgeting for Leisure Service Agencies
RPL 511 (3) Liability and Risk Management in Leisure Services
RPL 518 (3) Philosophy of Recreation and Leisure
RPL 545 (3) Promoting Leisure Services Agencies and Programs

One course from the following two:
RPL 420 (3) Comprehensive Planning and Facility Design for Leisure
RPL 470 (3) Park Management

(continued)
Four credit hours of field coursework from one or more of the following:
- RPL 315 (1-5) Field Course in Municipal Recreation
- RPL 318 (1-5) Field Course in Recreation Specialization
- RPL 319 (1-5) Field Course in Park Operations

B. Electives (7 hours): Chosen from RPL courses in consultation with advisor.
Total: 40 semester hours

Community Leisure Services Administration Concentration

B.A.A. degree

An internship and a minor chosen in consultation with an advisor are required on this concentration.

A. Required Courses (30 hours):
- RPL 118 (2) Introduction to Recreation
- RPL 204 (3) Community Recreation
- RPL 206 (3) Recreation Activities Leadership
- RPL 310 (1) Pre-internship in Leisure Services
  (must be taken two semesters prior to internship)
- RPL 405 (3) Administration of Recreation and Parks
- RPL 430 (3) Recreation Programming
- RPL 508 (3) Budgeting for Leisure Service Agencies
- RPL 511 (3) Liability and Risk Management in Leisure Services
- RPL 518 (3) Philosophy of Recreation and Leisure
- RPL 545 (3) Promoting Leisure Service Agencies and Programs

One course from the following two:
- RPL 420 (3) Comprehensive Planning and Facility Design for Leisure
- RPL 470 (3) Park Management

B. Electives (3 hours): Chosen from RPL courses, in consultation with advisor.
Total: 33 semester hours

Outdoor and Environmental Recreation Concentration

B.A.A. degree

An internship and a minor chosen in consultation with an advisor are required on this concentration. A minor or equivalent in Natural Resources, Earth Science, or Geology is preferred; other minors may be considered only through consultation and approval from a departmental advisor.

A. Required Courses (29-30 hours):
- RPL 118 (2) Introduction to Recreation
- RPL 119 (1) Introduction to Leisure Services
- RPL 216 (3) Introduction to Outdoor Recreation
- RPL 219 (3) Teaching Campcraft Skills
- RPL 359 (3) Advanced Expedition Planning
- RPL 508 (3) Budgeting for Leisure Service Agencies
- RPL 518 (3) Philosophy of Recreation and Leisure
- HSC 205 (2) Responding to Emergencies

One course from the following two:
- RPL 218 (3) Teaching Outdoor Skills
- RPL 358 (3) Foundations of Outdoor and Environmental Education

One course from the following two:
- RPL 307 (3) Management Skills
- RPL 470 (3) Park Management

Five credit hours from one or more of the following courses:
- RPL 317 (1-5) Field Course in Camping
- RPL 318 (1-5) Field Course in Recreation Specialization
- RPL 319 (1-5) Field Course in Park Operations

B. Electives: (10-11 hours):
  Chosen from RPL or related courses in consultation with advisor.
Total: 40 semester hours

Therapeutic Recreation Concentration

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

The goal of the Therapeutic Recreation concentration is to prepare students to serve as competent practitioners in the role of Certified Therapeutic Recreation Specialists. This concentration is nationally accredited by the National Recreation and Park Association and the American Association for Leisure and Recreation (N.R.P.A./A.A.L.R.). 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.

A. Required Courses (36 hours):
- RPL 118 (2) Introduction to Recreation
- RPL 206 (3) Recreation Activities Leadership
- RPL 210 (3) Recreation for Special Populations
- HEV 100 (3) Human Growth and Development: Lifespan
  OR
- PSY 220 (3) Developmental Psychology
- PSY 250 (3) Abnormal Psychology
- RPL 518 (3) Philosophy of Recreation and Leisure
- RPL 580 (3) Programming for Therapeutic Recreation
- RPL 581 (3) Therapeutic Recreation: Issues and Trends
- HSC 211 (3) Human Anatomy and Physiology
- RPL 310 (1) Pre-internship in Leisure Services
- RPL 341 (3) Therapeutic Recreation: Physical Impairments
- RPL 342 (3) Therapeutic Recreation: Emotional Impairments
- RPL 345 (3) Therapeutic Recreation: Gerontology
**B. Electives (3 hours):**
- RPL 340 (3) Therapeutic Recreation: Developmental Disabilities
- OR RPL 344 (3) Therapeutic Recreation: Alcohol and Drug Dependency
- OR Electives (3) RPL coursework in consultation with advisor.

**Total: 39 semester hours**

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**Minors**
A minimum 2.7 GPA (B-) must be earned in all teaching minors.

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**Recreation Minor**
B.A.; B.A.A.; B.S. degrees

**A. Required Courses (11 hours):**
- RPL 118 (2) Introduction to Recreation
- RPL 206 (3) Recreation Activities Leadership

**One of the following courses:**
- RPL 204 (3) Community Recreation
- RPL 210 (3) Recreation for Special Populations
- RPL 216 (3) Introduction to Outdoor Recreation
- RPL 261 (3) Introduction to Private and Commercial Recreation

**Three-credit hours of field coursework from one or more of the following:**
- RPL 314 (1-5) Field Course in Commercial Recreation
- RPL 315 (1-5) Field Course in Municipal Recreation
- RPL 316 (1-5) Field Course in Therapeutic Recreation
- RPL 317 (1-5) Field Course in Camping
- RPL 318 (1-5) Field Course in Recreation Specialization
- RPL 319 (1-5) Field Course in Park Operations

**B. Electives (10 hours):**
Chosen in consultation with advisor. The advisor must approve all electives prior to enrolling in any elective classes.

Credit/No Credit courses may be applied up to a total of 10 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 basis at the 300, 400, or 500 level.

**Total: 21 semester hours**

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**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

**A. Required Courses (15 hours):**
- RPL 216 (3) Introduction to Outdoor Recreation
- RPL 218 (3) Teaching Outdoor Skills
- RPL 318 (3) Field Course in Recreation Specialization
- RPL 358 (3) Foundations of Outdoor and Environmental Education
- RPL 552 (3) Environmental Interpretation

**B. Electives (6 hours):**
Chosen in consultation with advisor. The advisor must approve all electives prior to enrolling in any elective classes.

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: 21 semester hours**

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**The faculty.** Lori Busch, Roger Coles, Lynn Dominguez, Al Ellard, Robert Frost, Suzanne Gareiss, Patricia Janes, Tim Otteman, Todd Paxton, Mary Lou Schilling, Rob Schumacker, Dean Wallin
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 comprised 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.

Admission, Retention, and Termination Standards

Advisement

Students interested in teaching in the elementary and secondary grades may contact the College of Education and Human Service Center for Student Services (RN 203) 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. Each student who has been selected for initial entry to Teacher Education is assigned a faculty mentor who will serve as the student’s primary teacher education advisor to assist in program planning and progress. The Teacher Education Student Handbook, which answers many student questions about the program, may be obtained from the University Center Bookstore.

Application

Eligibility requirements for selection into Teacher Education are discussed in the Bulletin under Standards Leading to Teacher Certification. Students must apply and be selected for admission into the Teacher Education Program before becoming eligible to enroll in professional education courses. After being admitted into teacher education, a student has five years in which to complete requirements for graduation; otherwise he or she must reapply for the program. The application for teacher education is available in Teacher Education Student Handbook.

Teacher Certification

Students must fulfill all requirements listed for Admission to Teacher Education Programs as specified in the Standards Leading to Teacher Certification section of this Bulletin. Students interested in certification regulations should contact the College of Education and Human Services Center for Student Services immediately. As of April, 1987 “General Elementary Certification Endorsement” means an authorization to teach in grades kindergarten to and including grade five in all subjects and in major and minor areas of preparation in grades six through eight and K-8, if in a self-contained classroom. The Michigan Secondary Provisional Teacher’s Certificate qualifies the graduates to teach in their major and minor fields in grades seven through twelve.

Departmental Programs

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.

Professional education requirements for students who intend to teach in grades seven to twelve are detailed in the Bachelor of Science in Education (B.S. in Ed) degree.

Courses include:

- EDU 107 (3) Introduction to Teaching
- EDU 290 (3) Technology in Education
- EDU 310 (3) Psychological Foundations of Education
- EDU 325 (3) Middle Level and High School Teaching Methods
- EDU 450 (3) Content Area Literacy
- EDU 495 (3) Foundations of Education
- EDU 432 (3) Student Teaching Seminar
- EDU 458 (10) Student Teaching

You should seek advising help from the Center for Student Services, 204 Ronan Hall. Admission requirements are detailed in the Teacher Education Student Handbook or at http://www.ehs.cmich.edu/css/.
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.

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.

Courses include:
- EDU 107 (3) Introduction to Teaching
- EDU 280 (3) Education of Children
- EDU 320 (3) Elementary Mathematics Methods
- EDU 330 (3) Reading in the Elementary School
- EDU 343 (3) Social Studies Methods in Elementary Education
- EDU 345 (3) Science Methods in Elementary Education
- EDU 361 (2) Midtier Practicum
- EDU 431 (3) Corrective Reading in the Classroom
- EDU 493 (3) Learning and Evaluation in Elementary Education
- EDU 495 (3) Foundations of Education
- EDU 458 (10) Student Teaching
- EDU 432 (3) Student Teaching Seminar

You should seek advising help from the Center for Student Services, 204 Ronan Hall. Admission requirements are detailed in the Teacher Education Student Handbook or at http://www.ehs.cmich.edu/css/.

Student Teaching

The Department of Teacher Education and Professional Development offers the field-based professional education courses required for the State of Michigan’s Elementary and Secondary Professional Teaching Certificates.

As a student teacher, you will be placed in one of the CMU Student Teaching Centers within the state. There are also opportunities to student teach for an eight-week period in England during the fall semester or in Australia 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. Information about time and place for the meeting is posted in classroom buildings and in CMU Life. Cycle I should be completed before applying to student teach. (See the sections on Teacher Certification and Planning Your Academic Career in this bulletin.) 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 2.7 or higher, a 2.7 or higher GPA in each major and minor, departmental approval for each major and minor, and a C+ or higher in all methods or professional education classes. Note that "Incompletes " are NOT acceptable in any methods or professional education classes. Once you are approved to student teach, TEPD will register you for EDU 432 and EDU 458. Students who are pursuing special education endorsements should contact the Counseling and Special Education Department for specific information regarding special education student teaching.

Professional education courses must be completed before student teaching. These courses are:

**Elementary:** EDU 107, 280, 320, 330, 343, 345, 361, 431, 493, 495
**Secondary:** EDU 107, 290, 310, 325, 450, 495

After your application is received, you will be assigned to one of the seven student teaching centers. Then you will be interviewed by a coordinator from that center, who will secure a placement for you.

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 MTCT examination and complete extra examinations in their major and minor fields for endorsements.

Early Childhood and Elementary Education

Professional education requirements for students of early childhood and elementary education are detailed under the Bachelor of Science in Education (B.S. in Ed.) degree. You should seek advising help from the Center for Student Services, 204 Ronan Hall. Admission requirements are detailed in the Teacher Education Student Handbook or at http://www.ehs.cmich.edu/css/.

Reading in the Elementary Grades Minor

B.S. in Ed, 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 coursework 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 (3) Reading in the Elementary School
- EDU 431 (3) Corrective Reading in the Classroom
- EDU 532 (3) Reading in the Content Areas
- EDU 533 (3) Diagnosis and Treatment of Reading Difficulties
  *(Note: this course has as prerequisites EDU 330 and 431.)*
- EDU 538 (3) Coordination of the Language Arts with Reading

**Electives (9 hours):** Choose from the following in consultation with an advisor.

- **0-3 hours from language development:**
  - CDO 130 (3) Normal Speech and Language Acquisition
  - ENG 175 (3) The Nature of Language
  - ENG 375 (3) Introduction to Linguistics

- **0-3 hours from literature:**
  - ENG 481 (3) International Literature for Children and Young Adults
  - ENG/LMT 580 (3) Literature for Young Adults
  - ENG 582 (3) Cultural Pluralism in Young Adult and Children’s Literature

- **0-6 hours from meeting special needs:**
  - CDO 230 (3) Introduction to Speech, Language and Hearing Disorders
  - EDU 506 (3) Principles and Techniques for Individualizing Instruction
  - SPE 550 (3) Teaching Culturally Diverse Students
  - SPE 577 (3) Learning Disorders
  - MLE 570 (3) Action Series on Middle Level Education Issues

- **0-6 hours from the following theory and practice courses:**
  - EDU 528 (3) Emergent Literacy: Theory and Practice
  - EDU 540 (3) Whole Language: Theory and Practice
  - LMT 590 (3) Media for Children
  - TAI 373 (3) Oral Interpretation for Children

Total: 24 semester hours
Middle Level Education
(MLE)

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 certification. It consists of 24 hours of coursework in middle level education and related disciplines. Students on the Bachelor of Science in Education, provisional elementary certification, who choose this minor, must also select two curriculum area minors (see Option 6, page 95) or a curriculum area major and a minor in addition to this minor. Students on the Bachelor of Science in Education, provisional secondary certification, program must select this minor in addition to their curriculum area major and minor. Students must select two curriculum areas (subject to advisor approval) which are broad and multidisciplinary, and encompass the major areas within those fields. The contents of this program marked with an * also qualify the student for a Michigan Middle Level Endorsement.

Required Courses (18 hours)
- *MLE 381 (3) Needs and Characteristics of Young Adolescents
- *MLE 382 (3) Middle Level School Concept, Structures, and Programs
- *MLE 383 (3) Student Diversity in the Middle Level Classroom
- *MLE 384 (3) Meeting the Diverse Needs of Learners in the Middle Level Classroom
- *MLE 385 (3) Curriculum in the Middle Level School
- *SPE 126 (3) Introduction to Special Education

Elective Courses (6 hours):
Select two (2) of these courses:
- IPC 569 (3) Communication in the Classroom
- ENG/LMT 580 (3) Literature for Young Adults
- EDU 290 (3) Technology in Education
- MLE 570 (3) Issues in Middle Level Education
- EDU 595 (3) Telecommunications

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:
- PES 310 (3) Physical Education for the Classroom
- ART 345 (3) Art in the Elementary School
- MUS 131 (2) Music Fundamentals for Classroom Teachers
- MUS 132 (1 or 2) Music Methods for Classroom Teachers
- EDU 290 (3) Technology in Education
- OR IET 232 (2) World Technology for Children
- AND IET 532 (3) Careers and Technology for Children
- EDU 320 (3) Elementary Mathematics Methods
- EDU 343 (3) Social Studies Methods in Elementary Education
- EDU 345 (3) Science Methods in Elementary Education
- EDU 493 (3) Learning and Evaluation in Elementary Education

Total Hours: 24-26

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 faculty: Abalo F. Adewui, Mary W. Aylor, Norma Bailey, Lorraine Berak, Timothy A. Brannan, Peggy Burke, Charles F. Eisler, Raymond Francis, Ashim-Uneze Heanacho, Peter Higgs, Thomas P. Kromer, William Leibfritz, Xiaoping Li, Michael Magarrey, Dianne Mark, James McDonald, Sheketa McKisick, William Merrill, Colleen A. Moore, Diane Newby, Nancy PietraszKiewicz, Joseph Rivard, Leonie M. Rose, Renay Scott, Barbara Senesac, Frank A. Stancato, Marguerite Terrill, Karen Walker, Alan Weber, Cara Wicks-Ortega, Mingyuan Zhang
The Herbert H. and Grace A. Dow College of Health Professions

Marvis J. Lary, Dean
Linda Seestedt-Stanford, Assistant Dean
HP 2217
774-1851

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.


Twenty-four hours of appropriate transfer credit (the equivalent of a minor) may be granted from these community college training programs: medical lab technician, radiology technician, physical therapy assistant, respiratory therapist, occupational therapist assistant, pharmacy technician, emergency medical technician, medical records librarian, licensed practical nurse, dental hygienist, or other closely related programs (See Allied Health minor.)

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) and 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, 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;
• Cocurricular 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.
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 Communication Disorders for speech-language pathologists. 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).

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 Office of Communication Disorders (774-3471) and request advisement assistance.

Major

Communication Disorders Major

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

With the exception of CDO 494, courses taken Credit/No Credit do not count toward a major.

Required Courses (37 hours):

- CDO 230 (3) Introduction to Speech, Language, and Hearing Disorders
- CDO 330 (3) Language Development
- CDO 331 (3) Introduction to Audiology
- CDO 334 (4) Acoustic and Descriptive Phonetics
- CDO 335 (4) The Anatomy and Physiology of Speech and Hearing
- CDO 338 (3) Introduction to Phonological Disorders: Assessment and Treatment
- CDO 339 (4) Clinical and Diagnostic Procedures in Speech-Language Pathology
- CDO 440 (4) Child Language Assessment and Intervention
- CDO 494 (3) Mentored Practicum in Communication Disorders
- CDO 495 (3) Clinical Experience: Communication Disorders
- CDO 531 (3) Audiologic Rehabilitation

Total: 37 semester hours

* Students will fulfill 25 ASHA-required hours of on-campus observation of speech, language and hearing services in order to complete this course.

Admission, Retention and Termination Standards:

Additional requirements for all majors:

1. 3.00 GPA in the major.
2. Not less than a C in any single course in the major.
3. Courses must be selected in consultation with an advisor.
4. Students will not be permitted to enroll in the same CDO course more than twice.
5. Students must pass a speech-language proficiency evaluation.

Additional requirements for ASHA Certification:

1. Completion of an approved 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.

Minor

Communication Disorders Minor

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

This minor will provide the student with some 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 (3) Normal Speech and Language Acquisition
- CDO 230 (3) Introduction to Speech, Language, and Hearing Disorders
- CDO 331 (3) Introduction to Audiology
- CDO 438 (3) Language Disorders in Special Education Populations

Elective Courses (8-10 hours) chosen from the following:
- CDO 330 (3) Language Development
- CDO 334 (4) Acoustic and Descriptive Phonetics
- CDO 335 (4) The Anatomy and Physiology of Speech and Hearing
- CDO 338 (3) Introduction to Phonological Disorders: Assessment and Treatment
- CDO 440 (3) Child Language Assessment and Intervention
- CDO 490 (1-4 Spec) Independent Study

CDO 531 (3) Audiologic Rehabilitation
CDO 544 (3) Communication Disorders in the Aged
ASL 101 (3) American Sign Language, Level I
Other electives chosen with consent of advisor.

Twenty-five hours of guided observation of diagnostic and/or therapeutic activities.
Total: 20-22 semester hours

The faculty. Laurie Bahlke, Gerald T. Church, Erika Courlander, Katie Goward, Theresa Jones, Jane Lack, Mark Lehman, Susan Naeve-Velguth, Dawn Nelson, Michael A. Nerbonne, Ann Ratciff, Sandra Rayner, Michael Stewart, Janet Sturm, Bradford L. Swartz, Renny H. Tatchell, Gail Weddington, Suzanne Woods

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School of Health Sciences (HSC)
For information, please contact Thomas Masterson, Chairperson 774-6529, 2219 Health Professions Building

Why Study Health Sciences?
There is mounting evidence that our lifestyles dramatically affect our health, well-being and longevity, as well as the dollar cost of health care. The realization that prevention is paramount to healthy living and to health care cost containment has created an interest in health education and health promotion in various public and private health settings, such as clinics, fitness centers, agencies and schools. Professionals in the health sciences are trained to help individuals improve the quality of their life by practicing healthy lifestyles.

Health Sciences at CMU
Undergraduate majors and minors offered through the School of Health Sciences focus on preparing professionals to: 1) become fitness and exercise specialists in preventative and rehabilitative programs; 2) function in the public setting as health educators and health promotion specialists; 3) work as educators and programs specialists in the field of substance abuse prevention, substance abuse intervention, and treatment; 4) work in an administrative capacity in various health settings; and 5) be teachers of health education in school settings. Individuals with education in health professions may be eligible to transfer credits and satisfy the requirements for an allied health minor, which is described in the Bulletin. The school offers the following graduate degree programs: 1.) Health Promotion and Program Management; 2.) Health Service Administration concentration on a Master of Science in Administration degree, and the Doctorate of Health Administration. Further information is available in the College of Graduate Studies Bulletin.

Note: All students wishing to graduate with a major or minor in the School of Health Sciences must achieve a minimum grade of C (2.0) in each HSC designated course that counts toward a major or minor, with the exception of those courses offered for CR/NC only.

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 (48 hours):
- ACC 201 (3) Concepts of Financial Accounting
- ECO 202 (3) (preferred) Principles of Microeconomics
  OR ECO 201 (3) Principles of Macroeconomics
- HSC 317 (3) Community Health
- HSC 333 (3) Managing the Health of Populations
- HSC 407 (3) Introduction to Health Service Organizations and Systems
- HSC 414 (3) Decision Technologies in Healthcare
- HSC 520 (3) Health Services Administration
- HSC 538 (3) Development of Proposals and Reports in Health Administration
- HSC 544 (3) Biostatistics
- HSC 545 (3) Health Planning
- HSC 570 (3) Financial Aspects of Health Services Organizations
- HSC 571 (3) Legal Aspects of Health Services Organizations
- HSC 572 (3) Quality Improvement in Health Services
- HSC 595 (6) Health Administration Internship
- MKT 300 (3) Introduction to Marketing

Total: 48 semester hours
*Comment: Prerequisite: ECO 202 (Preferred) or ECO 201. ECO 201 is normally a prerequisite for MKT 300, but is waived as a prerequisite for health administration majors.
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 pre-admission coursework, B. advanced coursework, and C. electives chosen in consultation with the advisor.  
A. Required pre-admission coursework (20 hours): Students can expect a minimum of 3 semesters to complete the following coursework required to meet admission criteria:  
- BIO 101 (3) General Biology  
- CHM 120 (4) Survey of Chemistry  
- CHM 127 (1) Introductory Chemistry Laboratory  
- HSC 214 (3) Human Anatomy  
- HSC 215 (3) Human Physiology  
- HSC 308 (3) Work Physiology  
- PSY 100 (3) Introduction to Psychology  
B. Required Advanced Coursework (26 hours):  
- HSC 205 (2) Responding to Emergencies  
- HSC 220 (3) Basics in Health Fitness  
- HSC 310 (2) ECG Assessment  
- HSC 411 (3) Pathophysiology  
- HSC 503 (3) Health Implications of Obesity  
- HSC 547 (3) Health Risk Identification and Management  
- HSC 550 (3) Stress Test Administration  
- HSC 551 (3) Stress Test Interpretation  
- PES 186 (2) Physical Fitness for Life  
- PED 189 (2) Weight Training and Conditioning  
C. 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 for 12 weeks (HSC 322B, 8 hours) is strongly encouraged for eligible students to prepare for certification and to enhance marketability.  
Total: 55 semester hours  
Note: Exercise Science minor cannot be used with this major.  

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.  
A. Pre-admission Requirements (27 hours):  
- MTH 105 (3) Intermediate Algebra  
- HSC 106 (3) Healthy Lifestyles  
- HSC 211 (3) Human Anatomy and Physiology  
- HSC 418 (2) Professional Aspects of Health Education  
- BIO 101 (3) General Biology  
- BIO 208 (3) Microbiology  
- CHM 120 (4) Survey of Chemistry  
- PSY 100 (3) Introduction to Psychology  
SOC 100 (3) Introductory Sociology  
B. Required Courses (47 hours):  
- HSC 317 (3) Community Health  
- HSC 319 (3) Methods and Materials in Community Health Education  
- HSC 323 (3) Community Organization Methods  
- HSC 419 (3) Community Health Education, Assessment, Planning and Program Evaluation  
- HSC 422 (6) Internship - Community Health  
- HSC 514 (3) Biostatistics and Epidemiology  
- HSC 520 (3) Health Services Administration  
C. Electives (12 hours): Chosen with approval of advisor.  
Total: 63 semester hours  

School Health Education Major  
B.S. in Ed. degree, Provisional Elementary or Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement  
NOTE: CMU is currently NOT accepting students into this major.  

Admission, Retention, and Termination Standards:  
The major in School Health Education leads to certification to teach health education in grades K-12. The student must meet the following requirements:  
1. Prior to signing the major/minor authorization, the student must have an overall 2.5 GPA, a 2.6 GPA for a minimum of six semester credit hours in HSC classes.  
2. Must maintain a 2.7 GPA for all classes on major and minor.  
3. Must have successfully completed, or be concurrently taking, HSC 211, 222, 235, 411, 503 or HEV 370 before taking HSC 340.  
4. Have a combined GPA of 2.6 for HSC 340 and 346 before student teaching.  
5. Achieve a grade of C (2.0), or better, for each HSC class.  
Vocational education endorsements are available for individuals with allied health background who meet specific certification requirements.  

A. Required Courses (47 hours):  
- HSC 106 (3) Healthy Lifestyles  
- HSC 205 (2) Responding to Emergencies  
- HSC 211 (3) Human Anatomy and Physiology  
- HSC 222 (3) Sexuality in Health Education  
- HSC 235 (3) Psychoactive Drugs  
- HSC 313 (1) Field Experience in School Health Education  
- HSC 340 (3) Curriculum in Health Education  
- HSC 346 (3) Methods and Resources in Teaching Health Education  
- HSC 352 (3) Environmental Health  
- OR HSC 317 (3) Community Health  
- HSC 411 (3) Pathophysiology  
- HSC 418 (1) Professional Aspects of Health Education  
- HSC 526 (3) Mental Health Workshop  
- HEV 370 (3) Nutrition  
- BIO 101 (3) General Biology  
- CHM 120 (4) Survey of Chemistry  
- PSY 100 (3) Introduction to Psychology  
- SOC 100 (3) Introduction to Sociology  
B. Elective Courses (4 hours) in HSC from the following with advisor's approval:  
- HSC 503 (3) Health Implications of Obesity  
- HSC 519 (3) Death Education and Suicide Prevention  
- HSC 522 (3) Consumer Health Education  
- HSC 534 (1) Workshop: Principles of C.V. Health and Disease  
- HSC 537 (1) Stress Reduction Workshop  
- HSC 547 (3) Health Risk Identification and Management  
Total: 51 semester hours
Minors

The following minors are available through this school: 1) Allied Health, 2) Exercise Science, 3) Personal and Community Health, 4) School Health Education and 5) Substance Abuse Education.

Allied Health Minor

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

This twenty-four-hour minor is authorized for students who have completed a minimum of 24 credit hours in these fields: medical lab technician/technologist, radiological technician/technologist, physical therapy assistant/physical therapist, respiratory therapy assistant/respiratory therapist, occupational therapy assistant/occupational therapist, 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.

Exercise Science Minor

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

This minor is designed for persons who plan to work in an area related to their major field of study, with an emphasis in fitness evaluation and exercise leadership. Those who major in Health Fitness in Preventive and Rehabilitative Programs may not minor in Exercise Science.

A. Required Courses (15 hours):
   - HSC 214 (3) Human Anatomy
   - HSC 215 (3) Human Physiology
   - HSC 220 (3) Basics in Health Fitness
   - HSC 308 (3) Work Physiology

B. Elective Courses (9 hours):
   - Chosen with approval of advisor.

Total: 24 semester hours

Personal and Community Health Minor

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

A. Required (9 hours)
   - HSC 106 (3) Healthy Lifestyles
   - HSC 211 (3) Human Anatomy and Physiology
   - HSC 317 (3) Community Health

B. 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, Retention and 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 211, 222, 235, 411, 503 or HEV 370 before taking HSC 340.
4. Have a combined GPA of 2.6 for HSC 340 and 346 before student teaching.
5. Achieve a grade of C (2.0), or better, for each HSC class.

Vocational education endorsements are available for individuals with allied health background who meet specific certification requirements.

A. Required Courses (24 hours):
   - HSC 106 (3) Healthy Lifestyles
   - HSC 211 (3) Human Anatomy and Physiology
   - HSC 222 (3) Sexuality in Health Education
   - HSC 235 (3) Psychoactive Drugs
   - HSC 340 (3) Curriculum in Health Education
   - HSC 346 (3) Methods and Resources in Teaching Health Education
   - HSC 411 (3) Pathophysiology
   - HSC 526 (3) Mental Health Workshop

Total: 24 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.

A. Required Courses (17 hours):
   - HSC 235 (3) Psychoactive Drugs
   - HSC 236 (3) Substance Abuse Intervention Programming
   - HSC 317 (3) Community Health
   - HSC 526 (3) Mental Health
   - HSC 532 (1) Cultural Sensitivity in the Health Professions
   - HSC 598 (3) Nature and Dynamics of Destructive Health Habits
   - HSC 599 (1) Issues for Substance Abuse Workers

B. Elective Courses (7 hours) Chosen with approval of advisor.

Total: 24 semester hours

School of Rehabilitation and Medical Sciences (PHA) (PTH)

For information, please contact George Bottomley, Physician Assistant Program, HPB 1236, 774-1273 or Herm Triezenberg, Physical Therapy Program, HPB 1232, 774-2347.

The School of Rehabilitation and Medical Sciences 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.

The faculty. Jeffrey Bender, Elaine Betts, George Bottomley, Gail Capehart, Michael Davis, Nancy Epstein, Karen Grossnickle, Ahmad Hakemi, René Hernandez, Peter Loubert, Elizabeth Mostrom, Janice Perkins, Allan Riggs, Deborah Silkwood-Sherer, Laurie Swan, Herm Triezenberg, Diane Visich, J. Timothy Zipple
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, athletic administration 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.

Admissions, Retention, and Termination Standards

See individual majors and minors for Admission, Retention and Termination Standards.

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

A. Required Courses (47-48 hours):
- PES 103 (3) Sport Skill Development - Elementary Level
- PES 104 (3) Sport Skill Development – Secondary Level
- PES 115 (2) Fundamental Motor Skills
- PES 186 (2) Physical Fitness for Life
- PES 215 (3) K-12 Physical Education Programming
- PES 235 (2) Teaching Lifelong Activities
- OR PES 300 (3) Wilderness Experience for Leadership Development
- OR RPL 218 (3) Teaching of Outdoor Skills
- PES 244 (2) Methods of Teaching Tumbling
- PES 295 (1) Clinical Field Experience
- PES 315 (3) Methods in Teaching Physical Education
- PES 338 (2) Teaching Aerobics
- PES 386 (3) Special Physical Education
- PES 401 (3) Fundamentals of Motor Learning
- PES 406 (2) Evaluation in Physical Education and Sport
- PES 415 (3) Planning, Teaching, and Assessing: Practical Applications
- PES 495 (1) Senior Seminar in Physical Education
- DAN 334 (3) Teaching of Folk, Square, and Social Dance
- HSC 211 (3) Human Anatomy and Physiology*
- HSC 308 (3) Work Physiology

* This course may also be used to satisfy a University Program requirement.

B. Electives (5 or 6 hours): to be selected in consultation with an advisor.

C. Additional Requirements:

Admission, Termination and Retention Standards

1. 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
2. At least 15 hours of this major must be completed at CMU.
3. Up to 3 hours may be taken as credit/no credit.
4. A minimum 2.7 GPA (B-) must be earned in all teaching majors.

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.

A. Required Courses (32-40 hours):
- PES 118 (3) Sport in America
- PES 186 (2) Physical Fitness for Life
- PES 190 (3) Introduction to Sport Management
- PES 318 (3) Social, Historical, and Global Issues in Sport
- PES 320 (3) Foundations of Sport Management
- PES 393 (1-4) Field Study in Sport Management
- PES 499 (2-12) Internship in Sport Management
- PES 550 (3) Sport Fundraising
- PES 564 (3) Sport Governance: Ethics, Morals, and Values
- ACC 210 (3) Accounting Information for Entrepreneurial Decision Making
- MKT 151 (3) Marketing and Society
  - OR MKT 220 (3) Introduction to Retail Merchandising
  - OR MKT 300 (3) Introduction to Marketing
  - OR MKT 399 (3) Marketing Strategies for Small Business
- ECO 211 (3) Economics of Professional Team Sports

B. Electives (0-8 hours): Selected in consultation with a departmental advisor
- IPC 357 (3) Public Speaking
  - OR IPC 361 (3) Dynamics of Interpersonal Communication
  - OR JRN 101 (3) Mass Communications in Contemporary Society
- OR JRN 350 (3) Public Relations Principles and Practices
- PES 311 (3) Psychology of Coaching
- RPL 420 (3) Comprehensive Planning and Facility Design for Leisure
- RPL 430 (3) Recreation Programming
- BLR 202 (3) Legal Environment of Business
  - This course may also be used to satisfy a University Program requirement.

C. Additional Requirements:
1. At least 12 hours of credit must be completed at CMU.
2. Students may elect up to 10 hours of coursework on a credit/no credit basis.

Total: 40 semester hours

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 Allied Health Education Programs (CAAHEP), this program includes classroom and clinical experiences, in a variety of health care settings, designed to prepare entry-level certified athletic trainers (NATA/BOC ATC). Upon completion of the major, students are eligible to apply for the National Athletic Trainers’ Association Board of Certification, Inc. national certification examination.

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 two required phases that include: the Selection Phase and the Advanced Phase, which includes a 15-week internship/practicum during the student’s final semester. In-depth information regarding this major may be viewed by accessing the program web site at http://www.chp.cmich.edu/atep/.

Admission, Retention, and Termination Standards

Selection Phase Requirements. 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 advanced phase. Fourteen students per semester will have the opportunity for selection to the advanced 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 three semesters to complete this phase. Selection criteria include:
1. Application
2. Grade of CR in ATR 283
3. Overall GPA
4. Selection 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

Advanced Phase Requirements. Students must continue to meet program Retention Criteria and Technical Standards to maintain status in the advanced phase. Consequences for non-compliance have been determined and could include probation, suspension or dismissal from the program. Additional information regarding the Advanced 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.

A. Selection Courses (19 hours)*

Students can expect a minimum of 3 semesters to complete this 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 advanced phase of the Athletic Training/Sports Medicine program. Additional information regarding the Selection Process may be viewed by accessing the program web site at http://www.chp.cmich.edu/atep/prospect.htm.

- ATR 180 (2) Introduction to Athletic Training
- ATR 190 (2) Fundamentals of Injury Prevention
- ATR 282 (3) Anatomical Aspects of Athletic Training
- ATR 283 (1) Athletic Training Directed Observation
- HSC 106 (3) Healthy Lifestyles
- HSC 214 (3) Human Anatomy
- HSC 215 (3) Human Physiology
- PES 115 (2) Fundamental Motor Skills
  - *18 hours of actual grades
Additional Selection Criteria:

Must achieve a C or better in the following University Program courses:
- HEV 100 (3) OR PSY 100 (3)
- CHM 120 (4), 127 (1) OR CHM 131 (4)

B. Advanced Phase/Courses (45-54 hours)

The advanced phase is a five-semester process that involves four semesters of 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 (1) Athletic Training Clinical I
- ATR 311 (1) Theory and Application of Preventative Devices
- ATR 320 (1) Athletic Training Clinical II
- ATR 321 (1) Reconditioning in Athletic Training
- ATR 380 (3) Athletic Training Assessment I
- ATR 381 (3) Athletic Training Therapeutics I
- ATR 382 (3) Athletic Training Assessment II
- ATR 383 (3) Athletic Training Therapeutics II
- ATR 394 (2) Pharmacology for Health Professions
- ATR 430(1) Athletic Training Clinical III
- ATR 431 (1) Cultural Considerations in Athletic Training
- ATR 440 (1) Athletic Training Clinical IV
- ATR 441 (1) Professional Development
- ATR 480 (3) Health Care Administration in Athletic Training
- ATR 481 (3) Athletic Training Practicum

OR ATR 482 (12) Athletic Training Internship

HEV 375 (3) Nutrition and Performance
HSC 216 (3) Biomechanics and Kinesiology
HSC/PES 308 (3) Work Physiology
HSC 411 (3) Pathophysiology
HSC 505 (3) Work Injury Prevention
OR IET 526 (3) Industrial Ergonomics
PES 478 (2) Research for the Health Professions

Total: 64-73 semester hours

Minors

Secondary Physical Education Minor
B.A.; B.S.; B.S. in Ed., Provisional Secondary Certification, or Provisional Secondary Certification with Emotional or Cognitive Impairment Endorsement

A. Required Courses (23-24 hours):
- PES 104 (3) Sport Skill Development-Secondary Level
- PES 115 (2) Fundamental Motor Skills
- PES 186 (2) Physical Fitness for Life
- PES 215 (3) K-12 Physical Education Programming
- PES 338 (2) Teaching Aerobics

OR DAN 334 (3) Teaching of Folk, Square and Social Dance

- PES 315 (3) Methods in Teaching Physical Education
- PES 386 (3) Special Physical Education
- PES 406 (2) Evaluation in Physical Education and Sport
- PES 415 (3) Planning, Teaching & Assessing: Practical Applications

B. Electives (0-1) to be selected in consultation with advisor.

C. Additional Requirements:

Admission, Retention and Termination Standards

1. 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.

2. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

Total: 24 semester hours

Elementary Physical Education Minor
B.A.; B.S.; B.S. in Ed. degrees

A. Required Courses (24 hours):
- PES 103 (3) Sport Skill Development-Elementary Level
- PES 115 (2) Fundamental Motor Skills
- PES 186 (2) Physical Fitness for Life
- PES 215 (3) K-12 Physical Education Programming
- PES 244 (2) Methods of Teaching Tumbling
- PES 315 (3) Methods in Teaching Physical Education
- PES 386 (3) Special Physical Education
- PES 406 (2) Evaluation in Physical Education and Sport
- PES 415 (3) Planning, Teaching & Assessing: Practical Applications

B. Electives (1) hour to be selected in consultation with advisor.

C. Additional Requirements

Admission, Retention and Termination Standards

1. 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.

2. A minimum 2.7 GPA (B-) must be earned in all teaching minors.

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.

A. Required Courses (19-22 hours):
- PES 118 (3) Sport in America
- PES 190 (3) Introduction to Sport Management
- PES 318 (3) Social, Historical and Global Issues in Sport
- PES 320 (3) Foundations of Sport Management
- PES 393 (1-4) Field Study in Sport Management
- PES 550 (3) Sport Fundraising
- PES 564 (3) Sport Governance: Ethics, Morals, and Values

OR

- IET 526 (3) Industrial Ergonomics
- PES 478 (2) Research for the Health Professions

Total: 64-73 semester hours

Minors (continued)
**ATHLETIC COACHING MINOR**

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.

### A. Required Courses (16-18 hours):

- HSC 205 (2) Emergency Health Care
- HSC 211 (3) Human Anatomy and Physiology
- PES 186 (2) Physical Fitness for Life
- PES 279 (2) Sport First Aid

### B. Electives (0-2 hours):

Selected from above or from the following to complete a minimum of 12 hours for the endorsement:

- PES 167 (1), PES 170 (1), PES 172 (1), PES 174 (1), PES 178 (1), PES 224 (3), PES 245 (3), PES 279 (2), PES 304 (2), PES 401 (3), PED 189 (2).

**Total: 12 semester hours**

### The faculty

H. Ray Allen, Gary W. Arbogast, Thomas A. Cappaert, Judy P. Chandler, Li Chen, Christina Eyers, Janet S. Helfrich, James E. Hornak, Thomas Keating (Adjunct Professor), Marcia J. Mackey, Tracy W. Orlrich, Barbara K. Peddie, Donald J. Peddie, Rene' Revis Shingles, Janet L. Smith, Scott J. Smith, Stephen M. Thompson, Emily Webster
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 life-long learning;
• familiarity with their intellectual and cultural heritages;
• an understanding of social, psychological, and political environments; and
• an appreciation of other peoples and cultures.

Areas of Study

Departmental

The eight departments in the College offer a wide spectrum of degree programs at CMU. Most fields of study lead to a major or minor, many with emphases and concentrations. The departments and their primary fields of study are:

• English Language and Literature (English, Creative Writing, World Literature, English as a Second Language)
• Foreign Languages, Literatures and Cultures (French, German, Spanish, and coursework in Japanese, Latin, Russian, Ojibwe)
• History (History)
• Military Science (Military Science)
• Philosophy and Religion (Philosophy and Religious Studies)
• Political Science (Political Science, International Relations, Public Administration)
• Psychology (Psychology)

See the index of this Bulletin for more information on each of the above programs. The staff of the College of Humanities and Social & Behavioral Sciences office can also help you locate the appropriate department and advisor (Anspach 106; 989-774-3341).

Programs for Education Degrees

Four departments in the College also offer majors or minors under the Bachelor of Science in Education degree. Majors with secondary certification include English, history, French, German, Spanish, and social studies. Minors with secondary certification include English, history, French, German, Spanish, and an interdisciplinary program in Bilingual Bicultural Education—Spanish. Other teacher education certifications can be earned in elementary education, elementary special education, secondary education, and secondary special education. Each of these programs has specific major and minor requirements, some of which are found in the College of Humanities and Social & Behavioral Sciences.

If you are interested in any of the programs leading to teacher certification, consult both the specific department of choice in the Bulletin and the sections on degree programs and teacher certification.
Interdisciplinary Studies

The College is home of several interdisciplinary majors and minors, including a cutting-edge major in neuroscience that combines coursework across the disciplines of psychology, biology, chemistry and health professions. Other interdisciplinary majors are European Studies, Language Arts, Women's Studies, Social Science and Cognitive Science. Interdisciplinary minors are available in Women's Studies, Latin American Studies, and Humanities.

Courses offered under the designators HUM, LAR, and SSC are also interdisciplinary in character. See their descriptions in the Course Description section of the Bulletin.

Pre-Professional Studies

Professional programs such as law require certain basic preparatory work for acceptance into law school. Students should select a program of study that is strong in oral and written expression and fosters critical thinking skills and a critical understanding of the human institutions and values with which the law deals. There is no specific pre-law major, but Central Michigan University's College of Humanities and Social & Behavioral Sciences can provide much of the needed preparation for law school admissions.

Graduate Programs

Six departments in the college offer graduate programs at the masters and/or doctoral level. The English Department offers three masters level programs: M.A. in English Language and Literature (also with a concentration in Creative Writing), M.A. in Composition and Communication, and M.A. in Teaching English to Speakers of Other Languages (TESOL). Foreign Languages offers a unique M.A. program in Spanish designed to enhance fluency, foster interaction with Hispanic cultures, broaden knowledge, and promote professional development. Courses are offered on weekends and summers, and students experience two study abroad placements.

History offers a traditional M.A. and a joint M.A. and Ph.D. program in transnational comparative history, administered by CMU and the University of Strathclyde in Glasgow, Scotland. Graduate programs in political science include the Masters of Public Administration and a traditional M.A. in political science. The department also offers courses contributing to a concentration in public administration in the Master of Science in Administration.

Psychology's graduate programs include two masters level programs, a specialist degree, and four doctoral programs. They are the Master of Science in General/Experimental Psychology, a Master of Arts in Industrial/Organizational Psychology, a Specialist in Psychological Services in School Psychology, and Ph.D. programs in Clinical Psychology, School Psychology, Industrial/Organizational Psychology, and Applied Experimental Psychology. The Psychology Department has been a CMU Center for Excellence since 1992.

The Department of Sociology, Anthropology & Social Work offers a traditional M.A. in Sociology and an M.A. with a concentration in Social and Criminal Justice.

Combined Degrees

CMU offers several combined degree options. The Combined Bachelor of Arts or Science and a Master of Business Administration provides a well-rounded education by combining an undergraduate degree program in the more traditional liberal arts with graduate study in business administration. With appropriate advising and careful planning, the total time for completing both degrees will be five years.

Other combined degrees include the Integrated B.A./M.A. in History for highly motivated students. Students in this program accelerate their careers by undertaking graduate work toward the traditional Master of Arts degree concurrently with undergraduate work, as specified in the program of study and approved by the department and College of Graduate Studies.

Student Organizations

Nearly three dozen student organizations are affiliated with programs in the College of Humanities and Social & Behavioral Sciences. Among those groups are honor societies in English, foreign languages, history, military science, and psychology.

Other groups open to interested students include a literary journal; French, German, Japanese, and Spanish culture clubs; a variety of groups affiliated with military science; a pre-law organization that assists students in preparing for the LSAT; history, political science, social work, sociology, and psychology interest groups. Organizations schedule speakers and workshops, host annual meetings and 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 web page at http://www.chsbs.cmich.edu.
Why Study English?

The study of English affords students the opportunity to master the crucial, interrelated skills of thinking, reading, and writing through the immersion in the manifold products of language. Courses in linguistics and composition teach the skills necessary for the understanding and effective use of language. Courses in literature aid students in absorbing the full range of literary thought and art, thereby rendering them better able to understand themselves and their world. Courses in the art of teaching enable English majors or minors to transmit effectively the acquired legacy of their education to future generations.

English Language and Literature at CMU

The English Department offers two basic programs: liberal arts and teaching. Within each of these broad programs there are still additional choices, including, for example, the World Literature or Creative Writing concentration or an emphasis on secondary or elementary English education. Each program requires between thirty-nine and forty-two hours for a major and twenty-four to twenty-seven hours for a minor, depending on the choice and emphasis.

Students who elect to major or minor in English should declare this intention before the end of their sophomore year. Junior transfer students should declare during their first semester on campus. The departmental office assigns advisors to aid students in their major/minor program planning and to authorize programs for graduation and teacher preparation.

Notes:
- The English Department cannot guarantee that every course will be offered as designated.
- The department strongly recommends that all majors take a foreign language as a cognate.
- The English Language Institute offers a series of courses to assist students whose native language is not English to acquire the level of proficiency adequate for success in academic study. Because TOEFL scores are not always a reliable predictor of proficiency in English for academic tasks, the Institute gives new non-native speakers of English a placement test to determine their actual proficiency. On the basis of their placement scores, undergraduate students (1) will be required to enroll in ENG 198-199, American Language for International Students (or equivalent courses such as ENG 101 or ENG 103-099), successful completion of which demonstrates competence in basic writing or speech or both, and may pursue their academic program with no restriction; or (2) must enroll in the Institute full-time or part-time, depending upon their level of proficiency. In any case, all students enrolled in the Institute, before they pursue their studies full-time, must be certified by the Institute as having attained proficiency in academic English.

Majors and Minors

General statements that apply to English majors and minors:
A. 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.
B. The department supports the concept of advanced placement as well as exemption from required courses and credit earned through approved university examination programs.
C. ENG 070 to ENG 100, ENG 101, ENG 198, ENG 199, ENG 103/099 and ENG 201 do not apply on a major or minor.
D. English education majors and minors must present a minimal cumulative GPA 2.7 in all English coursework for departmental approval for directed teaching and for teaching certification. All required coursework must be completed before directed teaching, and all professional courses must be graded C+ or better.

English Major

B.S. in Ed. degree, Provisional Elementary Certification
See all general statements above.

Required Courses (27 hours):

A. Core Courses (9 hours)
- ENG 175 (3) The Nature of Language
- ENG 234 (3) Introduction to Literary Analysis
- ENG 460 (3) Senior Seminar: Current Issues in English

B. Literature (12 hours)
- ENG 251 (3) American Literature: Colonial-Romantic Period
- ENG 252 (3) American Literature: Realistic Period - Present
- ENG 330 (3) Mythological Backgrounds of Western Literature
- ENG 381 (3) Children’s Literature
- ENG 481 (3) International Literature for Children and Young Adults
- OR ENG 582 (3) Cultural Pluralism in Young Adult and Children’s Literature

(continued)
### English Minor

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

See all general statements at the beginning of this section.

**Required Courses (39 hours):**

**A. Core Courses (9 hours)**
- ENG 175 (3) The Nature of Language
- ENG 234 (3) Introduction to Literary Analysis
- ENG 460 (3) Senior Seminar: Current Issues in English

**B. Literature (21 hours chosen as follows: 6 hours from I, 3 hours from II, 3 hours from III and 9 hours from IV)**

1. **ENG 251 (3) American Literature: Colonial-Romantic Period**
   - OR **ENG 252 (3) American Literature: Realistic Period - Present**
   - AND one course from:
     - ENG 235 (3) English Literature: Beginning to Romantic Period
     - ENG 236 (3) English Literature: Romantic Period to Present
     - ENG 261 (3) Masterpieces in Ancient Literature
     - ENG 262 (3) Masterpieces in European Literature

2. **One course from:**
   - ENG 321 (3) Modern Poetry
   - ENG 336 (3) Early Modern English Literature
   - ENG 339 (3) Victorian Literature and Thought
   - ENG 340 (3) Modern British Literature
   - ENG 351 (3) American Literature: Colonial and Early Natl. Periods
   - ENG 352 (3) American Literature: Romantic Period
   - ENG 353 (3) American Literature: Realistic Period
   - ENG 354 (3) American Literature: Modern Period
   - ENG 362 (3) Literature of the Medieval World
   - ENG 439 (3) English Romantic Poetry and Prose
   - ENG 441 (3) Contemporary English Prose
   - ENG 454 (3) Contemporary American Prose
   - ENG 455 (3) American Novel
   - ENG 561 (3) European Romanticism

3. **One course from:**
   - ENG 328 (3) Literature of the North American Indian
   - ENG 329 (3) African American Literature
   - ENG 333 (3) Literature of Non-Western Cultures

4. **IV. ENG 349 (3) Shakespeare**
   - ENG 580 (3) Literature for Young Adults
   - AND one course from:
     - ENG 334 (3) Literary Theory
     - ENG 345 (3) Studies in Authors
     - ENG 435 (3) Studies in Texts

**C. Professional Courses (9 hours):**
- ENG 311 (3) Teaching Literature in the Secondary School
- ENG 319 (4) Teaching Composition in the Secondary School
- ENG 371 (2) Pedagogic Grammar

**Elective English Courses (3 hours):**

Total: 42 semester hours

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### English Major

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

See all general statements at the beginning of this section.

**Required Courses (39 hours):**

**A. Core Courses (9 hours)**
- ENG 175 (3) The Nature of Language
- ENG 234 (3) Introduction to Literary Analysis

**B. Literature (21 hours chosen as follows: 6 hours from I, 3 hours from II, 3 hours from III and 9 hours from IV)**

1. **ENG 251 (3) American Literature: Colonial-Romantic Period**
   - OR **ENG 252 (3) American Literature: Realistic Period - Present**
   - AND one course from:
     - ENG 235 (3) English Literature: Beginning to Romantic Period
     - ENG 236 (3) English Literature: Romantic Period to Present
     - ENG 261 (3) Masterpieces in Ancient Literature
     - ENG 262 (3) Masterpieces in European Literature

2. **One course from:**
   - ENG 321 (3) Modern Poetry
   - ENG 336 (3) Early Modern English Literature
   - ENG 339 (3) Victorian Literature and Thought
   - ENG 340 (3) Modern British Literature
   - ENG 351 (3) American Literature: Colonial and Early Natl. Periods
   - ENG 352 (3) American Literature: Romantic Period
   - ENG 353 (3) American Literature: Realistic Period
   - ENG 354 (3) American Literature: Modern Period
   - ENG 362 (3) Literature of the Medieval World
   - ENG 439 (3) English Romantic Poetry and Prose
   - ENG 441 (3) Contemporary English Prose
   - ENG 454 (3) Contemporary American Prose
   - ENG 455 (3) American Novel
   - ENG 561 (3) European Romanticism

3. **One course from:**
   - ENG 328 (3) Literature of the North American Indian
   - ENG 329 (3) African American Literature
   - ENG 333 (3) Literature of Non-Western Cultures

4. **IV. ENG 349 (3) Shakespeare**
   - ENG 580 (3) Literature for Young Adults
   - AND one course from:
     - ENG 334 (3) Literary Theory
     - ENG 345 (3) Studies in Authors
     - ENG 435 (3) Studies in Texts

**C. Professional Courses (9 hours):**
- ENG 311 (3) Teaching Literature in the Secondary School
- ENG 319 (4) Teaching Composition in the Secondary School
- ENG 371 (2) Pedagogic Grammar

**Elective English Courses (3 hours):**

Total: 42 semester hours
B. Literature: (12 hours)
   I. ENG 251 (3) American Literature: Colonial - Romantic Period
      OR ENG 252 (3) American Literature: Realistic Period - Present
   II. AND one course selected from:
       ENG 235 (3) English Literature: Beginning to Romantic Period
       ENG 236 (3) English Literature: Romantic Period to Present
       ENG 261 (3) Masterpieces of Ancient Literature
       ENG 262 (3) Masterpieces of European Literature
   III. ENG 349 (3) Shakespeare
       ENG 580 (3) Literature for Young Adults

C. Professional Courses (5-6 hours)
   ENG 311 (3) Teaching Literature in the Secondary School
   OR ENG 319 (4) Teaching Composition in the Secondary School
   ENG 371 (2) Pedagogic Grammar

Elective English Courses (3 hours)
Total: 26-27 semester hours

English Major
B.A., B.S. Degrees
See general statements A, B, and C at the beginning of this section.

Required Courses (27 hours):
A. Core Courses (9 hours):
   ENG 234 (3) Introduction to Literary Analysis
   ENG 460 (3) Senior Seminar: Current Issues in English
   AND one course chosen from:
   ENG 175 (3) The Nature of Language
   ENG 271 (3) Modern Grammar
   ENG 375 (3) Introduction to Linguistics
   ENG 379 (3) History and Development of the English Language
   ENG 545 (3) Chaucer
   ENG 570 (3) Old English

B. Literature (18 hours):
   I. ENG 251 (3) American Literature: Colonial Through Romantic Period
      OR ENG 252 (3) American Literature: Realistic Period to the Present
      ENG 261 (3) Masterpieces of Ancient Literature
      OR ENG 262 (3) Masterpieces of European Literature
   II. ENG 349 (3) Shakespeare
   III. One course chosen from:
        ENG 321 (3) Modern Poetry
        ENG 332 (3) Contemporary Literature and Thought
        ENG 336 (3) Early Modern English Literature
        ENG 339 (3) Victorian Literature and Thought
        ENG 340 (3) Modern British Literature
        ENG 351 (3) American Literature: Colonial and Early National Periods
        ENG 352 (3) American Literature: Romantic Period
        ENG 353 (3) American Literature: Realistic Period
        ENG 354 (3) American Literature: Modern Period
        ENG 362 (3) Literature of the Medieval World
        ENG 455 (3) American Novel
   IV. One course chosen from:
       ENG 345 (3) Studies in Authors
       OR ENG 435 (3) Studies in Texts
       One of the courses chosen from I., III., IV., or the linguistics courses in A. must cover a literary period prior to 1800.

Elective English Courses (12 hours)
Total: 39 semester hours

Creative Writing Concentration

Required Courses (27 hours):
A. Core Courses (9 hours):
   ENG 234 (3) Introduction to Literary Analysis
   ENG 460 (3) Senior Seminar: Current Issues in English
   AND one course chosen from:
   ENG 175 (3) The Nature of Language
   ENG 271 (3) Modern Grammar
   ENG 375 (3) Introduction to Linguistics
   ENG 379 (3) History and Development of the English Language
   ENG 545 (3) Chaucer
   ENG 570 (3) Old English

B. Literature (18 hours):
   I. ENG 251 (3) American Literature: Colonial Through Romantic Period
      OR ENG 252 (3) American Literature: Realistic Period to the Present
      ENG 261 (3) Masterpieces of Ancient Literature
      OR ENG 262 (3) Masterpieces of European Literature
   II. ENG 349 (3) Shakespeare
   III. One course chosen from:
        ENG 321 (3) Modern Poetry
        ENG 332 (3) Contemporary Literature and Thought
        ENG 336 (3) Early Modern English Literature
        ENG 339 (3) Victorian Literature and Thought
        ENG 340 (3) Modern British Literature
        ENG 351 (3) American Literature: Colonial and Early National Periods
        ENG 352 (3) American Literature: Romantic Period
        ENG 353 (3) American Literature: Realistic Period
        ENG 354 (3) American Literature: Modern Period
        ENG 362 (3) Literature of the Medieval World
        ENG 455 (3) American Novel
   IV. One course chosen from:
       ENG 345 (3) Studies in Authors
       OR ENG 435 (3) Studies in Texts
       One of the courses chosen from I., III., IV., or the linguistics courses in A. must cover a literary period prior to 1800.

Creative Writing Core (12 hours)
   ENG 294 (3) Introduction to Creative Writing
   Students may focus in poetry, prose, or both by selecting 9 hours from among the following (9 hours):
   ENG 391 (3) Creative Writing: Fiction
   ENG 392 (3) Creative Writing: Poetry
   ENG 491 (3-6) Advanced Fiction Writing
   OR ENG 492 (3-6) Advanced Poetry Writing
   All creative writing courses have prerequisites.
   Either ENG 491 or ENG 492 may be repeated up to six hours with the same instructor.

Total: 39 semester hours
World Literature Concentration

Required Courses (27 hours):

A. Core Courses (9 hours)
- ENG 234 (3) Introduction to Literary Analysis
- ENG 460 (3) Senior Seminar: Current Issues in English
  AND one course chosen from:
  - ENG 175 (3) The Nature of Language
  - ENG 271 (3) Modern Grammar
  - ENG 375 (3) Introduction to Linguistics
  - ENG 379 (3) History and Development of the English Language
  - ENG 545 (3) Chaucer
  - ENG 570 (3) Old English

B. Literature (18 hours)
- I. ENG 235 (3) English Literature: Beginning to Romantic Period
  OR ENG 236 (3) English Literature: Romantic Period to Present
- Eng 251 (3) American Literature: Colonial through the Romantic Period
  OR ENG 252 (3) American Literature: Realistic Period to the Present
- ENG 261 (3) Masterpieces of Ancient Literature
- Eng 262 (3) Masterpieces of European Literature
- II. ENG 349 (3) Shakespeare
- III. One course chosen from:
  - ENG 321 (3) Modern Poetry
  - ENG 332 (3) Contemporary Literature and Thought
  - ENG 333 (3) Literatures of Non-Western Cultures
  - ENG 336 (3) Early Modern English Literature
  - ENG 339 (3) Victorian Literature and Thought
  - ENG 340 (3) Modern British Literature
  - ENG 351 (3) American Literature: Colonial and Early National Periods
  - ENG 352 (3) American Literature: Romantic Period
  - ENG 353 (3) American Literature: Realistic Period
  - ENG 354 (3) American Literature: Modern Period
  - ENG 362 (3) Literature of the Medieval World
  - ENG 455 (3) American Novel
- IV. One course chosen from:
  - ENG 345 (3) Studies in Authors
  OR ENG 435 (3) Studies in Texts

ONE OF THE COURSES CHOSEN FROM I., II., OR III. MUST COVER A LITERARY PERIOD PRIOR TO 1800.

WORLD LITERATURE CORE
(12 Hours chosen from the following)
- ENG 261 (3) Masterpieces of Ancient Literature
- ENG 262 (3) Masterpieces of European Literature
- ENG 330 (3) Mythological Backgrounds of Western Literature
- ENG 332 (3) Contemporary Literature and Thought
- ENG 333 (3) Literatures of Non-Western Cultures
- ENG 365 (3) The Bible as Literature
- ENG 561 (3) European Romanticism: A Comparative Approach
- ENG 569 (3) Seminar in Major World Writers

Total: 39 semester hours

English Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A. degrees

See general statements A, B, and C at the beginning of this section.

Required Courses (18 hours):

A. Core Courses (6 hours)
- ENG 234 (3) Introduction to Literary Analysis
  AND one course from:
  - ENG 175 (3) The Nature of Language
  - ENG 271 (3) Modern Grammar
  - ENG 375 (3) Introduction to Linguistics
  - ENG 379 (3) History and Development of the English Language
  - ENG 545 (3) Chaucer
  - ENG 570 (3) Old English

B. Literature (12 hours)
- Two courses chosen from:
  - I. ENG 251 (3) American Literature: Colonial through the Romantic Period
  - ENG 252 (3) American Literature: Realistic Period to the Present
  - ENG 235 (3) English Literature: Beginning to Romantic Period
  - ENG 236 (3) English Literature: Romantic Period to Present
  - ENG 261 (3) Masterpieces of Ancient Literature
  - ENG 262 (3) Masterpieces of European Literature
  - II. ENG 349 (3) Shakespeare
  - III. One course chosen from:
    - ENG 332 (3) Contemporary Literature and Thought
    - ENG 336 (3) Early Modern English Literature
    - ENG 339 (3) Victorian Literature and Thought
    - ENG 340 (3) Modern British Literature
    - ENG 351 (3) American Literature: Colonial and Early National Periods
    - ENG 352 (3) American Literature: Romantic Period
    - ENG 353 (3) American Literature: Realistic Period
    - ENG 354 (3) American Literature: Modern Period
    - ENG 362 (3) Literature of the Medieval World
    - ENG 439 (3) English Romantic Poetry and Prose
    - ENG 441 (3) Contemporary English Prose
    - ENG 454 (3) Contemporary American Prose
    - ENG 561 (3) European Romanticism: A Comparative Approach

Elective English Courses (6 hours)
Total: 24 semester hours

English as a Second Language Minor
B.S. in Ed., Provisional Elementary or Secondary Certification

Admission, Retention, and 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 non-native 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 550 (or computer-based TOEFL of 213) 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.
Non-native speakers of English whose TOEFL scores are between 500 and 550 (computer-based TOEFL of 173-213) 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.

Core Courses (18 hours)

ENG 175 (3) The Nature of Language  
ENG 375 (3) Introduction to Linguistics  
ENG 571 (3) Teaching of English to Speakers of Other Languages  
ENG 574 (3) TESOL: Materials, Assessment, Curriculum  
ENG 577 (3) Introduction to Second Language Acquisition  
ENG 578 (3) Applied Sociolinguistics  
OR EDU 513 (3) Foundations of Bilingual Bicultural Education

Elective courses (6 hours)

In addition to 18 hours required coursework, students must choose TWO electives from the groups listed below:

Group 1. Select one of the courses below  
CDO 130 (3) Normal Speech and Language Acquisition  
OR ENG 573 (3) Linguistics and Reading

Group 2. Select one of the courses below:  
IPC 195 (3) Intercultural Communication  
SPE 550 (3) Teaching Culturally Diverse Students  
EDU 514 (3) Methods and Materials for Bilingual Bicultural Education  
ENG 576 (3) Fundamental Issues in Language

Total Hours Required: 24

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 - de Larquier, Labrie, Palka; for German - Moffit (teaching degrees), Jones and Lein (non-teaching degrees); for Japanese - Richardson; for Spanish - Courtad, Gillingham, Hurtado, Jackson, Knight, Kulawik, Rengifo, and Richardson.

Study Abroad.

Students can register at CMU to study abroad at the following institutions:

**French**
- in Paris at the Alliance Française;
- in Rennes at the University of Haute-Bretagne;
- in Angers at the Centre International d’Etudes Françaises;
- in Annecy at the Institut Français;
- in Canada at the University of Quebec at Chicoutimi. CMU and the University of Quebec at Chicoutimi offer a joint scholarship of $600 for study during the five week immersion program. This grant is for majors or minors in French to study at UQAC.

**German**
- in the spring semester at the Tandem Program in Bielefeld. The course lasts for 16 weeks, and students receive 12 credits upon successful completion. Programs at Goethe Institutes can be taken in the summer. In addition, we offer three exchange scholarships to eligible majors in German for a year’s study at a German university. The scholarship includes tuition, room and board, and spending money for the entire year. A summer internship in a German company is available to students majoring/minoring in both German and business.

**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, the University of Sevilla, Center for Cross-Cultural Studies (Sevilla), Cursos Americanos e Internacionales (Segovia); in the Dominican Republic: the Universidad Católica Madre y Maestra; in Chile: at the Universidad Austral de Chile (Valdivia) and the Pontificia Universidad Católica (Valparaiso); in Mexico: the Universidad Autonoma de Guadalajara, the Universidad Autonoma de Queretaro and the UDLAP (Puebla); in Argentina: Universidad de Belgrano and Universidad de Buenos Aires; in Cuba: CCCS and CIEE (Havana); in Ecuador: the Universidad San Francisco de Quito and the Universidad Laica De Guayaquil (Guayaquil).

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.

Admission, Retention, and Termination Standards

**Majors and Minors**

The department offers majors and minors in French, German, and Spanish. The sequences 101 - 102 - 201 - 202 provide the basis for all advanced study in French, German and Spanish. In Spanish, 214 is added to this basis. Without previous language experience, prospective majors and minors begin with 101. Students who have previously studied a foreign language must take the placement test. They are placed higher in the sequence based on previously attained skills in the language. Placement exams are available in French, German, and Spanish. For placement questions about other languages, contact the department.

**Notes:**

All foreign language majors are required to take nine hours of language at the 300 level or above on campus.
One course at the 200 level and 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 after a departmental review of each case and an interview with the student.

**International Baccalaureate:** Credit is given for a score of three or above; a score of 5 requires a departmental review and an interview with the student.

**Transfer Students** majoring in a foreign language must earn at least nine credit hours in their major at CMU; those minoring must earn at least six credit hours in their minor at CMU. These hours must be taken on campus.
Retroactive Credit: Students who enroll in an entry level course (102, 201, 202), or a course beyond 202 (FRN 315 or 316, GER 311 or 312, or SPN 214 or 311), 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. Up to four retroactive credits on the 200-level may be counted on the major or minor.

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

B.S. in Ed. degree options require students to pass all portions of the proficiency exam in each language before taking any foreign language methods courses (411, 412, 421). Majors and minors will be admitted to student teaching in foreign language only if they have a GPA of 3.0 in foreign language studies. 411, 412 and 421 are not courses in language studies and are not considered in this GPA.

French Language

French Major
B.S. in Ed., Provisional Elementary or Secondary Certification

At least 34 hours of FRN courses including 31 hours at the 300 level or above.

Required courses include: (7-15 hours)
- FRN 201 (4) Intermediate French I*
- FRN 202 (4) Intermediate French II*
- FRN 315 (3) Advanced French I
- FRN 316 (3) Advanced French II
- FRN 430 (1) French Culture Web Pages**

Other requirements: (12 hours)
Courses in French and Francophone culture and/or literature from:
- FRN 320 (3) French Civilization
- FRN 321 (3) France Today
- FRN 330 (3) Survey of French Literature (Beginning to 1800)
- FRN 331 (3) Survey of French Literature (1800 to Present)
- FRN 333 (3) Survey of Francophone Literature
- FRN 403 (3) French Literature of the Middle Ages and Renaissance
- FRN 404 (3) French Literature of the Seventeenth Century
- FRN 406 (3) French Literature of the Eighteenth Century
- FRN 407 (3) French Literature of the Nineteenth Century
- FRN 409 (3) French Literature of the Twentieth Century
- FRN 420 (3) Literature and Culture of Quebec
- FRN 591 (1-6) Studies in French Culture

Electives at 300 level or above (9-12 hours)

B.S. in Ed. degree requirements: (4 hours)
- FRN 411 (3) Practicum in Teaching French
- FRN 412 (1) Practicum: Field Experience

Total: 34-40 semester hours
*These courses may be required, depending on a student’s initial placement by the department.
**This is the Capstone course for French majors.

Additional requirements for K-12 certification on B.S. in Ed. degree options (5 hours):
An additional hour in FRN 412 (for a total of two hours)
- FRN 421 (1) Foreign Language in Elementary School
- EDU 310 (3) Psychological Foundations of Education (on the B.S. in Ed. degree, Provisional Elementary Certification)
- OR EDU 280 (3) Education of Children (on the B.S. in Ed. degree, Provisional Secondary Certification)

Total: 39-45 semester hours

French Major
B.A.; B.S. degrees

At least 30 hours of FRN courses including 28 hours at 300 level or above.

Required courses (7-15 hours):
- FRN 201 (4) Intermediate French I*
- FRN 202 (4) Intermediate French II*
- FRN 315 (3) Advanced French I
- FRN 316 (3) Advanced French II
- FRN 430 (1) French Culture Web Pages**

Other requirements: (12 hours)
Courses in French and Francophone culture and/or literature from:
- FRN 320 (3) French Civilization
- FRN 321 (3) France Today
- FRN 330 (3) Survey of French Literature (Beginning to 1800)
- FRN 331 (3) Survey of French Literature (1800 to Present)
- FRN 333 (3) Survey of Francophone Literature
- FRN 403 (3) French Literature of the Middle Ages and Renaissance
- FRN 404 (3) French Literature of the Seventeenth Century
- FRN 406 (3) French Literature of the Eighteenth Century
- FRN 407 (3) French Literature of the Nineteenth Century
- FRN 409 (3) French Literature of the Twentieth Century
- FRN 420 (3) Literature and Culture of Quebec
- FRN 591 (1-6) Studies in French Culture

Electives at 300 level or above (9-12 hours)
Total: 30-36 semester hours
*These courses may be required, depending on a student's initial placement by the department.
**This is the Capstone course for French majors.

French Major
Commercial French Concentration
B.A.; B.S. degrees

At least 30 hours including 24 hours at the 300 level or above. Depending on a student’s initial placement by the department, required courses include:
- FRN 201 (4) Intermediate French I
- FRN 202 (4) Intermediate French II
- FRN 211 (2) French Conversation
- FRN 212 (2) French Language Study: Structure and Composition
- FRN 311 (3) Advanced French and Conversation

Plus 6-9 hours from:
- FRN 320 (3) French Civilization
- FRN 321 (3) France Today
- FRN 330 (3) Survey of French Literature (Beginning to 1800)
- FRN 331 (3) Survey of French Literature (1800 to Present)
- FRN 333 (3) Survey of Francophone Literature
- FRN 332 (3) Advanced Language Skills Composition

(continued)
Required courses: (9-17 hours)
FRN 310 (7-11) Study Abroad
FRN 410 (6) Study Abroad

The courses taken in Paris can vary, but will always be French language and content courses relative to business. To qualify for the Paris Internship and Study program, students must have at least a 3.0 GPA in French and a 2.75 GPA overall. A written French language exam is required as part of the admission process. They must also have participated in a study program for a minimum of 6 weeks, or had a living experience in a French-speaking country or have obtained an intermediate-high rating on the ACTFL oral proficiency interview.

Total: 30-36 semester hours

Electives at 300 level or above (3-9 hours)

B.S. in Ed., Provisional Elementary or Secondary Certification
At least 23 hours of FRN courses including 19 hours at the 300 level or above.

Required courses: (10-18 hours)
FRN 201 (4) Intermediate French I*
FRN 202 (4) Intermediate French II*
FRN 315 (3) Advanced French I
FRN 316 (3) Advanced French II
FRN 411 (3) Practicum in Teaching French
FRN 421 (1) Foreign Language in the Elementary Schools

Other requirements: (6 hours)
Courses in French and Francophone culture and/or literature from:
FRN 320 (3) French Civilization
FRN 321 (3) France Today
FRN 330 (3) Survey of French Literature (Beginning to 1800)
FRN 331 (3) Survey of French Literature (1800 to Present)
FRN 333 (3) Survey of Francophone Literature
FRN 403 (3) French Literature of the Middle Ages and Renaissance
FRN 404 (3) French Literature of the Seventeenth Century
FRN 406 (3) French Literature of the Eighteenth Century
FRN 407 (3) French Literature of the Nineteenth Century
FRN 408 (3) French Literature of the Twentieth Century
FRN 420 (3) Literature and Culture of Quebec
FRN 591 (1-6) Studies in French Culture

Electives at 300 level or above (3-9 hours)

Total: 23-27 semester hours

*B These courses may be required, depending on a student’s initial placement by the department.

German Language

German Major
B.S. in Ed., Provisional Elementary or Secondary Certification

At least 34 hours of GER courses including 31 hours at the 300 level or above.

Required courses: (10-18 hours)
GER 201 (4) Intermediate German I*
GER 202 (4) Intermediate German II*
GER 311 (3) Advanced German I
GER 312 (3) Advanced German II
GER 411 (3) Practicum in Teaching German
GER 412 (1) Practicum: Field Experience

Other requirements: (12 hours)
Courses in German culture and/or literature from:
GER 335 (3) The Culture of the German Economy
GER 336 (3) The Culture of German Business
GER 341 (3) German Cultural History I
GER 342 (3) German Cultural History II
GER 343 (3) Survey of German Literature I
GER 344 (3) Survey of German Literature II
GER 347 (3) German Cultural History III
GER 370 (1-4) Advanced Studies in German
GER 403 (3) German Literature to 1776
GER 405 (3) German Classicism
GER 407 (3) German Literature of the Nineteenth Century
GER 409 (3) German Literature of the Twentieth Century
GER 470 (1-4) Advanced Studies in German

Electives at the 300 level or above (9-12 hours)
Total 34-39 semester hours

*These courses may be required, depending on a student's initial placement by the department.

Additional requirements for K-12 certification on B.S. in Ed.
degree options: (5 hours)
An additional hour in GER 412 (for a total of two hours)
GER 421 (1) Foreign Language in Elementary School
EDU 310 (3) Psychological Foundations of Education
(on B.S. in Ed. degree, Provisional Elementary Certification)
OR EDU 280 (3) Education of Children
(on the B.S. in Ed. degree, Provisional Secondary Certification)

Total: 39-44 semester hours

German Major

B.A.; B.S. degree

At least 30 hours of GER courses including 27 hours at the 300 level or above

Required courses: (6-14 hours)
GER 201 (4) Intermediate German I*
GER 202 (4) Intermediate German II*
GER 311 (3) Advanced German I
GER 312 (3) Advanced German II

Other Requirements: (12 hours)
Courses in German culture and/or literature from:
GER 335 (3) The Culture of the German Economy
GER 336 (3) The Culture of German Business
GER 341 (3) German Cultural History I
GER 342 (3) German Cultural History II
GER 343 (3) Survey of German Literature I
GER 344 (3) Survey of German Literature II
GER 347 (3) German Cultural History III
GER 370 (1-4) Advanced Studies in German
GER 403 (3) German Literature to 1776
GER 405 (3) German Classicism
GER 407 (3) German Literature of the Nineteenth Century
GER 409 (3) German Literature of the Twentieth Century
GER 470 (1-4) Advanced Studies in German

Electives at the 300 level or above (9-12 hours)
Total: 30-35 semester hours

*These courses may be required, depending on a student's initial placement by the department.

German Minor

B.A.; B.S. degree

At least 20 hours of GER courses including 15 hours at the 300 level or above.

Required courses include: (6-14 hours)
GER 201 (4) Intermediate German I*
GER 202 (4) Intermediate German II*
GER 311 (3) Advanced German I
GER 312 (3) Advanced German II
GER 411 (3) Practicum in Teaching German
GER 421 (1) Foreign Language in the Elementary Schools

Other requirements: (6 hours)
Courses in German culture and/or literature from:
GER 335 (3) The Culture of the German Economy
GER 336 (3) The Culture of German Business
GER 341 (3) German Cultural History I
GER 342 (3) German Cultural History II
GER 343 (3) Survey of German Literature I
GER 344 (3) Survey of German Literature II
GER 347 (3) German Cultural History III
GER 370 (1-4) Advanced Studies in German
GER 403 (3) German Literature to 1776
GER 405 (3) German Classicism
GER 407 (3) German Literature of the Nineteenth Century
GER 409 (3) German Literature of the Twentieth Century
GER 470 (1-4) Advanced Studies in German

Electives at 300 level or above (3-7 hours)
Total: 23-27 semester hours

*These courses may be required, depending on a student's initial placement by the department.

German Minor

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

At least 23 hours of GER courses including 19 hours at the 300 level or above.

Required courses include: (10-18 hours)
GER 201 (4) Intermediate German I*
GER 202 (4) Intermediate German II*
GER 311 (3) Advanced German I
GER 312 (3) Advanced German II
GER 411 (3) Practicum in Teaching German
GER 421 (1) Foreign Language in the Elementary Schools

Other requirements: (6 hours)
Courses in German culture and/or literature from:
GER 335 (3) The Culture of the German Economy
GER 336 (3) The Culture of German Business
GER 341 (3) German Cultural History I
GER 342 (3) German Cultural History II
GER 343 (3) Survey of German Literature I
GER 344 (3) Survey of German Literature II
GER 347 (3) German Cultural History III
GER 370 (1-4) Advanced Studies in German
GER 403 (3) German Literature to 1776
GER 405 (3) German Classicism
GER 407 (3) German Literature of the Nineteenth Century
GER 409 (3) German Literature of the Twentieth Century
GER 470 (1-4) Advanced Studies in German
Spanish Language

Spanish Major

B.S. in Ed., Provisional Elementary or Secondary Certification
At least 34 hours of SPN courses including 31 hours at the 300 level or above.

Required Core Courses: (12-23 hours)
- SPN201 (4) Intermediate Spanish I*
- SPN202 (4) Intermediate Spanish II*
- SPN214 (3) Intermediate Conversation and Composition*
- SPN331 (3) Advanced Grammar and Composition
- SPN341 (3) Advanced Spanish Conversation
- SPN376 (3) Culture and Civilization of Spain
- SPN377 (3) Culture and Civilization of Latin America

*Courses that may be required, depending on a student's initial placement by the department.

Other Requirements: (courses to be selected in consultation with a Spanish advisor)

- Three (3) credit hours of literature chosen from: SPN 386, 387, 388, 389 or 370 (may count for required literature course when topic deals with literature).
- Six (6) to nine (9) credit hours at the 300 level or above chosen from:
  - SPN320 (3) Spanish Pronunciation
  - SPN335 (3) Spanish for Business
  - SPN370 (1-4) Advanced Studies in Spanish
  - SPN386 (3) Survey of Spanish Literature (Beginning to 1700)
  - SPN387 (3) Survey of Spanish Literature (1700 to Present)
  - SPN388 (3) Survey of Spanish-American Literature (Beginnings to Modernism)
  - SPN389 (3) Survey of Spanish-American Literature (Modernism to Present)
- Six (6) additional credit hours at the 400 level or above

Total: 30-38 semester hours

Spanish Major: Spanish for Business Concentration

B.A.; B.S. degrees
At least 30 hours of SPN courses including 27 hours at the 300 level or above.

Required Courses: (12-23 hours)
- SPN201 (4) Intermediate Spanish I*
- SPN202 (4) Intermediate Spanish II*
- SPN214 (3) Intermediate Conversation and Composition*
- SPN331 (3) Advanced Grammar and Composition
- SPN341 (3) Advanced Spanish Conversation
- SPN376 (3) Culture and Civilization of Spain
- SPN377 (3) Culture and Civilization of Latin America

*Courses that may be required, depending on a student's initial placement by the department.

Other Requirements (15 hours): (to be selected in consultation with a Spanish advisor)
- SPN335 (3) Spanish for Business
- SPN310 (6) Study Abroad*
- SPN410 (6) Study Abroad*

* Completion of this concentration requires the student to study abroad for one semester during which the student will enroll for 12 credits. At the 300-level, the student takes courses conducted in Spanish and related to business. At the 400-level, the student participates in an internship.

Electives at the 300 level or above: (0-3)
Total: 30-38
Spanish Minor  
**B.A.; B.S. degrees, Plan A and B**

At least 20 hours of SPN courses including 15 hours at the 300 level or above.

**Required Core Courses: (6-17 hours)**
- SPN 201 (4) Intermediate Spanish I *
- SPN 202 (4) Intermediate Spanish II *
- SPN 214 (3) Intermediate Conversation and Composition *
- SPN 331 (3) Advanced Grammar and Composition
- SPN 341 (3) Advanced Spanish Conversations

* Course that may be required, depending on a student's initial placement by the department.

**Other Requirements: (to be selected in consultation with a Spanish advisor)**
- Three (3) credit hours of culture chosen from:
  - SPN 376 (3) Culture and Civilization of Spain
  - SPN 377 (3) Culture and Civilization of Latin America
- Six (6) to twelve (12) additional hours at the 300 level or above.

**Total: 20-26 semester hours**

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Spanish Minor  
**B.S. in Ed., Provisional Elementary Certification**

At least 20 hours of SPN courses, including 19 hours at the 300 level or above.

**Required Core Courses: (6-17 hours)**
- SPN 201 (4) Intermediate Spanish I *
- SPN 202 (4) Intermediate Spanish II *
- SPN 214 (3) Intermediate Conversation and Composition *
- SPN 331 (3) Advanced Grammar and Composition
- SPN 341 (3) Advanced Spanish Conversations

* Courses that may be required, depending on a student's initial placement by the department.

**Other requirements: (to be selected in consultation with a Spanish advisor)**
- Three (3) credit hours of culture chosen from:
  - SPN 376 (3) Culture and Civilization of Spain
  - SPN 377 (3) Culture and Civilization of Latin America
- Six (6) to twelve (12) additional hours at the 300 level or above.
- Three (3) hours of methodology:
  - SPN 411 (3) Practicum in Teaching Spanish

**Total: 20-30 semester hours**

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

At least 20 hours of SPN courses, including 18 hours at the 300 level or above.

**Required Core Courses: (6-17 hours)**
- SPN 201 (4) Intermediate Spanish I *
- SPN 202 (4) Intermediate Spanish II *
- SPN 214 (3) Intermediate Conversation and Composition *
- SPN 331 (3) Advanced Grammar and Composition
- SPN 341 (3) Advanced Spanish Conversations

* Courses that may be required, depending on a student's initial placement by the department.

**Other requirements: (to be selected in consultation with a Spanish advisor)**
- Three (3) credit hours of culture chosen from:
  - SPN 376 (3) Culture and Civilization of Spain
  - SPN 377 (3) Culture and Civilization of Latin America
- Six (6) to twelve (12) additional hours at the 300 level or above.
- Three (3) hours of methodology:
  - SPN 411 (3) Practicum in Teaching Spanish

**Total: 20-29 semester hours**

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The faculty. James Courtad, Cynthia Espinosa, Mary Gillingham, Dale Hartkemeyer, Luz Marcela Hurtado, Mary-Garland Jackson, James Jones, Susan Knight, Krzysztof Kulawik, Gilles Labrie, Janet D. Lein, Gisela Moffit, Keith Palka, Alejandra Rengifo, Norma H. Richardson
Why Study History?

The study of history is an important part of a university education and an excellent preparation for a wide range of careers. History courses provide an understanding of the political, cultural, social, and economic life of past civilizations and help us understand the world in which we live.

A history major or minor provides a broad education that informs and shapes the thinking of the entire person. A history minor, in particular, is an excellent balance to specialized vocational and pre-professional studies. Thus, the career opportunities for history graduates in teaching, the professions and public service, industry and commerce are exceedingly wide and varied. A history major or minor provides direct preparation for graduate study leading to an M.A. or Ph.D. degree and to careers in areas such as teaching, research, museum, library, or archival work.

Historical knowledge and the skills in reading, writing, and analysis developed through historical study are excellent preparation for law school and for government employment. Particularly in conjunction with coursework in business, economics, sociology, political science, and mathematics, such knowledge and skills are also excellent undergraduate preparation for graduate work in business administration or journalism.

History at CMU

The Department of History offers a variety of courses in the University Program that introduce students to the multifaceted discipline of history as well as to American, African, European, Asian, Middle Eastern and Latin American civilizations. Courses on both the 100 and 200 levels are designed for freshmen and sophomores or for students wishing a broad overview of a particular country or civilization.

The major or minor in history can be taken on a variety of teaching and nonteaching degrees. The department participates in an interdisciplinary major in the social sciences and in minors in American ethnic studies, bilingual bicultural education, Ojibwe, humanities, Latin American studies, military science, Native American studies, and women's studies. Additionally, the department offers a Master of Arts and Joint Master of Arts and Ph. D. degrees in history.

Admission, Retention, and 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 unspecified content or variable credit include HST 532, 590, 595, 597, 601, 690, and 791.
7. The history department does not accept the CLEP examination for credit toward a major or minor.
8. Up to six hours of credit for AP examinations will be approved as follows: three credits for a score of four for History (American) in HST 111 or History (European) in HST 102; or six credits for a score of five for History (American) in HST 111 and HST 112 or History (European) in HST 101 and HST 102.
9. The history department strongly urges all history majors and minors, particularly those planning to teach history or to go on to graduate study, to participate in the CMU Semester Abroad program. Interested students should see a department study abroad advisor or the International Education office as early as possible.

Integrated B.A./M.A.

Admission Standards
1. Written recommendation of a CMU history professor.
2. Six (6) hours of history coursework completed with at least a 3.25 GPA in those courses and a 3.25 overall GPA or permission of advisor.

Retention Standards
1. Maintenance of a 3.5 GPA in history courses.
2. Failure to maintain satisfactory work (3.0 GPA) in two successive semesters will result in removal from the integrated program.
History Major

Non-Teaching; B.A., B.S. degrees

Fifteen hours of history courses numbered 300-599 from the following:
- One Seminar (HST 496, 566, or a substitute approved by advisor)
- One additional course at the 500 level (HST 590 cannot be used for this requirement)
- HST 301: The Craft of History
- Two additional courses at the 300-500 level

Eighteen hours of history courses numbered 100-599
Courses above must include at least one in each of the following fields: American, Modern Europe, Non-Western or Third World, Pre-Modern.

Total: 33 semester hours

Field Requirements
Courses listed below meet field requirements as follows:

- **American:**

- **Moderrn European:**

- **Non-Western and Third World:**

- **Pre-Modern:**

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

History Major

B.S. in Education Degree, Provisional Elementary Certification

Students must also earn credit in EDU 340. See additional information for students seeking department's recommendation for student teaching.

Fifteen hours of history courses numbered 300-599 as follows:
- HST 301: The Craft of History
- One seminar (HST 496, 566, or a substitute approved by advisor)
- One additional course at the 500 level (HST 511, 515, or 558 especially recommended. HST 590 cannot be used for this requirement)
- Two additional courses at the 300-500 level (must include one of HST 320, 321, 324, 325, or 326)

Survey Courses (12 hours)
- HST 101 and HST 102: Western Civilization
- HST 111 and HST 112: American History

Six hours of history courses numbered 100-599
Courses above must include at least two courses in Non-Western or Third World History (HST 163, HST 168, HST 176, HST 237, HST 369, HST 370)

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

See additional information for students seeking department's recommendation for student teaching.

Fifteen hours of history courses numbered 300-599 as follows:
- HST 301: The Craft of History
- One seminar (HST 496, 566, or a substitute approved by advisor)
- One additional course at the 500 level (HST 590 cannot be used for this requirement)
- Two additional courses at the 300-500 level

Survey Courses (12 hours)
- HST 101 and HST 102: Western Civilization
- HST 111 and HST 112: American History

Six hours of history courses numbered 100-599
Courses above must include the following:
- One course (3 hours) in Non-Western or Third World History
- One course (3 hours) in American history in addition to HST 111 and HST 112
- HST 300 (2 hours)*
- HST 400 (3 hours)

Total: 38 semester hours

*Students may be exempt from this course if they have completed a mid-tier experience for a second major in a program in the humanities or social sciences. To be exempt from HST 300, students must have advisor approval.

History Minor

Non-Teaching; B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Required Courses (9 hours at the 300 level or above).

Elective Courses (11 or more additional hours in history)

Total: 21 semester hours

History Minor

B.S. in Education Degree, Provisional Elementary Certification or Provisional Elementary Certification with Emotional or Cognitive Impairment Endorsement

See additional information for students seeking department's recommendation for student teaching.

Survey Courses (12 hours)
- HST 101 and HST 102: Western Civilization
- HST 111 and HST 112: American History

Non-Western or Third World History (3 hours from the following)
- HST 163: The Latin American Experience
- HST 168: The Far East
- HST 176: The African Experience

U.S. Social History (3 hours from the following)
- HST 221: Growing Up in America
- HST 320: United States Social History to 1865
- HST 321: United States Social History since 1865
- HST 323: History of Native Americans
- HST 324: African-American History to 1915
- HST 325: African-Americans in Twentieth Century America
- HST 326: Women in America

One 500 level course (3 hours) (HST 590 does not meet this requirement.)

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

See additional information for students seeking department’s recommendation for student teaching.

Survey Courses (12 hours)
- HST 101 and HST 102: Western Civilization
- HST 111 and HST 112: American History

Historiography and Methods (6 hours)
- HST 301: The Craft of History
- HST 400: History for Secondary Schools

U.S. Social History (3 hours from the following)
- HST 320: United States Social History to 1865
- HST 321: United States Social History since 1865
- HST 323: History of Native Americans
- HST 324: African-American History to 1915
- HST 325: African-Americans in Twentieth Century America
- HST 326: Women in America

Non-Western or Third World History (3 hours from the following)
- HST 362: Latin American Revolutions: Mexico, Cuba and Central America
- HST 369: Traditional China
- HST 370: Modern China
- HST 376: East/Central Africa: Issues
- HST 378: South Africa
- HST 379: Race, Class and Power: South Africa in the 20th Century
- HST 382: History of Israel
- HST 392: Global Perspectives on Non-Western History
- HST 566: Seminar in Contemporary Asia
- HST 569: China and the West

Total: 24 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 HST 566 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.

Additional information for students seeking the Department’s recommendation for Student Teaching.

A. For majors and minors 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. 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.

3. Both majors and minors must complete a department student teaching evaluation form. In addition, students must furnish transcripts showing all history course credits.

4. 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.

5. The department recommends that students planning to teach history in secondary schools major in history.

6. The North Central Association requires social studies teachers to have completed 24 hours in coursework appropriate to their teaching assignments.

B. For majors and minors 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. 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.

3. Both majors and minors must complete a department student teaching evaluation form. In addition, students must furnish transcripts showing all history course credits.

Military Science and Leadership (MSL)
For information, please contact Gregg A. Mays, chairperson, 774-3049, Finch 111

Why Study Military Science and Leadership?
The Department of Military Science is home to “America’s best leadership development program”—Army Reserve Officer’s Training Corps (ROTC). Our curriculum and faculty are completely focused on the students and their development as world-class leaders. Through completing our curriculum, students qualify to become Army Officers and lead in one of America’s most respected professions.

- Military Science academic programs are open to all students, without any obligation for military service.
- The program helps students to acquire leadership and management skills that make them a sought after commodity in the civilian job market.
- The department has integrated its efforts with the CMU Leadership Institute, contributing to the CMU Board of Trustees’ goal to make CMU the “premier center for leadership development in the Mid-American Conference, and among the best in the nation.”
- Emphasis is placed on strengthening values and ethical leadership. Students develop their mental, physical and emotional capabilities. They also develop their conceptual and interpersonal skills. Finally, they learn how to communicate effectively; make good decisions; motivate others; plan, execute and assess operations; develop and build teams; and improve themselves and the organizations they lead.
- It is the most comprehensive leadership development program in the nation.

Military Science at CMU
The Military Science/ROTC program is one of the best leadership development programs in the nation, committed to attaining a national ranking. The focus of the program is leadership development, the curriculum supports all degree programs at CMU. All organizations, in all career fields, are looking for proven leaders.

- Our curriculum is fun, challenging, exciting and relevant. Classroom instruction moves quickly from lecture to group discussions, practical exercises, and hands-on experiences that support learning.
- All classes include student-led Leadership Labs, which are hands-on and consist of training such as: rappelling, rock-climbing, high-ropes course, marksmanship, water survival, orienteering, map reading, first aid, weapons, drill, squad tactics, patrolling, and team-building exercises.
- Upper level courses include a leadership practicum where students apply the leadership lessons they learned in the classroom to real life, by filling leadership positions within the Corps of Cadets.
- The Military Science program offers leadership internships both in-state and around the world; basic and advanced leadership camps; leadership development training at the United States Military Academy and in the United Kingdom; leadership training at the Army’s most challenging schools, such as Airborne, Air Assault, SCUBA, Northern Warfare, and Mountain Warfare.

The majority of the program’s activities are planned, organized, prepared, executed and assessed by student leaders of the Corps of Cadets. The leadership potential of a student is developed through formal leadership assessments and feedback, mentorship, and whole-student counseling.

Admission, Retention, and Termination Standards.

- 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.
- 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.
- 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.

Career Options
Your experience in the Military Science program provides you with the skills that Fortune 500 companies aggressively seek—proven leadership. Besides your unmatched development as a leader, if you also choose to become an officer, you will expand your breadth and depth of acquired skills, opening up myriad opportunities for future employment.

- Junior military officers are scouted by employment head-hunters. Officers have priority for hiring for government jobs, and many organizations and universities give preference to military officers.
- Nationwide, graduates of ROTC fill high positions in all branches of government (administrative, judicial and legislative), businesses, non-profit organizations, universities, and professional sports.
- The CMU program has produced numerous presidents/CEOs, vice-presidents of Dow Chemical and Merrill Lynch, justices, professors, general officers, and leaders in national security organizations.
- The Army has 16 exciting and high tech career fields to choose from that directly relate to the civilian sector, some of which are aviation, medical service, engineering, intelligence, security, law enforcement, information technology, human resources, finance and distribution management.
The program supports lateral entry into America’s most elite organizations, like the State Department, Federal Bureau of Investigation (FBI), Central Intelligence Agency (CIA) and the Secret Service.

Students who choose to serve as officers in the active Army can rejoin the civilian sector after four years of service. Students who choose to serve in the National Guard or Reserves have the ability to work anywhere they want, in whatever civilian profession they choose, or to pursue a graduate degree.

**Academic Programs**

Military Science instructors are committed to excellence in teaching and learning. The department has been recognized as one of the top programs at CMU in the area of assessment. Students receive credits for each Military Science course. The Military Science department offers two programs:

- The Commissioning Program courses are taken along with your academic degree program courses. Students who desire to become army officers receive their commission upon completing both their degree requirements and the military science curriculum. The military science curriculum consists of one class and weekly Leadership Lab each semester for eight semesters in progressive order. Latecomers and graduate students may make up the first four semesters of the curriculum by attending the month-long Leadership Training Camp during the summer, or in a variety of other ways. All students seeking commissions as officers attend the month-long Leader Development and Assessment Course (LDAC), which is normally completed during the summer prior to a student’s last year of school.

- The Minor in Military Science is designed to provide an interdisciplinary education in military science and leadership. The foundations for this minor are the advanced military science courses and a course in military history. This foundation is supplemented by elective studies in cultures, politics, geography, constitutional history and law, public relations, international relations, foreign policy and religion.

**Army ROTC Scholarships**

Student scholarships and other financial aid packages range from $10,500 to $16,600 dollars per year. These financial benefits will allow you to focus on excellence in the classroom, as well as engage in extracurricular activities that are an important part of your overall college experience.

- Incoming freshmen may compete for four-year scholarships worth $10,200 per year, which provide tuition, fees, book allowance and monthly spending money, by applying on-line at armyrotc.com, and then following up with an on-campus interview. Four-year scholarship students may also receive a matching room and board scholarship from CMU worth an additional $6,100 per year (see below).

- Students already on campus may compete for two-, three-, and four-year scholarships worth $10,200 per year, which provide tuition, fees, book allowance and monthly spending money, by applying at our office in Finch 111.

- Students may simultaneously enroll in both our program, and the Army National Guard or Army Reserves. There are substantial benefits to participating in this program, including Leadership Internships, obtaining training in one of 212 marketable job skills, the most lucrative financial aid packages worth $17,800 per year, and guaranteed duty in the Reserves.

- Students may also compete for non-Army scholarships worth $1,000–$2000 each, made available through supporters of CMU’s Army ROTC program.

There are numerous other national-level scholarships made available through corporations and endowments available exclusively to participants of Army ROTC programs.

Additional ROTC scholarship information may be obtained by contacting personnel of the Military Science Department at 774–7440/3049.

**Reserve Officers’ Training Corps (ROTC) Scholarship**

Established in 1993 by CMU to provide six room and board awards on an annual basis to high school seniors winning three-year Advance Designee or four-year ROTC Scholarships.

**Minors**

**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, Leadership, and Military History with electives concentrating on constitutional, international, and other issues. The Minor is open to all students; there is no military obligation.

**Required Courses (19 hours):**

- MSL 301 (4) Leadership and Problem Solving
- MSL 302 (4) Leadership and Ethics
- MSL 401 (4) Leadership and Management
- MSL 402 (4) Officership
- HST 312 (3) American Military Experience

**Electives (9 hours):** *Nine hours selected from the following courses in consultation with minor advisor. Other electives may be substituted with advisor’s approval.*

- GEO 121 (3) Cultures of the World
- GEO 345 (3) Political Geography
- GEO 346 (3) Geography of the Developing World
- HST 303 (3) U.S. Constitutional History
- JRN 350 (3) Public Relations Principles and Practices
- PSC 105 (3) Introduction to American Government and Politics
- PSC 151 (3) The U.S. and the World
- PSC 351 (3) International Relations
- PSC 453 (3) American Foreign Policy
- REL 101 (3) World Religions: An Introduction to the Study of Religion
- REL 130 (3) Religion in America

**TOTAL:** 28 semester hours

**Faculty:** James P. Blick, William R. Humes, Daniel M. Maloney, Gregg A. Mays, Sean Harris
Philosophy & Religion

Philosophy and Religion are complementary disciplines which study human thought and culture from distinct points of view. Both disciplines study ethical and cultural issues and form part of the core of a liberal education. Each not only provides training for graduate study in its respective discipline, but provides an excellent basis for further professional training in fields which require critical and interpretive skills.

Why Study Philosophy?

Philosophy is the study of fundamental questions about the nature of reality, knowledge, and value. These are questions that everyone asks: What am I? Do I have free will? How can we distinguish good from bad or right from wrong? Can we be sure that any of our beliefs are true? Philosophers examine answers to these questions systematically and critically. Philosophy is also very effective in developing the student's ability to reason clearly, to distinguish good from bad arguments, to navigate through a complicated maze of questions, and to use intelligence and logic in situations often ruled by emotions. Students who have taken a large number of philosophy courses excel in entrance exams to graduate and professional schools. The thinking skills you will develop in your philosophy classes will give you the kind of analytic ability sought by employers in many professions.

Why Study Religion?

The academic study of religion is a comparative exploration of the beliefs, sacred stories, rituals, and community structures of the world’s religions. It helps students analyze the relationships between religion and social issues. Students of religion also investigate the influence of religion in their own and other cultures and gain understanding of how people around the world confront ultimate problems (such as death and evil). Studying religion is a way to gain research skills, writing skills, and critical thinking skills that will serve you throughout your life in a wide variety of careers or in graduate school. A survey of CMU alumni with majors and minors in Religion revealed that 75% had pursued graduate education, and that half of these had earned one or more graduate degrees.

Philosophy at CMU

The Philosophy area offers a variety of courses that both make students aware of fundamental philosophical issues such as those about moral and other values, but at the same time strengthen their critical powers and enable them to evaluate better their own beliefs as well as those of other people. Some coursework in this area can benefit students no matter what their field of study.

A major in philosophy is recommended, not only for graduate work in this area, but also as an excellent preparation for law school. A minor in philosophy is recommended to complement many other majors. A number of philosophy courses are related to specific disciplines including: Philosophy of Science, Philosophy of Language, Philosophy of Art, Political Philosophy, Philosophy of Mind, Philosophy of Religion, Philosophy of Literature, Business Ethics, and Ethics in Health Professions. Courses in the history of philosophy provide a valuable supplement to courses in the History Department.

Religion at CMU

CMU’s Religion courses are recommended for those seeking deeper insight into the culture of the United States and a wider familiarity with cultures around the world. The Religion area offers courses in Buddhism, Judaism, Christianity, and Islam; in the religious traditions of China, Japan, India, and the U.S.; and in biblical studies, ethics, and the relationship between religion and contemporary society. Most Religion courses fulfill a UP requirement.

A major in religion is recommended for any student seeking an area of concentration within the liberal arts, including those wishing to pursue graduate study in religion, theology, or a related field. A minor (or second major) in religion helps prepare students for careers in journalism, broadcasting, psychology, and other areas.
Philosophy Major

B.A.; B.S. degrees

Required Courses (21 hours)
- PHL 100 (3) Introduction to Philosophy
- PHL 140 (3) Introduction to Logic
- PHL 200 (3) History of Philosophy: Classical Period
- PHL 218 (3) Ethical Theory
- PHL 302 (3) History of Philosophy: Modern Period
- PHL 320 (3) Theory of Knowledge
- PHL 490 (3) Senior Seminar

Electives (12 hours)
At least six hours must be chosen from the following list:
- PHL 225 (3) Foundations of Cognitive Science
- PHL 325 (3) Philosophy of Mind
- PHL 340 (3) Intermediate Logic
- PHL 390 (3) Philosophy of Science
- PHL 405 (3) Major Philosophers
- PHL 410 (3) Philosophy of Law
- PHL 418 (3) Advanced Moral Philosophy
- PHL 422 (3) Political and Social Philosophy
- PHL 426 (3) Feminist Theory
- PHL 480 (3) Philosophy of the Arts

Other electives are to be chosen in consultation with a department advisor. Philosophy majors planning on going to graduate school in philosophy are encouraged to take PHL 340.

NOTE: Philosophy courses taken on a Credit/No Credit basis may not be applied toward a philosophy major.

TOTAL: 33 semester hours

Religion Major

B.A.; B.S. degrees

The major in religion consists of at least 30 hours and includes the following:

1. One course (3 hours) in the study of religion and contemporary society to be chosen from:
   - REL 140 (3) Religion, Race and Discrimination in America
   - REL 207 (3) Women in Religion

2. Two courses (6 hours) that concentrate on the study of religions other than Christianity in historical and cultural frameworks. Choose one course from each of these two groups:
   a. Area studies
      - REL 220 (3) Religious Traditions of China
      - REL 221 (3) Religious Traditions of Japan
      - REL 222 (3) Religious Traditions of India
   b. Traditions
      - REL 314 (3) Islam
      - REL 315 (3) Judaism
      - REL 320 (3) The Buddhist Tradition

3. One course (3 hours) on the Bible or Christianity, to be chosen from:
   - REL 250 (3) The Old Testament and Its Age
   - REL 260 (3) The New Testament and Its Age
   - REL 313 (3) Christianity

4. REL 501 (3) Seminar in the Study of Religion

5. REL 505 (3) Research Seminar

6. 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.

(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)

Total: 30 semester hours

Philosophy Minor

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

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.

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:

1. REL 501 (3) Seminar in the Study of Religion

2. 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.

(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, including a concentration in Public Administration in the Master of Science in Administration.

The basic fields in political science are covered in the following departmental courses:

1. **American National Political Institutions and Processes**: PSC 101, 105, 125, 224, 235, 300, 301, 320, 321, 323, 325, 326, 327, 421, 422, 520.


3. **International Relations**: PSC 150, 151, 351, 352, 453, 551, 555.


6. **Methodology**: PSC 280, 583.

**Notes**: 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.
Majors

Political Science Major
B.A.; B.S. degrees

A political science major consists of 33 hours, including PSC 100 (3) Introduction to Political Science, PSC 105 (3) Introduction to American Government and Politics, PSC 280 (3) Introduction to Empirical Methods of Political Research. A minimum of 15 hours of coursework must be at the 300 level or above, with at least one course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement. Students must choose between the General Political Science Major, the Public Administration Concentration or the International Relations/Comparative Politics Concentration. The student is required to take a minimum of three hours in four of the following five fields: 1. American National Political Institutions and Processes; 2. American State and Local Government, Public Administration and Policy; 3. International Relations; 4. Comparative Politics; 5. Political Theory. It is recommended that all political science majors enroll in PSC 280 during their sophomore year.

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.

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.

Distribution Requirements (12 hours)

Electives (12 hours)
Note: A minimum of 15 hours of coursework must be at the 300 level or above, with at least one course at the 400-500 level. PSC 405 cannot be used to fulfill this requirement.

Total: 33 semester hours
Beyond the general major in political science there are two concentrations: one in International Relations/Comparative Politics and one in Public Administration.

International Relations/Comparative Politics Concentration
Required Courses (12 hours):
- PSC 105 (3) Introduction to American Government and Politics
- PSC 280 (3) Introduction to Empirical Methods of Political Research

Electives (18 hours):
- 6 hours from PSC 320, 321, 323, 327 and 421
- 3 hours from PSC 275 or 375
- 9 hours from the following International Relations and Comparative Politics courses (6 hours from one of the areas below and 3 hours from the other area):

International Relations - PSC 352, 453, 551, 555
Comparative Politics - PSC 340, 341, 342, 343, 344, 347, 348, 350

Total: 30 semester hours

Public Administration Concentration
Required Courses (18 hours):
- PSC 100 (3) Introduction to Political Science
- PSC 105 (3) Introduction to American Government and Politics
- PSC 210 (3) Introduction to Public Administration
- PSC 280 (3) Intro. to Empirical Methods of Political Research
- PSC 313 (3) Budgetary Processes in the U.S.
- PSC 411 (3) Public Sector Human Resources and Organization Theory

Electives (12 Hours):
One course in American Political Institutions and Processes.
Two courses in International Relations and Comparative Politics.
One course in Political Theory and Methodology.

Capstone Experience (3 Hours):
PSC 395 (3) Internship in Government and Politics
Required for students without any relevant PA experience. Student must have completed 56 hours or more.
OR PSC 390 (3) Independent Study
Students with previous relevant PA experience may select an Independent Study with permission of the Internship Director.

Total: 33 semester hours

Minors

Political Science Minor
B.A.; B.A.A.; B.S. degrees

A political science minor consists of no fewer than 20 hours, including PSC 105 (3) Introduction to American Government and Politics, and three hours in each of the three following fields: I) American Political Institutions and Processes, II) International Relations and Comparative Politics, III) Political Theory and Methodology.

Public Administration Minor
B.A.; B.A.A.; B.S. degrees

Required Coursework (15 hours):
- PSC 105 (3) Introduction to American Government and Politics
- PSC 210 (3) Introduction to Public Administration
- PSC 280 (3) Intro. to Empirical Methods of Political Research
- PSC 313 (3) Budgetary Processes in the U.S.
- PSC 411 (3) Public Sector Human Resources and Organization Theory

Electives (6 hours) selected from the following:
- PSC 261 (3) State and Local Government
- PSC 320 (3) The American Legislative Process
- PSC 395 (3) Internship in Government and Politics

Total: 21 semester hours

Public Affairs Minor

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

The faculty: Joyce Baugh, Edward Clayton, John Dinse, Moataz Fattah, James P. Hill, David Jesuit, Sterling Johnson, Rick Kurtz, Martha Logsdon, Christopher Owens, Won Paik, Orlando Pérez, Delbert Ringquist, Vidu Soni, Lawrence Sych
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 prepare for a career in psychology or to acquire skills that will improve your performance in other careers, such as business or teaching. 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 or minor in psychology, you should come to the Psychology Department office in Sloan Hall to be assigned a faculty advisor and obtain a copy of the department’s Advising Handbook. After reading the Advising Handbook, you should consult with the advisor regarding the courses that would be most appropriate for you. When meeting with your advisor, you should bring the following materials: your personal educational record, the Advising Handbook, and the CMU Bulletin that you are following.

To supplement faculty advising, Psi Chi, the national psychology honorary, offers evening meetings during the academic year dealing with general issues for any student considering a psychology major or minor and describing volunteer opportunities in human service settings in the Mt. Pleasant area. Times and dates of Psi Chi meetings are posted in Sloan Hall.

Post-Graduation Plans. Though no one can guarantee what opportunities will be available to you upon graduation, you are probably interested in knowing what paths are followed by students who obtain a bachelor’s degree in psychology. Many graduates elect to go on to graduate school in psychology or in a related discipline, such as social work or counseling. Other graduates enter the labor market, generally in either human service jobs or business-related jobs. Examples of human service jobs include probation officer, case worker in a social service agency, psychiatric aide in a psychiatric hospital, houseparent in a residential treatment facility for emotionally disturbed adolescents, and many others. Examples of business-related job areas include consumer research, personnel and management.

Credit Restrictions. On a psychology major, only PSY 100 may be taken on a Credit/No Credit basis. On a psychology minor, any course may be taken on a Credit/No Credit basis.

There are also restrictions on the number of credits of certain courses (namely, courses with unspecified content) which can count towards a major/minor. Specifically, for the following courses - PSY 200 Special Issues, PSY 400 Special Issues, PSY 496 Directed Research, PSY 497 Independent Study, PSY 498 Undergraduate Honors Thesis in Psychology, PSY 500 Special Issues, PSY 501 Workshop, and PSY 502 Teaching Assistant in Psychology, - the total number of credit hours shall be limited to nine hours counting towards the major or six hours counting toward the minor. No more than three hours of any one of these courses can count towards a major or a minor. (See course descriptions in the current CMU Bulletin for the maximum number of allowable credits that can be counted toward graduation for individual courses.)

Prerequisites. PSY 100 (or an equivalent course transferred in from another school) is a prerequisite for all other psychology courses except PSY 334. Course descriptions later in this Bulletin list other prerequisites. Recommended courses are not required, but are listed in the course descriptions to provide information on important background materials.
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.

Four courses are specifically required on this major:
PSY 100 (3) Introduction to Psychology
PSY 211 (3) Introduction to Psychological Statistics
OR STA 282 (3) Introduction to Statistics
OR STA 382 (3) Elementary Statistical Analysis
(If STA 282 or STA 382 is used, an additional three (3) hours of psychology must be taken.)
PSY 285 (3) Research Methods
PSY 385 (3) Applications of Research Methods
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 coursework at CMU.

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. On this major, you must complete 39 semester hours of PSY courses, including the following:
PSY 100 (3) Introduction to Psychology
PSY 211 (3) Introduction to Psychological Statistics
OR STA 282 (3) Introduction to Statistics
OR STA 382 (3) Elementary Statistical Analysis
(If STA 282 or STA 382 is used, an additional three (3) hours of psychology must be taken.)
PSY 220 (3) Developmental Psychology
PSY 285 (3) Research Methods
PSY 330 (3) Social Psychology
PSY 383 (3) Learning and Memory
PSY 385 (3) Applications of Research Methods
PSY 387 (3) Behavioral Neuroscience
PSY 409 (3) History and Systems

In addition, you MUST select one course from the following list:
PSY 250 (3) Abnormal Psychology
PSY 310 (3) Psychological Testing
PSY 336 (3) Industrial/Organizational Psychology
PSY 340 (3) Studies in Personality

And you MUST select one course from the following list:
PSY 382 (3) Perception
PSY 384 (3) Behavior Analysis
PSY 583 (3) Motivation and Emotion
PSY 589 (3) Cognitive Psychology
This leaves you with six hours of psychology electives; these hours should be selected in consultation with your advisor. You must complete a minimum of 15 hours of psychology coursework at CMU.

Neuroscience Major
B.S. degree
This is an interdisciplinary major. Please check the index for the page number.

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

Minors
General Minor
B.A.; B.A.A.; B.F.A.; B.S.; B.S. in B.A.
A minor in psychology requires a minimum of 21 semester hours of PSY courses and must include PSY 100 (Introduction to Psychology). You must complete a minimum of 9 hours of psychology coursework 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.

The faculty. Renee Babcock, Richard Backs, Terry A. Beehr, Sharon Bradley-Johnson, Neil Christiansen, Stephen Colarelli, Gary L. Dunbar, Rachel A. Foster-Lifson, Bryan Gibson, Kyunghee Han, Timothy S. Hartshorne, Michael Hixson, Susan Jacob, Melvyn M. Jaffa, Carl M. Johnson, Michael A. Kent, Terry M. Libkuman, Elizabeth Meadows, John S. Monahan, Sandra Morgan, Larissa Niec, Justin Oh-Lee, Hajime Otani, Debra Poole, Stuart Quirk, Mark Reilly, Katrina Rhymer, Catherine Riordan, George Ronan, Michael Sandstrom, Tamara Penix Sbraga, Sonya Sheffert, Reid Skeel, K. Roger Van Horn, Stephen Wagner, Nathan Weed, Todd Zakrjasek
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 of the 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.

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 culture patterns of many areas of the world.
3. To enhance the professional effectiveness of the student entering occupations in which the 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.

**Admission, Retention, and Termination Standards**

**Sociology Major, B.A. and B.S. Degrees.**
1. SOC 300 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 300 and in SOC 301.
3. No more than three hours of coursework 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 coursework with an ANT or SWK designator may be taken as part of the sociology major.

**Sociology Major - Social and Criminal Justice Concentration (SOC)**
1. SOC 300 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 300 and in SOC 301.
3. No more than three hours of coursework can be taken on a Credit/No Credit basis for the 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.

**Sociology Minor - B.A., B.A.A., B.S., B.S. in B.A. degrees**
1. SOC 300 and SOC 301 cannot be taken on a Credit/No Credit basis. A grade of C (2.0) or better must be earned in SOC 300 and in SOC 301.
2. No more than nine (9) hours of coursework can transfer to the Sociology Minor from another institution.

**Anthropology Major, B.A. and B.S. degrees**
1. No more than six hours taken on a Credit/No Credit basis may be counted toward the anthropology major.
4. Students intending to apply to the social work program should make

3. Admission to the Social Work Program (signing a major) optimally

2. A minor in Social Work is not available.

Social Work Major - B.S.W. degree

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.

10. Submission of an official transcript from CMU and all prior post-

9. Submission of two signed Academic Reference Forms, completed and signed by the student’s supervisor. (The pre-approval and reference forms may be obtained from the social work program office.) Fifty (50) hours of the 100 hours must be completed by the admissions application deadline and documented with a Supervisor Reference Form, but if the 100 hours are not completed by that date, admissions to the program may be made contingent upon completion of the 100 hours and submission of a second satisfactory Supervisor Reference Form 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.)

7. Documentation of 100 hours of PRE-APPROVED volunteer or paid work experience of a helping nature and submission of a satisfactory Instructor Reference Form, completed and signed by the student’s supervisor. 

6. Completion of at least 6 hours of the 15 hours of required sociology (SOC) 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.

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 applications is received.

4. 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.

2. Completion of the Freshman Composition component of the Written English Competency Requirement by the end of term in which the admissions application is received. Students are strongly encouraged also to complete the Advanced Composition Requirement of the Written English Competency Requirement.

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 end of the term in which the admissions application is received.

Procedures for Signing a Major and Admission to Social Work Program

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.

Social Work Major - B.S.W. degree

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.

10. Submission of a BSW Program Application for Admission to the Major. A Personal Interests Statement is required as part of the Application, and should address the questions outlined in the Application. (This Application 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 October 24 for the fall admissions cycle or on or before March 1 for the annual Spring admissions cycle.

Upon completion of a student's admission application file, a faculty interview will be scheduled with the student. The recommendations of the faculty interview and other application materials will be considered and an admissions decision will be made by the Admissions and Academic Progress Review Committee. The committee consists of the Director of the Social Work Program, the Director of Field Education, and one additional faculty member with an appointment of .50 or higher, elected by social work faculty. The Admissions and Academic Progress Review Committee reserves the right to admit students who may be deficient in one area above. Admissions decisions will be made in January for the Fall admissions cycle, and by May for the Spring admissions cycle. Applicants will be notified of decisions in writing.

NOTE: Completion of all steps of the admissions process does not ensure that the student will be admitted to the BSW program. If an applicant is denied admission, the applicant is encouraged to 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.

Majors and Minors

Sociology Major

B.A.; B.S. degrees

Required Courses (18 hours):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOC 100</td>
<td>Introductory Sociology</td>
</tr>
<tr>
<td>SOC 200</td>
<td>Introduction to Social Research and Analysis</td>
</tr>
<tr>
<td>SOC 201</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>SOC 221</td>
<td>Social Problems</td>
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<tr>
<td>OR SOC 302</td>
<td>Social Inequality</td>
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<tr>
<td>SOC 301</td>
<td>Sociological Theory</td>
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<tr>
<td>OR SOC 501</td>
<td>Development of Sociological Theory</td>
</tr>
<tr>
<td>SOC 350</td>
<td>Social Research Methodologies</td>
</tr>
</tbody>
</table>

Electives (15 hours)

Group A: Inequalities (at least 3 hours):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 302</td>
<td>Social Inequality</td>
</tr>
<tr>
<td>SOC 317</td>
<td>Sociology of Sex and Gender</td>
</tr>
<tr>
<td>SOC 323</td>
<td>Racism and Inequality</td>
</tr>
<tr>
<td>SOC 326</td>
<td>Inequalities and Justice Processes: Race, Class and Gender</td>
</tr>
<tr>
<td>SOC 502</td>
<td>Theories of Race Relations</td>
</tr>
</tbody>
</table>

Group B: Institutions (at least 3 hours):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>SOC 210</td>
<td>Sociology of Science and Technology</td>
</tr>
<tr>
<td>SOC 311</td>
<td>Sociology of Education</td>
</tr>
<tr>
<td>SOC 312</td>
<td>Sociology of Health and Illness</td>
</tr>
<tr>
<td>SOC 403</td>
<td>Political Sociology</td>
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<tr>
<td>SOC 411</td>
<td>The Family</td>
</tr>
<tr>
<td>SOC 413</td>
<td>Work and Careers in America</td>
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<tr>
<td>SOC 512</td>
<td>Industrial Sociology</td>
</tr>
<tr>
<td>SOC 524</td>
<td>Sociology of Law</td>
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</tbody>
</table>
Sociology, Anthropology, and Social Work

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

Required Courses (9 hours):
SOC 100 (3) Introductory Sociology
SOC 300 (3) Introduction to Research Methods
SOC 301 (3) Sociological Theory

Advanced Coursework with Theory and Methods as Prerequisites (3 hours):
SOC 304 (3) Collective Behavior
SOC 403 (3) Political Sociology
SOC 413 (3) Work and Careers in America
SOC 422 (3) Youth Welfare
SOC 423 (3) Society and Mental Illness

Note the limitation on the number of hours of ANT or SWK courses that appear in both Group A and Group C or in both Group B and Group C 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 Group A, Group B, and/or Group C 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.

Total: 33 semester hours

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

American Ethnic Studies Minor
B.A.; B.S.; B.A.A. degrees

Required Courses (18 hours):
SOC 323 (3) Racism and Inequality
SOC 502 (3) Theories of Race Relations in Sociology

b. Anthropology and Sociology (12 hours):
ANT 320 (3) North American Indian Cultures
ANT 365 (3) Current American Indian Issues
ANT 368 (3) Hispanic Cultures in the U.S.
ANT 505 (3) Applied Anthropology
SOC 302 (3) Social Inequality
SOC 307 (3) Social Movements, 1960s to the Present

Elective Courses (6 hours) selected from the courses listed below in consultation with an advisor.
ENG 328 (3) Literature of North American Indians
ENG 329 (3) African-American Literature
ENG 582 (3) Cultural Pluralism in Young Adult and Children's Literature
HST 323 (3) History of Native Americans
HST 324 (3) African-American History to 1915
HST 325 (3) African-Americans in Twentieth Century America
PSC 125 (3) American Politics
PSY 533 (3) Psychology of Racism
REL 240 (3) African-American Religion
OR REL 342 (3) From Spirituals to Gospel

Total: 24 semester hours

Required Courses (18 hours):
SOC 100 (3) Introductory Sociology
SOC 300 (3) Introduction to Research Methods
SOC 301 (3) Sociological Theory

Additional Required Courses (21 hours):
SOC 200 (3) Introduction to Social Research and Analysis
SOC 221 (3) Social Problems
SOC 302 (3) Social Inequality
SOC 303 (3) Social Research Methodologies
SOC 501 (3) Development of Sociological Theory
SOC 502 (3) Theories of Race Relations in Sociology

Elective Courses (3 hours):
SOC 304 (3) Collective Behavior
SOC 403 (3) Political Sociology
SOC 413 (3) Work and Careers in America
SOC 422 (3) Youth Welfare
SOC 423 (3) Society and Mental Illness

SOC 301 (3) Sociological Theory
SOC 300 (3) Introduction to Research Methods
SOC 100 (3) Introductory Sociology

Group C: Advanced Coursework with Theory and Methods as Prerequisites (3 hours):
SOC 304 (3) Collective Behavior
SOC 403 (3) Political Sociology
SOC 413 (3) Work and Careers in America
SOC 422 (3) Youth Welfare
SOC 423 (3) Society and Mental Illness
SOC 502 (3) Theories of Race Relations in Sociology
SOC 507 (3) Class and Poverty in America
SOC 512 (3) Industrial Sociology
SOC 515 (3) Custodial Institutions
SOC 521 (3) Advanced Study of Deviant Behavior
SOC 523 (3) Community Corrections and Alternative Sentencing
SOC 524 (3) Sociology of the Law
SOC 526 (3) Police and Community Relations
SOC 527 (3) Alternative Dispute Resolution in Justice Systems

Courses that appear in both Group A and Group C or in both Group B and Group C 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 Group A, Group B, and/or Group C 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.

Total: 33 semester hours
Anthropology

Courses in anthropology are offered in three subfields:

A. Cultural and Social Anthropology: ANT 170, 200, 321, 322, 324, 326, 365, 368, 370, 428, 451, 457, 459, 505, 506, 520, 590.

B. Physical Anthropology: ANT 171, 173, 244, 342, 347, 351, 356

C. Archaeology: ANT 174, 175, 240, 340, 344, 426, 500

Anthropology Major

B.A.; B.S. degrees

Required Courses (13 hours):

ANT 170 (3) Cultural Anthropology
ANT 171 (3) Physical Anthropology
ANT 174 (3) Introduction to Prehistoric Archaeology
ANT 426 (3) Method and Theory in Archaeology

Electives (18 hours):

Electives must include one additional course each from Group A, Group B, and Group C. 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

Required Courses (9 hours):

ANT 170 (3) Cultural Anthropology
ANT 171 (3) Physical Anthropology
ANT 174 (3) Introduction to Prehistoric Archaeology

Electives: 15 hours to be selected with an anthropology advisor. Up to three hours of coursework in sociology (SOC) may be counted toward the minor in anthropology.

Total: 24 semester hours

Social Work Major

B.S.W. Degree

A major in Social Work consists of the following:

Required Courses (50 hours):

SWK 100 (3) Introduction to Social Work
SWK 250 (3) Social Welfare Policies and Services I
SWK 315 (3) Social Work Generalist Practice I: Social Work Communications
SWK 321 (3) Social Work Generalist Practice II
SWK 331 (3) Social Work Generalist Practice III
SWK 374 (3) Social Work and Human Behavior I
SWK 375 (3) Social Work and Human Behavior II
SWK 450 (3) Social Welfare Policies & Services II
SWK 470 (4) Social Work Practice cu I
SWK 480 (4) Social Work Practice cu II
SOC 100 (3) Introductory Sociology
SOC 200 (3) Introductory to Social Research and Analysis
SOC 201 (3) Social Psychology
PSY 330 (3) Social Psychology
SOC 221 (3) Social Problems
SOC 302 (3) Social Inequality
SOC 301 (3) Sociological Theory
SOC 501 (3) Development of Sociological Theory
SOC 350 (3) Social Research Methodologies

Electives (Optional):

SWK 300 (3) Crisis Intervention Experience
SWK 301 (3) Social Work and Law
SWK 302 (3) Social Work Practice in Gerontology
SWK 397 (1-12) Independent Study
SWK 399 (1-12) Special Topics in Social Work
SWK 510 (3) Social Work Generalist Practice and Human Sexuality

Total: 50 semester hours

*The student will enroll in these two courses consecutively within two years of completing the course prerequisites.

Youth Studies Minor

B.A.; B.S.; B.A.A.; B.S. in B.A. 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.

Required Courses:

Introduction (3 hours)
SOC 100 (3) Introduction to Sociology

Socialization and Peer Culture Sequence (6 hours)
SOC 425 (3) Sociology of Children
SOC 412 (3) Sociology of Adolescence

Institutional Focus (9 hours)
SOC 411 (3) Sociology of the Family
SOC 222 (3) Juvenile Delinquency
ANT 200 (3) Education and Culture
SOC 311 (3) Sociology of Education
SOC 422 (3) Advanced Issues in Juvenile Delinquency and Child Welfare

Developmental Course (3 hours)
HEV 110 (3) Oppression: Roots and Impact on Human Development in the United States
HEV 306 (3) Human Growth and Development: Adolescence
PSY 220 (3) Developmental Psychology
PSY 324 (3) Childhood and Adolescence
HST 221 (3) Growing up in America

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

Total (24 hours)*

*May include up to three (3) additional hours of prerequisite courses depending on the student’s choice of electives.

Introduction

The College of Science and Technology offers programs for students with interests in basic science as well as in the applied science, technology and mathematics areas. In addition, the College provides the basic and general education science and mathematics support for the entire university.

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

Graduates of the programs in the College have well-developed analytical thinking and problem solving skills. They are recruited for technical and administrative positions in industry, 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 and Ph.D. levels. Most departments of the College offer master-level curricula leading to advanced professional degrees through the College of Graduate Studies; the Department of Mathematics also offers a doctoral-level program in college teaching.

Mission Statement

The purpose of the college is to provide quality education in the scientific and technological fields, and to enable its students, faculty, and staff to engage in the creation and application of knowledge. The college is committed to the values associated with 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 180 faculty. Most fields of study lead to a major or minor, many with choices of emphasis and concentration. The departments and their primary fields of study are:

- **Biology** (Biology)
- **Chemistry** (Chemistry)
- **Computer Science** (Computer Science, Information Technology)
- **Geography** (Geography, Geographic Information Science)
- **Geology** (Geology)
- **Engineering and Technology** (Engineering, Industrial and Engineering Technology)
- **Mathematics** (Mathematics, Statistics)
- **Physics** (Astronomy, Physics)

See the index of this Bulletin for more information on each of the above programs. The staff of the College office can also help you locate the appropriate department and advisor.

Programs for Education Degrees

Seven of the departments in the College also offer majors and minors under the Bachelor of Science in Education degree. If you are interested in teacher certification, consult both the specific department of choice and the sections on teacher certification in this Bulletin.

Interdepartmental and Interdisciplinary Programs

The College is the home for many interdisciplinary and interdepartmental majors and minors. Some programs, such as the Computer Technology major, combine coursework from two departments while others, such as the Environmental Studies major, utilize the resources from 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.

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.
Combined and Accelerated Programs

Several departments offer programs in a time shortened format. For example, with proper advising and planning, the major in Physics on the B.S. Degree, Plan B, may be completed in three years. Check with a department advisor about such an option.

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 a summer’s worth of coursework in marine science. See the department descriptions for details.

Facilities

The College departments occupy all or parts of four building: Brooks, Dow, Pearce, and Industrial Technology. These building are connected to the campus-wide computer network and house department facilities that provide computer access for all majors and minors. Faculty and students make extensive use of computers for word processing and spreadsheets, electronic mail and data transfer, library services, and access to the Internet. Departments also provide computer services to their students for such things as computer programming and data acquisition and analysis. In addition, all students have access to the University computing facilities.

Modern research facilities are available to students in each department. These range from highly specialized laboratories such as those in nuclear magnetic resonance spectroscopy and state-of-the-art x-ray diffraction instruments. These laboratories are routinely utilized by undergraduates taking part in research programs.

Undergraduate Research and Internships

Students in the College should understand the value of career-related work experience and take advantage of such opportunities whenever possible. These experiences may be gained through department sponsored field studies, academic research, internships and summer employment. See your major or minor advisor to develop a plan of study that balances your course load with appropriate activities.

Student Organizations

In addition to university-wide extracurricular activities and honors organizations, the College supports many student chapters of professional organizations, honors societies, and service clubs. These organizations provide opportunities to understand the nature of a profession or the role of a professional society. Participation will help you prepare for a career and become better acquainted with other students, faculty, and working professionals.

Information about activities and organizations is available in department offices.

Science and Technology Residential College

The College of Science and Technology and the Office of Residence Life offer a limited number of students the opportunity to participate in a living-learning community. There is an emphasis on academics and connections with one’s discipline. Contact the college or the Office of Residence Life (989-774-3111) for further information.
Biology (BIO) (MAR)

For information, please contact Claudia Douglass, Chairperson, 774-3227, 217 Brooks Hall

Why Study Biology?
Biology is the science of life. Humans share life on Earth with up to 30 million other living forms, all of which belong to one complex and fragile ecosystem. The study of biology prepares the student to understand this complex ecosystem and our interactions with it. Biology is for those who are curious about living things and wish to learn scientific methods for observing and evaluating life processes. The student may eventually be involved in social and political decisions requiring biological understanding, as well as furthering scientific knowledge through occupations dealing with biological research, natural resource management, agriculture, human health, education and other endeavors. Undergraduate training in biology is good preparation for advanced study in subdisciplines of biology such as medicine, environmental science, physiology, microbiology, molecular biology, aquatic biology, conservation biology, ecology, animal behavior, and other areas of zoology and botany.

Biology at CMU
The Department of Biology at CMU offers programs which provide undergraduate students with a core of instruction, followed by an opportunity to study in a more specialized area of biology. In addition to recently upgraded state-of-the-art laboratories, the Department of Biology operates excellent field and laboratory facilities at the CMU Biological Station located on Beaver Island in northern Lake Michigan and a nature center in 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 the students use specialized equipment (including microscopes), chemicals and glassware. Students are also required to work with cultures of microorganisms and to maintain aseptic conditions. The required field experiences will introduce the student to a variety of habitats, including woodlots, fields, streams, lakes and marshes.

Natural Science minors, science minors, and science majors are directed to 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.

Non-Teaching Majors and Minors

Biology Major
B.A.; B.S. degrees

The Biology Department requires the following common core of courses for all biology majors (19 hours):

- BIO 101 (3) General Biology
- OR BIO 105 (3) Introductory Quantitative Biology
- BIO 203 (3) General Botany
- BIO 208 (3) Microbiology
- BIO 218 (3) General Zoology
- BIO 340 (3) Ecology
- BIO 326 (4) Genetics

Biology majors (except those on education programs or Medical Technology) must elect one of the four options below to supplement this common core of courses.

Pre-graduate/Pre-professional option is for students who plan to enter a graduate or professional school after graduation from CMU. Students selecting this option are required to take the following courses (7 hours) in addition to the required core courses:

- BIO 324 (3) Cell Biology
- BIO 391 (4) Plant Physiology
- OR BIO 392 (4) Mammalian Physiology

Biology electives: (16 hours) to be selected in consultation with a biology advisor. BIO 403 is recommended as an elective course.

Required Biology hours: 42

Additional requirements: 31-33 hours

- a. CHM 131 and 132; OR CHM 161 and 211 (8-9 hours)
- b. CHM 345, 346, and 349 (8 hours)
- c. PHY 130 and 131 (8 hours)
- d. MTH 132 OR MTH 136 (4-5 hours)
- e. BIO 500 OR STA 382 (3 hours) (If BIO 500 is elected, it may count toward the 42 hours required in BIO.)

Recommend: CHM 425, MTH 133, and CPS 110 OR 150

Total hours required for the Biology Major, Pre-graduate/Pre-professional option: 73-75 credit hours

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. Students selecting this option are required to take the following courses (20-21 hours) in addition to the required core courses:

(continued)
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 or GRE.

Introductory Courses
BIO 101P (3) General Biology
OR BIO 105 (3) Introductory Quantitative Biology
BIO 208 (3) Microbiology
BIO 218 (3) General Zoology

Intermediate Level Courses
BIO 324 (3) Cell Biology
BIO 326 (4) Genetics
BIO 392 (4) Mammalian Physiology
BIO 500 (3) Mammalian Physiology
BIO 539 (4) Mammalian Physiology
BIO 543 (3) Medical Parasitology
BIO 557 (3) Hematology & Immunohematology
CHM 523 (4) Clinical Chemistry
HSC 411 (3) Pathophysiology

Integrative Courses:
BIO 501 (3) Evolution
BIO 544 (4) Developmental Biology
BIO 580 (4) Medical Microbiology
BIO 591 (3) Neurophysiology

Capstone Experience
BIO 403 (3-4) Undergraduate Research
OR BIO 495 (1-4) Undergraduate Internship in Biology

Total Hours: 36-39

Required Cognates
CHM 131 (4) Introduction to Chemistry I
AND CHM 132 (4) Introduction to Chemistry II
OR CHM 161 (5) Principles of Chemistry
AND CHM 211 (4) Quantitative Analysis
CHM 345 (3) Organic Chemistry I
AND CHM 346 (3) Organic Chemistry II
CHM 349 (2) Introduction to Organic Chemistry Lab
CHM 425 (3) Introductory Biochemistry
OR CHM 521 (3) Biochemistry I (CHM 211 required as prerequisite)
AND CHM 522 (3) Biochemistry II
PHY 130 (4) College Physics I
AND PHY 131 (4) College Physics II
PHY 170 (1) College Physics Laboratory I
AND PHY 171 (1) College Physics Laboratory II
MTH 106 (3) Plane Trigonometry OR higher
Recommendations
Volunteering, job shadowing and/or work experience in the biomedical profession of the student’s choice is required for admission to many professional programs. The student should consult an advisor as to the hours required for admittance into a program within their area of interest. Proficiency in conversational Spanish is strongly recommended.

Total credit hours for the Biology/Biomedical Science Major: 68-75 Credit Hours

Biology/Medical Technology Major
B.S. degree
NOTE: CMU is currently NOT accepting students into this major.

The Biology/Medical Technology major provides a student with a background required for the clinical experience at an accredited hospital school of medical technology. Upon successful completion of the four-year program at CMU, a student will be awarded a B.S. degree, Major: Biology/Medical Technology. In addition, a one-year clinical experience will be required prior to being eligible to apply for certification as a Medical Technologist. CMU is affiliated with a number of schools of medical technology. (A current list is available from the Medical Technology Advisor). Arrangements for the clinical experience at other accredited schools is possible. The student, with the assistance of the Medical Technology advisor, is responsible for making arrangements for the clinical experience.

A chemistry minor for the Biology/Medical Technology Major is required. (Consult the Chemistry section of the Bulletin for courses).

Biology/Medical Technology majors are required to take the following Biology courses:

- BIO 101 (3) General Biology
  OR BIO 105 (3) Introductory Quantitative Biology
- BIO 208 (3) Microbiology
- BIO 218 (3) General Zoology
- BIO 326 (4) Genetics
- BIO 337 (4) Comparative Anatomy
- BIO 392 (4) Mammalian Physiology
- BIO 500 (3) Biological Statistics
- BIO 537 (4) Immunology
- BIO 543 (3) Medical Parasitology
- BIO 577 (3) Hematology and Immunohematology
- BIO 580 (4) Medical Microbiology

In addition, CPS 110 (3) OR 3 credits of CPS 106, 107, 108 or 109; MTH 132 (4), plus 10 hours of either PHY 130 (4), 131 (4), 170 (1), and 171 (1) OR PHY 145 (4), 146 (4), 175 (1), and 176 (1).

Total hours required for the Biology/Medical Technology Major: 55

Neuroscience Major
B.S. degree

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

Biology Minor
B.A., B.A.A., B.S. degrees

Biology minors are required to take the following courses:

- BIO 101 (3) General Biology
  OR BIO 105 (3) Introductory Quantitative Biology
- BIO 203 (3) General Botany
- BIO 208 (3) Microbiology
- BIO 218 (3) General Zoology
- BIO 326 (4) Genetics
- BIO 340 (3) Ecology

Five hours of additional biology courses to be selected in consultation with an advisor.

Total hours required for the Biology Minor: 24

Natural Resources Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.

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

Science Minor
B.A.; B.S.; B.S. in B.A. degree

This minor satisfies the science requirement for the Dietetics major and is administered by the Department of Biology.

Required Courses (18-22 hours)

- BIO 208 (3) Microbiology
- BIO 392 (4) Mammalian Physiology
- CHM 120 (4) Survey of Chemistry
  OR CHM 131 (4) Introduction to Chemistry I
  AND CHM 132 (4) Introduction to Chemistry II
- CHM 342 (4) Survey of Organic Chemistry*
- CHM 421 (3) Survey of Biochemistry**

Electives (2-6 hours)

To be selected from BIO or CHM to complete 24 hours.

* A student opting to take CHM 345 and CHM 346 instead of CHM 342 should have the equivalent of CHM 132 as a prerequisite.

** A student with CHM 345 and CHM 346 may elect CHM 521 and CHM 522 instead of CHM 421.

Total: 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 major. Please check the index for the page number.

Provisional Secondary Certification
Biology majors and minors on the Secondary Certification are required to complete, with at least a 2.7 grade point average, 26 or more hours of biology, 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

- BIO 101 (3) General Biology
- OR BIO 105 (3) Introductory Quantitative Biology
- BIO 203 (3) General Botany
- BIO 208 (3) Microbiology
- BIO 218 (3) General Zoology
- BIO 302 (2) Mid-tier Experience for Secondary Biology Teachers
- BIO 326 (4) Genetics
- BIO 340 (3) Ecology
- BIO 391 (4) Plant Physiology
- OR BIO 392 (4) Mammalian Physiology
- BIO 502 (3) Teaching Biology

Ten hours of additional 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.

Additional requirements are:
- a. CHM 120; or CHM 131 and CHM 132; or CHM 161 and CHM 211.
- b. CHM 342; or CHM 345, CHM 346 and CHM 349.
- c. CHM 421 or CHM 425; or CHM 521 and CHM 522.
- d. PHY 130 and PHY 131.
- e. BIO 500 or STA 282. (If a student elects BIO 500, it may count towards the 38 hours required in biology.)

Total hours required for the Biology Major: 60-72

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

- BIO 101 (3) General Biology
- OR BIO 105 (3) Introductory Quantitative Biology
- BIO 203 (3) General Botany
- BIO 208 (3) Microbiology
- BIO 218 (3) General Zoology
- BIO 326 (4) Genetics
- BIO 340 (3) Ecology
- BIO 391 (4) Plant Physiology
- OR BIO 392 (4) Mammalian Physiology
- BIO 502 (3) Teaching Biology

Total hours required for the Biology Minor: 26

Why Study Chemistry?

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. As appropriate, a student may prepare for graduate work in chemistry; prepare for graduate work in a related area such as pharmacology, polymer science, chemical engineering, molecular biology, business or computer science; prepare for entry into an industrial chemistry position in research and development, technical service chemical marketing, technical writing, patent preparation, product formulation, quality assurance, analysis, or other areas; prepare for entry into a professional program in medicine, dentistry, veterinary medicine, pharmacy, optometry, medical technology or the law; prepare to become a teacher of chemistry or the sciences; or earn a general liberal arts undergraduate degree with a major in chemistry. Many minor programs in chemistry also are available for students needing a concentration in chemistry to support a particular major or degree. In addition, a variety of service courses are provided for other degree programs within the university.

Chemistry 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 chemistry and mathematics experience.

Students for whom chemistry is a major, minor or degree requirement and/or demonstrate an aptitude for chemistry are encouraged to enroll in CHM 161 (5), Principles of Chemistry, an Honors offering. Other students for whom chemistry is a major, minor, or degree requirement are encouraged to enroll in 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 II-A of University Program requirements, or CHM 101 (3) Armchair Chemistry which satisfies the Group II-B requirement including laboratory, as do CHM 161 and CHM 131. CHM 120 meets the Group II-B 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.

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 (1-4) Seminar in Chemistry.

Students planning a major or minor program in chemistry should contact the appropriate departmental advisor by the end of the freshman year. Chemistry courses and their mathematics and physics 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. This accreditation is a result of rigorous examination by the society of our faculty, programs, library, and laboratory facilities.

All transfer students who wish to complete major or minor programs in chemistry must demonstrate proficiency by completing appropriate coursework 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.

Admission/Retention/Termination Standards

Standards for Chemistry major, B.S. in Ed. degree, Provisional Secondary Certification

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.
Standards for Chemistry minor, B.S. in Ed. degree, Provisional Secondary Certification

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.

Mathematics and Physics: The following courses are required for students desiring American Chemical Society certification: MTH 136 and 137 (or 132, 133, and 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.

For B.S. in Ed. degree, Provisional Secondary Certification:

1. CHM 505 (3) Teaching Chemistry-Physics in the Secondary School, taken concurrently with CHM 507 (1) Field Experience in Teaching Chemistry in the High School.

2. The department recommends that students planning to teach chemistry in secondary schools major in chemistry.

Total: 40 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

Chemistry Minor

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

Required Courses (17-20 hours):

- CHM 131 (4) Introduction to Chemistry I
- AND CHM 132 (4) Introduction to Chemistry II
- OR CHM 161 (5) Principles of Chemistry
- CHM 211 (4) Quantitative Analysis
- CHM 345 (3) Organic Chemistry I
- CHM 346 (3) Organic Chemistry II
- CHM 349 (2) Introduction to Organic Chemistry Laboratory

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 for the Biology/Medical Technology Major

B.A.; B.S. degrees

Required Courses (24-27 hours):

- CHM 131 (4) Introduction to Chemistry I
- AND CHM 132 (4) Introduction to Chemistry II
- OR CHM 161 (5) Principles of Chemistry
- CHM 211 (4) Quantitative Analysis
- CHM 345 (3) Organic Chemistry I
- CHM 346 (3) Organic Chemistry II
- CHM 349 (2) Introduction to Organic Chemistry Laboratory
- CHM 425 (3) Introductory Biochemistry
- CHM 523 (4) Clinical Chemistry

Total: 24-27 semester hours

Computer Science (CPS) (ITC)

For information, please contact Gongzhu Hu, Chairperson, 774-3774, 413 Pearce Hall

Why Study Computer Science or Information Technology?

The study of computer science can lead to such careers as applications programmer, systems programmer/analyst, computer communications specialist, database manager, and consultant. The field serves those students desiring general instruction in computer science, those interested in teaching the subject, and those who want to undertake advanced study of computer science at the graduate level. Information technology graduates will find a variety of career opportunities, including network administration, database administration, Web master, application system designer, multimedia specialist, and customer service technologist.

Computer Science at CMU

The Department of Computer Science offers a major and a minor in computer science, a major and minor in information technology, and an M.S. program in computer science. A major and minor leading to secondary school provisional certification is also available.

An interdepartmental major in computer science and mathematics is offered jointly with the mathematics department.

An interdepartmental major in cognitive science is offered in conjunction with the philosophy and the psychology departments.

Two interdepartmental majors, computer-integrated manufacturing and computer technology, are offered jointly with the Department of Industrial and Engineering Technology. Students desiring a computer science course for general education purposes should consider CPS 100, 110, or 120. The first course for CPS majors and minors is CPS 180. The first course for ITC majors and minors is CPS 110 or CPS 180.

The Department of Computer Science is concerned that students interested in computer science enroll in the courses which best meet their needs or interests. Students should come to the department office to be assigned an advisor.

Majors

Computer Science Major
B.A.; B.S. degrees

Required CPS Courses (27 hours):
- CPS 180 (3) Principles of Computer Programming
- CPS 181 (3) Introduction to Data Structures
- CPS 210 (3) Assembly Language and Computer Organization
- CPS 240 (3) Object-Oriented Programming
- CPS 340 (3) Advanced Data Structures and Algorithms
- CPS 360 (3) Computer Design and Architecture
- CPS 410 (3) Software Engineering
- CPS 450 (3) Programming Language Concepts
- CPS 470 (3) Introduction to Operating Systems

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

Required Mathematics and Statistics courses (13 hours):
- MTH 132 (4) Calculus I
- MTH 175 (3) Discrete Mathematics
- MTH 223 (3) Linear Algebra and Matrix Theory
- STA 382 (3) Elementary Statistical Analysis

Total: 49 semester Hours

Cognitive Science Major
B.A.; B.S. degree
This is an interdisciplinary major. Please check the index for the page number.

Computer 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

Core (24 hours):

Programming sequence (9 hours):

Either:
- CPS 110 (3) Information Technology Programming I
- ITC 111 (3) Information Technology Programming II
- CPS 280C (3) Alternative Programming Languages (C or C++)

OR
- CPS 180 (3) Principles of Computer Programming
- CPS 181 (3) Introduction to Data Structures
- CPS 280V (3) Alternative Programming Languages (Visual Basic)

Other core courses (15 hours):

- ITC 290 (3) Computer Hardware Concepts, Installation, Configuration and Support
- ITC 291 (3) Computer Software Concepts, Installation, Configuration and Support
- CPS 282 (3) Multimedia Technology
- ITC 341 (3) Introduction to Databases and Applications
- ITC 365 (3) Introduction to Data Communications and Computer Networks
Math Requirements (6-7 hours)

Cognate Requirements (9-10 hours):

Capstone Experience (3 hours):

Each student is required to select one track from the following list (6 hours):

- A. Data Communication and Networking
  ITC 455 (3) Network Administration and Security
  CPS 565 (3) Computer Networks

- B. Database
  ITC 441 (3) Database Administration
  CPS 541 (3) Databases

- C. Interactive Multimedia Design
  CPS 482 (3) Advanced Multimedia Design
  ITC 582 (3) Multimedia Systems

- D. Windows Application Development
  ITC 320 (3) Web-based Applications
  CPS 420 (3) Windows Programming

- E. Custom Track

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.

II. Additional 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 IT courses, courses from other IT tracks, or other areas of CPS, possible electives might include courses such as ART 105, ART 235, ART 335, ART 435, BIO 516, BIS 280, BIS 288, BIS 327, EDU 590, GEO 303, GEO 503, HEV 246, HEV 346, HEV 334, HSC 546, IET 154, IET 291, IET 359, IET 394, IET 457, IET 458, IET 502, MGT 335, PSC 585, SOC 210, and TEC 321.

Internship (3 hours):

- CPS 395 (3) Internship

Capstone Experience (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, an internship or service learning project supervised by an off-campus project director in coordination with the advisor. Students may choose one of the following:

- ITC 495 (3) Senior Internship
- CPS 497 (3) Independent Study

Cognate Requirements (9-10 hours):

Math Requirements (6-7 hours):

- STA 282 (3) Introduction to Statistics
- OR STA 382 (3) Elementary Statistical Analysis

Plus one of:

- MTH 132 (4) Calculus I
- MTH 175 (3) Discrete Mathematics
- MTH 216 (3) Mathematics for Business II

Communications Requirements (3 hours):

- IPC 264 (3) Organizational Communication
- OR IPC 361 (3) Dynamics of Interpersonal Communication

Total: 51-52 Semester Hours
Why Study Engineering and Technology?
Students enter the fields of engineering and technology to intensify and broaden their knowledge within engineering, engineering technologies, and industrial technology management, and industrial education. They will gain preparation for industrial careers in a variety of engineering, technical, supervisory, or managerial capacities, or for a secondary teaching certificate leading to a teaching career. Courses in these fields contribute to their technical and professional growth.

Engineering and Technology at CMU
Our department offers a variety of choices to students interested in teaching and on-teaching careers in engineering and technology. Departmental majors and minors reflect the diversity of our programs. 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 given on the following pages.

Graduate Study: The Master of Arts degree in industrial management and technology is available for individuals who wish to continue professional development in occupational areas of industrial supervision, industrial management, industrial production, industrial technology, or engineering technology.
A Master of Arts degree in industrial education with an option for teaching students with special needs may be earned by industrial education teachers, special education teachers, counselors, and other professionals in public schools.
Refer to the Bulletin, College of Graduate Studies, or an advisor for additional information.

Admission, Retention, and Termination Standards:
The engineering and technology degree programs consist of extensive laboratory work that 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 E&T 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 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.

Electrical Engineering Major
B.S.E.E. degree
See page 90 for all requirements for the Bachelor of Science in Electrical Engineering, 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.
Required (60):
EGR 120 (3) Introduction to Engineering
EGR 251 (3) Engineering Statics
EGR 290 (3) Circuit Analysis I
EGR 292 (3) Circuit Analysis II
EGR 294 (3) Digital Circuits
EGR 296 (3) Circuit Lab
EGR 355 (3) Engineering Materials
EGR 371 (3) Robotics & Automation
EGR 390 (3) Microelectronic Circuit I
EGR 392 (3) Microelectronic Circuit II
EGR 394 (3) Computer Circuit Simulation
EGR 396 (3) Microprocessor Fundamentals
EGR 398 (3) Microelectronics and Computer Lab
EGR 489 (3) Senior Design I
EGR 490 (3) Computer Data Acquisition & Instrumentation
EGR 492 (3) Automatic Control Systems
EGR 494 (3) Power Electronics
EGR 496 (3) Communication Systems
EGR 498 (3) Introduction to Electromagnetics
EGR 499 (3) Senior Design II
Electives (3)
Select at least 3 hours from the following engineering courses:
EGR 253 (3) Engineering Dynamics
EGR 255 (3) Strength of Materials
EGR 356 (3) Thermodynamics I
EGR 358 (3) Fluid Mechanics
EGR 437 (3) Directed Research in Engineering
Total Credit Hours: 63

Mechanical Engineering Major
B.S.M.E. degree

See page 93 for all requirements for the Bachelor of Science in Mechanical Engineering, 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.

Required (60):
IET 154 (3) Engineering Design Graphics
EGR 120 (3) Introduction to Engineering
EGR 251 (3) Engineering Statics
EGR 253 (3) Engineering Dynamics
EGR 255 (3) Strength of Materials
EGR 290 (3) Circuit Analysis I
EGR 294 (3) Digital Circuits
EGR 355 (3) Engineering Materials
EGR 356 (3) Thermodynamics I
EGR 358 (3) Fluid Mechanics
EGR 359 (3) Machine Design I
EGR 360 (3) Solid Mechanics Laboratory
EGR 371 (3) Robotics & Automation
EGR 453 (3) Vibration
EGR 456 (3) Thermodynamics II & Heat Transfer
EGR 458 (3) Measurement and Instrumentation Laboratory
EGR 459 (3) Machine Design II
EGR 460 (3) Thermal Fluids Laboratory
EGR 489 (3) Senior Design I
EGR 499 (3) Senior Design II
Electives (3):
Select 3 hours from the following engineering courses:
EGR 292 (3) Circuit Analysis II
EGR 390 (3) Microelectronic Circuit I
EGR 437 (3) Directed Research in Engineering
EGR 476 (3) Mechanics of Composite Materials
EGR 477 (3) Finite Element Analysis
EGR 478 (3) Advanced Mechanics of Materials
EGR 479 (3) Fracture and Fatigue Analysis
Total Credit Hours: 63

Engineering Technology Major
B.S.E.T. degree

The engineering technology majors are designed to prepare students who aspire to careers related to electronic, manufacturing or mechanical engineering. Students who wish to pursue one of these majors must fulfill the following: 1) Basic Science and Mathematics (24-31 hours), and 2) technical courses (51 hours). The courses designated by an asterisk* may also be used to fulfill University Program and competency requirements. Students pursuing any of these majors must consult with a departmental advisor during their first semester at CMU.

1. Basic Science and Mathematics (24-31 hours)
All students pursuing a major in electronic, manufacturing or mechanical engineering technology must complete the following basic science and mathematics requirements:

MTH 130 (4) Pre-calculus Mathematics
*MTH 132 (4) Calculus I

OR *MTH 136 (5) Calculus I for Engineers and Scientists

MTH 133 (4) Calculus II

OR *MTH 137 (5) Calculus II for Engineers and Scientists

*PHY 130 (4) College Physics I

OR *PHY 145 (4) University Physics I

PHY 131 (4) College Physics II

OR PHY 146 (4) University Physics II

*PHY 170 (1) College Physics Laboratory I

OR *PHY 175 (1) University Physics Laboratory I

PHY 171 (1) College Physics Laboratory II

OR PHY 176 (1) University Physics Laboratory II

*CHM 120 (4) Survey of Chemistry

OR *CHM 131 (4) Introduction to Chemistry

CPS 150 (2) FORTRAN Programming

OR *CPS 180 (3) Principles of Computer Programming

* These courses also fulfill University Program requirements.

2. Engineering Technology Majors (51 hours)
All engineering technology students are required to complete the following core courses. Additionally, all students must complete 21 required credits from one of three Technology Specializations. Students also need to select nine credits of Technical Electives in consultation with an advisor. The specialization shall be the name of the major.

Technology Core (21 hours)
IET 120 (3) Introduction to Engineering Technology
IET 154 (3) Engineering Design Graphics
IET 170 (3) Mechanical Technology
IET 284 (3) Fluid Power Technology
IET 292 (3) DC Circuit Analysis
IET 365 (3) Plastics Technology
IET 375 (3) Robotics

Technology Specializations

Electronic Engineering Technology (21 hours):
IET 293 (3) AC Circuit Analysis
IET 390 (3) Discrete Device Theory
IET 392 (3) Linear Electronics
IET 394 (3) Digital Electronics
IET 492 (3) Interfacing with Programmable Devices
IET 494 (3) Data Acquisition and Control
IET 576 (3) Industrial Automation

Mechanical Engineering Technology (21 hours)
Select 21 semester hours of coursework from the following:
IET 350 (3) Mechanics Design
IET 351 (3) Dynamics
IET 352 (3) Fluid Mechanics
IET 356 (3) Thermodynamics
IET 379 (3) Mechanics of Materials
IET 452 (3) Mechanical Laboratory
IET 454 (3) Mechanical Design Problems
IET 458 (3) Advanced Computer-Aided Design

Manufacturing Engineering Technology (21 hours)
Select 21 semester hours of coursework from the following:
IET 225 (3) Manufacturing Processes Planning
IET 326 (3) Manufacturing Methods Analysis
IET 377 (3) Numerical Control Programming
IET 426 (3) Plant Layout and Materials Handling
IET 428 (3) Manufacturing Quality
IET 477 (3) Computer-Assisted Numerical Control Programming
IET 500 (3) Production Concepts
IET 576 (3) Industrial Automation

Technical Electives (9 hours)
Select 9 semester hours of coursework from the following:
IET 180 (3) Power and Energy Technology
IET 327 (3) Industrial Safety
IET 354 (3) Descriptive Geometry
IET 359 (3) Computer-Aided Drafting
IET 385 (3) Automotive Engines
IET 388 (3) Automotive Power Transmission
IET 425 (2-6) Industrial Internship
IET 427 (3) Product Reliability and Safety
IET 450 (3) Machine Design Graphics
IET 451 (3) Geometric Dimensioning and Tolerancing
IET 455 (3) Tool Design
IET 457 (3) Computer-Aided Design
IET 458 (3) Advanced Computer-Aided Design
IET 475 (3) Metallurgy and Materials Testing
CPS 105 (1) Word Processing Concepts
CPS 106 (1) Spreadsheet Concepts
CPS 107 (1) Database Concepts

**Concentration 2: Manufacturing/Production Technology**

*PHY 130 (4) College Physics I
*PHY 170 (1) College Physics Lab I
*MTH 106 (3) Plane Trigonometry
IET 225 (3) Manufacturing Process Planning
IET 326 (3) Manufacturing Methods Analysis
IET 359 (3) Computer-Aided Drafting
IET 375 (3) Robotics
IET 377 (3) Numerical Control Programming
IET 425 (2-6) Industrial Internship
IET 426 (3) Plant Layout and Materials Handling
IET 428 (3) Manufacturing Quality
IET 475 (3) Metallurgy and Materials Testing
IET 477 (3) Computer-Aided Numerical Control Programming
CPS 105 (1) Word Processing Concepts
CPS 106 (1) Spreadsheet Concepts
CPS 107 (1) Database Concepts

**Concentration 3: Construction Technology**

*IET 361 (3) Construction Technology
*IET 567 (3) Construction Safety
*IET 591 (3) Construction Management
IET 160 (3) Wood Technology
IET 294 (2) Residential Electrical Wiring
IET 357 (3) Residential Architectural Graphics
IET 358 (3) Light Commercial Architectural Graphics
IET 359 (3) Computer-Aided Drafting
IET 362 (3) Residential Finish Technology
IET 363 (3) Building Code Enforcement
IET 367 (3) International Building Codes
IET 368 (3) International Residential Code
IET 425 (2-6) Industrial Internship
IET 426 (3) Plant Layout and Materials Handling
IET 428 (3) Manufacturing Quality
IET 561 (3) Light Frame Construction Workshop
BLR 360 (3) Construction Law
CPS 105 (1) Word Processing Concepts
CPS 106 (1) Spreadsheet Concepts
CPS 107 (1) Database Concepts
PSY 336 (3) Industrial/Organizational Psychology

**Concentration 4: Automotive Technology**

*CPS 105 (1) Word Processing Concepts
*CPS 106 (1) Spreadsheet Concepts
*CPS 107 (1) Database Concepts
*MGT 310 (3) Small Business Management
ECO 201 (3) Principles of Macroeconomics
ACC 101 (3) Introduction to Accounting
IET 359 (3) Computer-Aided Drafting
IET 382 (3) Vehicle Control Systems
IET 385 (3) Automotive Engines
IET 388 (3) Automotive Power Transmission
IET 425 (2-6) Industrial Internship
IET 450 (3) Machine Design Graphics
IET 457 (3) Machine Design Graphics
IET 475 (3) Metallurgy and Materials Testing
IET 483 (3) Automotive Electrical Systems
IET 485 (3) Fuels and Lubricants
IET 486 (3) Automotive Testing
Concentration 5: Graphics Technology

*JRN 302 (3) Introduction to Graphics & Visual Communications
*CPS 108 (1) Computer Graphics Concepts
*BCA 210 (4) Survey of the Mass Media
OR ART 135 (3) Introduction to Graphic Design
IET 143 (3) Introduction to Graphic Arts
IET 154 (3) Engineering Design Graphics
IET 343 (3) Line Photography and Beginning Offset
IET 346 (3) Screen Printing
IET 359 (3) Computer-Aided Drafting
IET 425 (2-6) Industrial Internship
IET 443 (3) Process Color Procedures
IET 446 (3) Advanced Camera Techniques
IET 543 (3) Production Printing Methods

TOTAL: 70 semester hours

To satisfy the mathematics competency requirement, a student must earn a grade of "C" or better in MTH 105 or 106 or 107, or STA 282 or otherwise satisfy the requirements in the General Education Requirement section.

Minor: Minors are required on the B.A.A. and B.S. (Plan B) degrees but are optional on the B.A. and B.S. (Plan A) degrees. If a minor is selected, consult with major advisor.

Industrial Technology Minor
B.A.; B.A.A.; B.S.; B.S. in B.A. degrees

Required Courses (21 hours):
Students may select courses appropriate to any IET major concentration with advisor approval:
- Manufacturing Management
- Construction Management
- Graphics Management
- Automotive Technology
- Design and Engineering Graphics Technology
- Mechanical Technology
- Production Technology

Total: 21 semester hours

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

Required Courses:
Year One

General Technology Core (18 hours) selected from:
- IET 116 (3) General Drafting
- IET 154 (3) Engineering Design Graphics
- IET 143 (3) Introduction to Graphic Arts
- IET 160 (3) Wood Technology
- IET 170 (3) Metal Technology
- IET 180 (3) Power and Energy Technology
- IET 291 (3) Applied Electronics
- IET 365 (3) Plastics Technology

Years Two-Three

Professional Core (6 hours):
- IET 232 (2) Technology for Children
- IET 238 (1) Practicum in Industrial Education: Early Experience
- IET 438 (3) Practicum in Industrial Education: Pre-student Teaching

Note: IET 238 (1) and IET 438 (3) may substitute for EDU 107 (2) to meet the professional requirements for teacher certification.

TOTAL: 42 semester hours

Teaching Minor: Industrial Education

A 20 hour teaching minor in industrial education is required with the 41 hour teaching major if K-12 certification is desired. Consult with an advisor or mentor in the IET department.

Teaching Minor: Industrial Education

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 IET department.

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.

Why Study Geography?

Geography (GEO/ESC) offers a challenging and stimulating variety of courses and programs that will help you cope with our rapidly changing world. Geography provides an interesting and revealing approach to contemporary environmental, economic, and social issues in that it emphasizes the interrelationships and interactions between humans and the environment. Earth science courses stress the patterns and processes of natural phenomena which affect our environment. Human geography courses focus upon human patterns of occupancy and resource use. Technical courses provide the means to produce maps, images, and data bases used to display and analyze these relationships.

Geographers work under many different names -- climatologists, weather forecasters, cartographers, aerial photo/image analysts, geographic information systems specialists, resource managers, environmental consultants, land use planners, and educators.

Geography provides a means to help better understand our varied environments.

Geography at CMU

The general objective of the Department of Geography is to offer courses in geography and earth science which contribute to an understanding of the earth's physical/human systems.

The department offers a major and minor in geography and advises the interdisciplinary major and minor in earth science. In addition, specialized major concentrations in geography are available in geographic information sciences (GIS), in environmental analysis and land use planning. In earth science, concentrations are in meteorology and oceanography. The geography major requires 30-40 credit hours, and the earth science major requires a minimum of 36 credit hours. Both of the majors and minors are advised under teaching and nonteaching degrees.

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.

Geography Majors

Geography Major

B.A.; B.S. degrees
Advisors: staff

1. Core: 12 semester hours
   GEO 120 (3) Environmental Geography
   GEO 121 (3) Cultures of the World
   GEO 203 (3) Introduction to Geographic Information Science
   ESC 105 (3) Physical Geography

2. Required Courses: 9 semester hours
   9 hours of 300-level, including one regional course.

3. Electives: 9 hours selected with permission of advisor.

Total: 30 semester hours

Geography Major

B.A.; B.S. degrees

Geographic Information Sciences (GISci) Concentration
Advisors: Li, Lobben, Patton, Westmoreland

1. Core: 12 semester hours
   GEO 120 (3) Environmental Geography
   GEO 121 (3) Cultures of the World
   GEO 203 (3) Introduction to Geographic Information Science
   ESC 105 (3) Physical Geography

2. Concentration: 25 semester hours
   GEO 303 (3) Computer Cartography and GIS
   GEO 305 (3) Remote Sensing of the Environment
   GEO 404 (1) Global Positioning System
   GEO 500 (3) Advanced Cartography
   GEO 503 (3) Geographic Information Systems
   GEO 506 (3) Applications in Remote Sensing of the Environment
   GEO 508 (3) Digital Remote Sensing
   CPS 110 (3) Beginning Programming in BASIC
   OR CPS 180 (3) Principles of Computer Programming
   STA 382 (3) Elementary Statistical Analysis
3. 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, Shively, Simmons

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.

1. Core: 12 semester hours
   GEO 120 (3) Environmental Geography
   GEO 121 (3) Cultures of the World
   GEO 203 (3) Introduction to Geographic Information Science
   ESC 105 (3) Physical Geography

2. Concentration: 15 semester hours
   GEO 303 (3) Computer Cartography and GIS
   GEO 330 (3) Resource Perception and Utilization
   GEO 340 (3) Urban Geography
   GEO 530 (3) Land Use Planning
   GEO 531 (3) Integrated Land Use Planning

3. Electives: 9 semester hours
   *At least one physical course (i.e., ESC or BIO), and a course in statistics, is strongly recommended.
   GEO 305 (3) Remote Sensing of the Environment
   GEO 317 (3) Economic Geography
   GEO 320 (3) Population Geography
   GEO 500 (3) Advanced Cartography
   GEO 503 (3) Geographic Information Systems
   GEO 508 (3) Digital Remote Sensing
   GEO 512 (3) Quantitative Methods for Spatial Analysis
   *ESC 210 (3) Landforms
   OR *ESC 310 (3) Surface Hydrology
   OR *ESC 334 (3) Soil Science
   OR *BIO 334 (3) Soil Science
   BLR 521 (3) Environmental Law and Policy
   PSC 261 (3) State and Local Government
   *STA 282 (3) Introduction to Statistics
   OR *STA 382 (3) Elementary Statistical Analysis

Total: 36 semester hours

Geography Minor

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

Advisors: Staff

1. Requirements (11-13 hours) at least one course in each of the following categories:
   a. Techniques:
      GEO 203 (3) Introduction to Geographic Information Science
      GEO 303 (3) Computer Cartography and GIS
      GEO 305 (3) Remote Sensing of the Environment
      GEO 500 (3) Advanced Cartography
      GEO 506 (3) Applications in Remote Sensing of the Environment
      GEO 550 (3) Geography for Teachers
   b. Systematic:
      GEO 120 (3) Environmental Geography
      GEO 121 (3) Cultures of the World
      GEO 200 (3) Contemporary World Problems
      GEO 317 (3) Concepts of Economic Geography
      GEO 320 (3) Population Geography
      GEO 325 (3) Geography of Growth and Change
      GEO 330 (3) Resource Perception and Utilization
      GEO 340 (3) Urban Geography
      GEO 345 (3) Political Geography
      GEO 530 (3) Land Use Planning
   c. Regional:
      GEO 350 (3) Anglo-America
      GEO 365 (3) Europe
      GEO 373 (3) Latin America
      GEO 395 (3) Michigan
      GEO 515 (3) Geography of the Great Lakes Region
   d. Physical:
      ESC 105 (3) Physical Geography
      ESC 201 (4) Weather
      ESC 205 (3) Oceanography
      ESC 210 (3) Landforms
      ESC 240 (4) Meteorology
      ESC 301 (3) Climatology and Climate Change
      ESC 303 (3) Synoptic Meteorology I
      ESC 304 (3) Synoptic Meteorology II
      ESC 305 (3) Oceanography: Economic and Environmental
      ESC 310 (3) Surface Hydrology
      ESC 320 (3) Glacial Morphology and Landforms
      ESC 330 (3) Biogeography
      ESC 334 (3) Soil Science
      OR *BIO 334 (3) Soil Science

(continued)
Earth Science Majors

Earth Science Major
B.A., B.S. degrees

Meteorology Concentration
Advisors: Aron, Mower

1. Required Meteorology Courses (23 hours):
   - ESC 240 (4) Meteorology
   - ESC 303 (3) Synoptic Meteorology I
   - ESC 304 (3) Synoptic Meteorology II
   - ESC 340 (3) Micrometeorology
   - ESC 341 (1) Micrometeorology Laboratory
   - ESC 403 (3) Physical Meteorology
   - ESC 503 (3) Dynamic Meteorology I
   - ESC 504 (3) Dynamic Meteorology II

2. Required Cognate Courses (21-24 hours):
   - PHY 145 (4) University Physics I
   - PHY 146 (4) University Physics II
   - PHY 175 (1) University Physics Laboratory I
   - PHY 176 (1) University Physics Laboratory II
   - MTH 334 (3) Differential Equations
   - CPS 109 (1) Computer Communication Concepts
   - CPS 150 (3) FORTRAN Programming
   - CHM 120 (4) Survey of Chemistry
     AND CHM 127 (1) Introductory Chemistry Laboratory
   - OR CHM 131 (4) Introduction to Chemistry I
     AND CHM 132 (4) Introduction to Chemistry II

3. Electives (6 hours): selected in consultation with the major advisor from the following:
   - PHY 247 (4) Introduction to Modern Physics
   - PHY 332 (3) Electricity and Magnetism
   - PHY 450 (3) Thermal Physics
   - PHY 533 (3) Electromagnetic Waves
   - MTH 438 (3) Numerical Analysis I
   - MTH 439 (3) Numerical Analysis II
   - STA 382 (3) Elementary Statistical Analysis
   - CPS 180 (3) Principles of Computer Programming
   - CPS 181 (3) Introduction to Data Structures
   - ESC 205 (3) Oceanography
   - ESC 301 (3) Climatology and Climatic Change
   - ESC 310 (3) Surface Hydrology
   - ESC 346 (3) Air Pollution
   - ESC 546 (2) Biometeorology
   - GEO 303 (3) Computer Cartography and GIS
   - GEO 305 (3) Remote Sensing of the Environment
   - GEO 503 (3) Geographic Information Systems
   - GEO 508 (3) Computer Assisted Remote Sensing

Total: 50-53 semester hours

Earth Science Major
B.A., B.S. degrees

Oceanography Concentration
Advisor: Nelson

1. Required Courses (34-37 hours):
   - ESC 201 (4) Weather
     OR ESC 240 (4) Meteorology
   - ESC 205 (3) Oceanography
   - ESC 305 (3) Oceanography: Economic and Environmental
   - GEL 101 (3) Physical Geology
   - GEL 102 (1) Physical Geology Laboratory
   - GEL 201 (2) Earth History
   - GEL 303 (3) Oceanography: Marine Geology
   - BIO 101 (3) General Biology
     OR BIO 105 (3) Introductory Quantitative Biology

Electives (9 hours) from the following:
   - GEO 404 (1) Global Positioning System
   - GEO 500 (3) Advanced Cartography
   - GEO 503 (3) Geographic Information Systems
   - GEO 506 (3) Applications in Remote Sensing of the Environment
   - GEO 508 (3) Digital Remote Sensing
   - GEO 512 (3) Quantitative Methods for Spatial Analysis
   - GEO 575 (1-3) Special Studies in Geography
   - GEO 591 (1-3) Internship
   - GEO 597 (1-3) Independent Study

Total: 21 semester hours

Earth Science Major
B.A., B.S. degrees

Geography Minor
B.S. in Ed. degree, all certifications
Advisors: Kiefer, Libbee

1. Required Courses (15 hours):
   - GEO 120 (3) Environmental Geography
   - GEO 121 (3) Cultures of the World
   - GEO 203 (3) Introduction to Geographic Information Science
   - GEO 400 (3) Geographic Education
   - ESC 105 (3) Physical Geography

2. Electives (8-9 hours) selected in consultation with advisor, including:
   a. one thematic course focused on social/economic issues.
      (Selected from: GEO 315 (3), GEO 317 (3), GEO 325 (3), GEO 330 (3), GEO 340 (3) or GEO 345 (3))
   b. one regional course in a North American context which includes a concern with ethnic groups and minority populations.
      (Selected from: GEO 350 (3), GEO 395 (3), GEO 515 (3))
   c. one regional course focused on an area other than North America or an internationally focused course.
      (Selected from: GEO 346 (3), GEO 365 (3), GEO 373 (3))

Total: 23-24 semester hours

Geographic Information Sciences (GISci) Minor
B.A.; B.A.A.; B.S. degrees
Advisors: Li, Lobben, Patton, Westmoreland

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 (12 hours):
   - GEO 203 (3) Introduction to Geographic Information Science
   - GEO 303 (3) Computer Cartography and GIS
   - GEO 305 (3) Remote Sensing of the Environment
   - CPS 110 (3) Beginning Programming in Basic
     OR CPS 180 (3) Principles of Computer Programming

Electives (9 hours) from the following:
   - GEO 404 (1) Global Positioning System
   - GEO 500 (3) Advanced Cartography
   - GEO 503 (3) Geographic Information Systems
   - GEO 506 (3) Applications in Remote Sensing of the Environment
   - GEO 508 (3) Digital Remote Sensing
   - GEO 512 (3) Quantitative Methods for Spatial Analysis
   - GEO 575 (1-3) Special Studies in Geography
   - GEO 591 (1-3) Internship
   - GEO 597 (1-3) Independent Study

Total: 21 semester hours

Geography Minor
B.S. in Ed. degree, all certifications
Advisors: Kiefer, Libbee

1. Required Courses (15 hours):
   - GEO 120 (3) Environmental Geography
   - GEO 121 (3) Cultures of the World
   - GEO 203 (3) Introduction to Geographic Information Science
   - GEO 400 (3) Geographic Education
   - ESC 105 (3) Physical Geography

2. Electives (8-9 hours) selected in consultation with advisor, including:
   a. one thematic course focused on social/economic issues.
      (Selected from: GEO 315 (3), GEO 317 (3), GEO 325 (3), GEO 330 (3), GEO 340 (3) or GEO 345 (3))
   b. one regional course in a North American context which includes a concern with ethnic groups and minority populations.
      (Selected from: GEO 350 (3), GEO 395 (3), GEO 515 (3))
   c. one regional course focused on an area other than North America or an internationally focused course.
      (Selected from: GEO 346 (3), GEO 365 (3), GEO 373 (3))

Total: 23-24 semester hours

Environmental Science

Micrometeorology
ESC 340 (3) Micrometeorology
ESC 346 (3) Air Pollution
ESC 350 (3) Environmental Catastrophes
ESC 546 (3) Biometeorology

Electives (7-9 hours) selected in consultation with the minor advisor.

Total: 20 semester hours
Earth Science Major
B.A.; B.S. degrees
Advisors: Aron, Franczek, Nelson, Pape
This is an interdisciplinary major. Please check the index for the page number.

Earth Science Minor
B.A.; B.A.A.; B.S.; B.S. in B.A.
Advisors: Kiefer, Matty, Nelson
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: Kiefer, Matty, Nelson
This is an interdisciplinary minor. Please check the index for the page number.

Meteorology Minor
B.A.; B.S.; B.A.A. degrees
Advisors: Aron, Mower
1. Required Courses (14 hours)
   ESC 201 (4) Weather
   OR ESC 240 (4) Meteorology
   ESC 303 (3) Synoptic Meteorology I
   ESC 304 (3) Synoptic Meteorology II
   ESC 340 (3) Micrometeorology
   ESC 341 (1) Micrometeorology Laboratory
2. Electives (6 hours) selected in consultation and with the approval of the minor advisor.
Total: 20 Semester Hours

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.

The faculty. Robert H. Aron, Jorge A. Brea, Mark Franczek, Wayne E. Kiefer, Bin Li, Michael J. Libbee, Amy Lobben, R. Neil Mower, Burton D. Nelson, Bruce M. C. Pape, David Patton, David Shively, Cynthia Simmons, Sally Westmoreland
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. 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, education, business, and pre-law. And geology courses are helpful to students interested in fossils, gems, minerals, earthquakes, volcanoes, and resources.

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 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.

Admission, Retention, and Termination Standards

I. In order to sign a major or minor in the Department of Geology, a student must first meet with the department chair and provide written evidence that the student has successfully completed 45 semester hours of university work with an overall GPA of 2.7. These 45 hours must include GEL 100, or GEL 130, or GEL 101 and GEL 102, or GEL 105 and GEL 102 with a minimum grade of B-.

II. In order to remain a major or minor in the Geology program, students are required to maintain a minimum average 2.7 GPA in all of their 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 ENG 101 must have earned a minimum grade of B- in ENG 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 SDA 101 or one of its accepted substitutes (SDA 302, IPC 267, IPC 269, IPC 357, TAI 170).

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

C. Math Competency:
   To remain a major or minor 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 2.7 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

Core

1. Any one of the following sequences of Introductory Geology with laboratory (3-4 hours):
   A. GEL 101 (3) Physical Geology
      AND GEL 102 (1) Physical Geology Laboratory
   B. GEL 105 (3) Environmental Geology
      AND GEL 102 (1) Physical Geology Laboratory
   C. GEL 100 (3) Introduction to Earth Systems
   D. GEL 130 (3) Earth Processes

2. Major Courses (25 hours)
   GEL 201 (3) Earth History
   GEL 290 (3) Introduction to Geologic Investigation
   GEL 310 (4) Introductory Mineralogy
   GEL 321 (4) Petrology
   GEL 370 (3) Structural Geology
   GEL 440 (3) Stratigraphy and Sedimentology
   GEL 450 (5) Geology Field Camp

B.S. Option A

This option is a pre-graduate/pre-professional 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.

Geology Major
   GEL 430 (3) Invertebrate Paleontology
   GEL 372 (3) Introduction to Geophysics
   OR GEL 380 (3) Hydrogeology
   OR GEL 460 (3) Geochemistry
   GEL 406 (3) Senior Thesis
   GEL 575 (1) Special Studies in Geology
   MTH 132 (4) Calculus I
   AND MTH 133 (4) Calculus II
   AND MTH 223 (3) Linear Algebra and Matrix Theory
   OR STA 382 (3) Elementary Statistical Analysis
   CHM 131 (4) Introduction to Chemistry I
   AND CHM 132 (4) Introduction to Chemistry II
   OR CHM 161 (5) Principles of Chemistry
   CHM 342 (4) Survey of Organic Chemistry
   OR CHM 345 (3) Organic Chemistry I
   3 semester hours of electives selected from the following:
      all 300-level or higher GEL courses except 301, 304, 320
      CHM 346 (3) Organic Chemistry II
      ESC 310 (3) Surface Hydrology
      GEO 303 (3) Computer Cartography and GIS
      MTH 334 (3) Differential Equations
      STA 382 (3) Elementary Statistical Analysis
   Total: 66-71 semester hours, 4 hours of prerequisites (PHY 130)

B.A. and 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. In addition to the core curriculum, students are required to take:

Geology Major
   GEL 430 (3) Invertebrate Paleontology
   GEL 372 (3) Introduction to Geophysics
   OR GEL 380 (3) Hydrogeology
   OR GEL 460 (3) Geochemistry
   3 semester hours of approved 300+ electives excluding GEL 301, GEL 304, and GEL 320
   Total: 37-38 semester hours, 16 hours of prerequisites (CHM 131; CHM 132; MTH 132; PHY 130)

Hydrogeology/Environmental Geology Concentration
   GEL 372 (3) Introduction to Geophysics
   GEL 380 (3) Hydrogeology
   GEL 402 (3) Environmental Geochemistry
   OR GEL 460 (3) Geochemistry
   3 semester hours of electives selected from the following:
      CHM 342 (4) Survey of Organic Chemistry
      CHM 345 (3) Organic Chemistry I
      ESC 310 (3) Surface Hydrology
      GEL 413 (3) Geomorphology
      GEO 303 (3) Computer Cartography and GIS
      STA 382 (3) Elementary Statistical Analysis
   Total: 40-42 semester hours, 16 hours of prerequisites (CHM 131; CHM 132; MTH 132; PHY 130)

Environmental Studies Major

B.A.; B.S. degrees

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

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

Required Courses (12-13 hours):
1. Any one of the following sequences of Introductory Geology with laboratory:
   A. GEL 101 (3) Physical Geology
      AND GEL 102 (1) Physical Geology Laboratory
   B. GEL 105 (3) Environmental Geology
      AND GEL 102 (1) Physical Geology Laboratory
   C. GEL 100 (3) Introduction to Earth Systems
   D. GEL 130 (3) Earth Processes
2. GEL 201 (3) Earth History
3. GEL 290 (3) Introduction to Geologic Investigation
4. GEL 320 (3) Earth Materials

Plus 9 hours of 200-level or higher geology courses (excluding GEL 301).

Total: 21-22 semester hours

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

Required Courses (12-13 hours)
1. Any one of the following sequences of Introductory Geology with laboratory:
   A. GEL 101 (3) Physical Geology
      AND GEL 102 (1) Physical Geology Laboratory
   B. GEL 105 (3) Environmental Geology
      AND GEL 102 (1) Physical Geology Laboratory
   C. GEL 100 (3) Introduction to Earth Systems
   D. GEL 130 (3) Earth Processes
2. GEL 201 (3) Earth History
3. GEL 290 (3) Introduction to Geologic Investigation
4. GEL 320 (3) Earth Materials

Plus 9 hours of elective courses from the following:
   BIO 365 (3) Environmental Contaminants
   OR CHM 342 (4) Survey of Organic Chemistry
   OR CHM 345 (3) Organic Chemistry I
   ESC 310 (3) Surface Hydrology
   GEL 320 (3) Earth Materials
   GEL 372 (3) Introduction to Geophysics
   GEL 402 (3) Environmental Geochemistry
   GEL 413 (3) Geomorphology
   GEL 440 (3) Stratigraphy and Sedimentology

Total: 21-23 semester hours

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.

The faculty. Kathleen Benison, Lisa Boettcher, Allen Dodson, Staci Goetz, Keith Johnson, Patrick Kennicutt, David J. Matty, Jane M. Matty, Sven Morgan, Mona Sirbescu, James Student, Reed Wicander
Mathematics (MTH) (STA)

For information, please contact the Chairperson, 774-3596, 214 Pearce Hall
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 deal with data. Actuaries deal with 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 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.

Majors

Mathematics Major

B.A.; B.S. degrees

1. Required Courses (27 hours)
   MTH 132 (4) Calculus I
   MTH 133 (4) Calculus II
   MTH 223 (3) Linear Algebra and Matrix Theory
   MTH 233 (4) Calculus III
   MTH 332 (3) Introduction to Analysis
   MTH 523 (3) Modern Algebra I
   Either
     MTH 532 (3) Advanced Calculus I,
     OR
     MTH 545 (3) Introduction to Point-Set Topology
   MTH 499 (3) Capstone Course in Mathematics

2. Electives from MTH, STA, or CPS (9 or more 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 below.

   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

A minimum 2.7 GPA (B-) must be earned in all teaching majors.

1. Required Courses:
   MTH 132 (4) Calculus I
   MTH 133 (4) Calculus II
   MTH 175 (3) Discrete Mathematics
   OR MTH 375 (3) Discrete Structures
   MTH 223 (3) Linear Algebra and Matrix Theory
   MTH 332 (3) Introduction to Analysis
   MTH 341 (3) College Geometry
   MTH 361 (1) Field Experience in Teaching Mathematics
   MTH 461 (4) Teaching of Secondary School Mathematics
   MTH 523 (3) Modern Algebra I
   MTH 566 (3) Microcomputers for Secondary School Mathematics Teachers
   STA 382 (3) Elementary Statistical Analysis

2. 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 (4) Calculus III
   MTH 334 (3) Differential Equations
   MTH 375 (3) Discrete Structures
   MTH 499 (3) Capstone Course in Mathematics
   MTH 521 (3) Theory of Numbers
   MTH 532 (3) Advanced Calculus I
   MTH 545 (3) Introduction to Point-Set Topology
   MTH 570 (3) Mathematical Logic
   MTH 573 (3) History of Mathematics
   MTH 578 (3) Applied Combinatorics
   STA 580 (3) Applied Statistical Methods

   Electives are to be selected from MTH or STA in consultation with and approved by a mathematics advisor.

Total: 39 or 40 semester hours

Mathematics Major

B.S. in Ed. degree, Provisional Elementary Certification

A minimum 2.7 GPA (B-) must be earned in all teaching majors.

Admissions, Retention, and Termination Standards

To sign a major, students must have:

1. Completed either MTH 130 or MTH 132 with a grade of B- or higher.
2. Completed MTH 151 with a grade of B or higher.
3. Completed MTH 152 with a grade of B or higher.

(continued)
1. Required Courses:
   MTH 132 (4) Calculus I
   MTH 175 (3) Discrete Mathematics
   MTH 256 (3) Problem Solving with Technology for K-8 Mathematics Teachers
   MTH 351 (3) Geometry for K-8 Mathematics Teachers
   MTH 551 (3) Mathematical Structures for K-8 Mathematics Teachers
   MTH 553 (3) History of Elementary Mathematics for K-8 Mathematics Teachers
   MTH 554 (3) Probability and Statistics for K-8 Mathematics Teachers
   and either:
   STA 282 (3) Introduction to Statistics
   OR STA 382 (3) Elementary Statistical Analysis

2. 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

Statistics Major
B.A.; B.S. degrees

1. Required Courses: (33 hours)
   MTH 132 (4) Calculus I
   MTH 133 (4) Calculus II
   MTH 223 (3) Linear Algebra and Matrix Theory
   MTH 233 (4) Calculus III
   STA 382 (3) Elementary Statistical Analysis
   STA 575 (3) Introduction to Statistical Packages
   STA 580 (3) Applied Statistical Methods I
   STA 584 (3) Mathematical Statistics I
   STA 585 (3) Mathematical Statistics II
   STA 590 (3) Applied Statistical Methods II

2. Two from the following: (6 hours)
   STA 582 (3) Experimental Designs
   STA 583 (3) Nonparametric Statistics
   STA 586 (3) Clinical Trials and Survival Analysis
   STA 587 (3) Statistical Theory and Methods for Quality Improvement
   STA 588 (3) Sampling Techniques
   STA 589 (3) Time Series Forecasting
   STA 591 (3) Statistical Methods for Data Mining

3. Cognate Area (6 hours) from either (A) mathematics track or (B) an application track in the discipline other than MTH or STA in which statistics has natural applications.
   A. Mathematics Track:
      (Recommended for students who plan to do graduate study)
      MTH 332 (3) Introduction to Analysis
      MTH 532 (3) Advanced Calculus I
   B. Application Track: Select six credit hours from the courses in which statistics has natural applications 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.

Total: 45 semester hours

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.

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 minors.

1. Required Courses:
   MTH 132 (4) Calculus I
   MTH 175 (3) Discrete Mathematics
   MTH 223 (3) Linear Algebra and Matrix Theory
   MTH 341 (3) College Geometry
   MTH 461 (4) Teaching of Secondary School Mathematics
   (MTH 136 may be substituted for MTH 132 and MTH 137 may be substituted for MTH 223.)

2. A minimum of seven additional hours are to be selected from the following list in consultation with and approved by a mathematics advisor.
   MTH 133 (4) Calculus II
   MTH 233 (4) Calculus III
   MTH 278 (3) Mathematical Models
   MTH 332 (3) Introduction to Analysis
   MTH 566 (3) Microcomputers for Secondary Mathematics Teachers
   MTH 573 (3) History of Mathematics
   STA 382 (3) Elementary Statistical Analysis
   CPS 180 (3) Principles of Computer Programming

Total: 24 semester hours

Admission, Retention and Termination Standards

To sign a minor, students must have:
1. Completed either MTH 130 or MTH 132 with a grade of B- or higher.
2. Completed MTH 151 with a grade of B or higher.
3. Completed MTH 152 with a grade of B or higher.

1. Required Courses:
   MTH 130 (4) Pre-Calculus Mathematics
   OR MTH 132 (4) Calculus I
   MTH 256 (3) Problem Solving with Technology for K-8 Mathematics Teachers
   MTH 351 (3) Geometry for K-8 Mathematics Teachers
   MTH 551 (3) Mathematical Structures for K-8 Mathematics Teachers
   MTH 553 (3) History of Elementary Mathematics for K-8 Mathematics Teachers
   MTH 554 (3) Probability and Statistics for K-8 Mathematics Teachers

2. Electives (3 semester hours) are to be selected from MTH or STA in consultation with and approval by a mathematics advisor.

Total: 22 semester hours
Mathematics Minor
B.S. in B.A. degree
At least 17 hours must be taken in the mathematics department.

1. Required Courses:
   - MTH 132 (4) Calculus I
   - MTH 278 (3) Mathematical Models
   - STA 382 (3) Elementary Statistical Analysis

2. Electives may be chosen from the following: MTH 116, MTH 133, MTH 223, MTH 233, MTH 375, MTH 520, MTH 578, MTH 586, MTH 587; CPS 181; STA 580. Electives are to be selected from MTH, STA, or CPS in consultation with and approval by a mathematics advisor.

Total: 20 semester hours

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

1. Required Courses: (13 hours)
   - MTH 132 (4) Calculus I
   - STA 382 (3) Elementary Statistical Analysis
   - STA 575 (3) Introduction to Statistical Packages
   - STA 580 (3) Applied Statistical Methods I

2. Electives (9 hours) Choose three courses from the following:
   - STA 582 (3) Experimental Design
   - STA 583 (3) Nonparametric Statistics
   - STA 586 (3) Clinical Trials and Survival Analysis
   - STA 587 (3) Statistical Theory and Methods for Quality Improvement
   - STA 588 (3) Sampling Techniques
   - STA 589 (3) Time Series Forecasting
   - STA 591 (3) Statistical Methods for Data Mining

   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 below.

Total: 22 semester hours

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 students 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, Physical Science, 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, Astronomy, and Physical Science 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 physical science and 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.
Admission, Retention, and Termination Standards

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.

Student Teaching Requirements in Physical Science (B.S. in Education)

For students seeking the department’s recommendation for student teaching in physical science, the following requirements must be met:

1. At least 20 hours of courses from the physical science major or minor (including PHS 351 or 452) must be completed with a minimum grade point average of 2.7.
2. at least 6 hours of courses with departmental designators (AST, PHS, PHY) must be completed at CMU.

NOTE: Reflecting recent changes in the Michigan Department of Education endorsements, the Department of Physics is no longer signing any new majors or minors in Physical Science.

Physics Major and Minor

Both the physics major and minor are available on the Bachelor of Arts (B.A.) Degree, the Bachelor of Science (B.S.) Degree, and the Bachelor of Science in Education (B.S. in Ed.) Degree programs.

Major and Minor Requirements: B.A. and B.S. degrees

The requirements for a physics major are a minimum of 38 semester hours of departmental offerings consisting of:

- PHY 145 (4) University Physics I
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Laboratory I
- PHY 176 (1) University Physics Laboratory II
- PHY 247 (4) Introduction to Modern Physics
- PHY 277 (1) University Physics Laboratory III
- PHY 312 (3) Introduction to Mathematical Physics
- PHY 322 (3) Intermediate Mechanics
- PHY 332 (3) Electricity and Magnetism
- PHY 442 (4) Introductory Quantum Theory
- PHY 450 (3) Thermal Physics
- PHY 505 (3) Teaching Chemistry and Physics in the Secondary School
- PHY 507 (1) Field Experience in Teaching Chemistry/Physics

and a minimum of five additional hours from courses having as a prerequisite a course in the required major sequence. 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.

The requirements for a physics minor are a minimum of 23 semester hours of departmental offerings consisting of:

- PHY 145 (4) University Physics I
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Laboratory I
- PHY 176 (1) University Physics Laboratory II
- PHY 277 (1) University Physics Laboratory III
- PHY 322 (3) Intermediate Mechanics
- PHY 332 (3) Electricity and Magnetism
- and one semester of PHY 578 (2) Experimental Physics.

Astronomy Concentration: This option is available within the physics major for students with a particular interest in astronomy or astrophysics. The requirements are completion of:

- AST 260 (4) General Astronomy I
- AST 261 (4) General Astronomy II
- AST 562 (4) Observational Astronomy
- AST 563 (3) Astrophysics

in addition to the major’s 33 hours of required courses. This program provides the background desired by most astronomy graduate programs.

Major and Minor Requirements: B.S. in Ed. degree

The requirements for a physics major are a minimum of 38 semester hours of departmental offerings consisting of:

- PHY 145 (4) University Physics I
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Laboratory I
- PHY 176 (1) University Physics Laboratory II
- PHY 247 (4) Introduction to Modern Physics
- PHY 277 (1) University Physics Laboratory III
- PHY 312 (3) Introduction to Mathematical Physics
- PHY 322 (3) Intermediate Mechanics
- PHY 332 (3) Electricity and Magnetism
- PHY 442 (4) Introductory Quantum Theory
- PHY 450 (3) Thermal Physics
- PHY 505 (3) Teaching Chemistry and Physics in the Secondary School
- PHY 507 (1) Field Experience in Teaching Chemistry/Physics

and a minimum of one additional hour from courses having as a prerequisite a course in the required major sequence. 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.

The requirements for a physics minor are a minimum of 25 semester hours of departmental offerings consisting of:

- PHY 145 (4) University Physics I
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Laboratory I
- PHY 176 (1) University Physics Laboratory II
- PHY 231 (1) Electronic Instrumentation
- PHY 247 (4) Introduction to Modern Physics
- PHY 277 (1) University Physics Laboratory III
- PHY 322 (3) Intermediate Mechanics
- PHY 332 (3) Electricity and Magnetism
- PHY 505 (3) Teaching Chemistry and Physics in the Secondary School

A combined Chemistry-Physics major is offered to prepare students to teach both physics and chemistry at the secondary level. Physics courses required are:

- PHY 145 (4) University Physics I
- PHY 146 (4) University Physics II
- PHY 175 (1) University Physics Laboratory I
- PHY 176 (1) University Physics Laboratory II
- PHY 231 (1) Electronic Instrumentation
- PHY 247 (4) Introduction to Modern Physics

(continued)
PHY 277 (1) University Physics Laboratory III
PHY 322 (3) Intermediate Mechanics
PHY 332 (3) Electricity and Magnetism
PHY 505 (3) Teaching Chemistry and Physics in the Secondary School
PHY 507 (1) Field Experience in Teaching Chemistry/Physics

The student should consult the section of the Bulletin on Interdepartmental Majors and Minors for a complete listing of the requirements of this program.

Notes and Restrictions

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, 131 for 146, 170 for 175, 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.

Physical Science Major and Minor

NOTE: Reflecting recent changes in the Michigan Department of Education endorsements, the Department of Physics is no longer signing any new majors or minors in Physical Science.

The Physical Science major and minor are available only on the Bachelor of Science in Education (B.S. in Ed.) program. This program is designed to prepare teachers of physical science. The secondary certification is insufficient preparation to teach high school biology, chemistry, or physics.

Major and Minor Requirements: B.S. in Ed., Provisional Elementary Certification

The requirements for a physical science major with an elementary certification are a minimum of 36 semester hours. Required courses are:

PHS 151 (3) Introductory Physical Science I
PHS 251 (3) Introductory Physical Science II
PHS 351 (3) Physical Science for the Elementary Grades
OR PHS 452 (3) Physical Science for the Middle Grades
PHS 563 (3) Physical Science Practicum
PHS 101 (3) Survey of Physical Science
OR PHY 100 (3) Conceptual Physics
AST 111 (3) Astronomy
AST 112 (1) Introduction to Astronomical Observations
AST 311 (3) Vistas in Astronomy
CHM 101 (3) Armchair Chemistry
OR CHM 111 (3) The Interaction of Chemistry and Society
ESC 201 (4) Weather
OR ESC 240 (4) Meteorology
ESC 205 (3) Oceanography
GEL 101 (3) Physical Geology
GEL 102 (1) Physical Geology Laboratory

PHS 151(3) Introductory Physical Science I
PHS 251(3) Introductory Physical Science II
PHS 351(3) Physical Science for the Elementary Grades
OR PHS 452(3) Physical Science for the Elementary Grades
PHS 563(3) Physical Science Practicum
AST 111(3) Astronomy
AST 112(1) Introduction to Astronomical Observations
ESC 201(4) Weather
OR ESC 240(4) Meteorology
GEL 101(3) Physical Geology
GEL 102(1) Physical Geology Laboratory

The requirements for a physical science minor with a secondary certification or provisional elementary certification with emotional or cognitive impairment endorsement are a minimum of 24 semester hours. Required courses are:

GEL 101(3) Physical Geology
ESC 201(4) Weather
ESC 205(3) Oceanography
OR
AST 111(3) Astronomy

Appropriate substitutions are allowed with the advisor’s consent such as PHY 145-146 in place of PHY 130-131, PHY 175-176 in place of PHY 170-171, CHM 111-112 in place of CHM 131-132, ESC 240 in place of ESC 201, AST 260 in place of AST 111, and BIO 105 in place of BIO 101.

Notes and Restrictions

No more than six hours of courses taken on a credit/no credit basis may be counted toward a Physical Science major or minor.

The faculty. David H. Current, Joseph Finck, Marco Fornari, Stanley Hirschi, Mihai Horoi, Koblar Jackson, Wayne Osborn, Valeri Petkov, Frederick M. Phelps III, Didarul Qadir, Andrzej Sieradzan, Sudha Srinivas, Glen Williams
# Course Descriptions

## Key to Designators

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<td>Women’s Studies</td>
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## Course Numbers

### Key to Course Descriptions

#### Course Numbers

The level of a course is indicated by the number. Usually it is expected that students will take courses appropriate to their classification. It is particularly important for freshmen to register for courses numbered below 200.

**000-099** Credits in these courses do not apply to the minimum 124 hour requirement for graduation.

**100-199** Primarily for Freshmen

**200-299** Primarily for Sophomores

**300-399** Primarily for Juniors

**400-499** Primarily for Seniors

**500-599** Advanced Undergraduate Courses

A student who has been formally admitted to the College of Graduate Studies and who takes courses numbered 500 or higher will receive graduate credit and, with the approval of the advisor, may apply it to a degree program.

**600-699** Graduate Courses

Open only to students who have been admitted to the College of Graduate Studies. Undergraduate students should use the form available from the College of Graduate Studies to apply to take a graduate course for undergraduate credit.

**700-799** Graduate Courses

Open only to students who have been admitted to the College of Graduate Studies.

**800-899** Graduate Courses

Open only to students who have been admitted to the College of Graduate Studies and who are in the third year of doctoral study or full time internship at the specialist level.

**900-999** Graduate Courses

Open only to students who have been admitted to the College of Graduate Studies and who are in the fourth year of doctoral study.

Graduate courses which are subject to limitation under the policy on unspecified content or variable credit are listed in each department.

A graduate student may include no more than two 300 or 400 level courses in the program, provided that these courses are in disciplines which are cognate to or related to the discipline in which the student is earning a degree. Prior to registering for a course at this level, the student must have received permission from the advisor, the chairperson of the department offering the course, and the Dean of the College of Graduate Studies to include such a course in the program.

### Non-Degree Courses

Courses numbered (DESIGNATOR) 589 - Professional Development (1-6) do not apply to degree requirements. These courses cover selected issues designed for professional development, in-service training to meet specific staff development needs in education, business/industry, allied health, technology, and other professional settings. They are not applicable to degree requirements.

### Cross-Listed Courses

Cross-listed courses are those courses identified in the course listing as “identical to” another course. Credit may not be earned in more than one of these courses.

### Credit and Attendance Hours

The number of semester hours of credit in each course is indicated by the first number following the title of the course. Within the parentheses, the first number indicates the number of hours of lecture per week, the second number, the hours of laboratory per week. **EXAMPLE:** 4(3-2) means four hours of credit, three hours of lecture, 2 hours of laboratory.
Prerequisites

In general, only immediate prerequisites for courses are listed. Some courses listed as prerequisites may have their own prerequisites. You may need to plan more than one semester in advance when deciding which semester to take a particular course.

Students seeking to substitute prerequisite courses with equivalents or permission of instructor may do so only with departmental approval. Such substitutions are not automatic.

Variable Credit Courses

Variable credit courses are indicated by a semester-hour designation such as 1-3(Spec). (Spec) means there are special arrangements regarding the number of hours spent in class. Maximum hours which a student may earn in a variable credit course to apply toward graduation are the highest number in the semester-hour designation for the course (i.e., three hours maximum in example listed above).

Distance Learning Courses

Distance learning courses include web-based courses, learning package courses, and other courses that do not have the traditional face-to-face classroom format. Course approved for offering in a distance learning format are identified in each department's course listing section.

Other Designation

Courses are listed in alphabetical order by designator.

Accounting

The complete description of the School of Accounting is found in the College of Business Administration.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: ACC 201, 202.

ACC 101 Introduction to Accounting 3(3-0) F, Sp
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) D
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) F, Sp, Su
Students gain an understanding of how the accounting system used to develop financial statements. The emphasis is on interpreting financial data used in business decision making. Prerequisite: completion of MTH 105.

ACC 202 Concepts of Managerial Accounting 3(3-0) F, Sp, Su
Students gain an understanding of how the information provided by an accounting information system is used for managerial decision making. Prerequisite: completion of ACC 201 and ACC 202 with average of 2.5 GPA for both courses or permission of instructor; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

ACC 210 Accounting Information for Entrepreneurial Decision Making 3(3-0) F, Sp
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) F, Sp
Overview of how a business functions through the generation and interpretation of accounting data. Prerequisites: MTH 107 or equivalent; Tier I admission to Professional Business Studies.

ACC 255 Managerial Accounting & Decision Making 3(3-0) F, Sp
Managerial decision-making methods using accounting and financial information and includes application of concepts to integrated study of business problems. Prerequisites: ACC 250; Tier 2 Admission to Professional Business Studies. Co-requisite: BIS 259.

ACC 256 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) F, Sp, Su

ACC 302 Intermediate Accounting II 3(3-0) F, Sp, Su
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) F, Sp, Su
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: ACC 202; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 321 Managerial Cost Accounting 3(3-0) F, Sp, Su
Accumulation and use of cost accounting information for planning and controlling. Process, job order, and standard cost systems. Prerequisites: ACC 202, STA 282 or STA 382; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 370 Accounting Systems and Controls 3(3-0) F, Sp, Su
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.

ACC 405 The Accounting Profession and Contemporary Accounting Issues 3(3-0) D
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) F, Sp, Su
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) F, Sp, Su
Direct reading or research on an approved topic. No more than 3 credits for ACC 491 may count toward accounting major. Prerequisites: permission of instructor; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 492 Practicum In Small Business 3(Spec) F, Sp
Provides the student an opportunity to analyze 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) F, Sp, Su
Intercorporate investments and consolidated statements, purchases and goodwill, segment reporting, interim reporting, partnerships, foreign operations, and functional accounting. Prerequisites: completion of ACC 301 and ACC 302 with average of 2.5 GPA for both courses or permission of chairperson; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor or graduate status.

ACC 511 Federal Income Tax II 3(3-0) F, Sp
Formation, operation, distribution, redemption, dissolution, and liquidation of corporations, partnerships, Subchapter S corporations and personal holding companies; accumulated earnings tax; tax shelter investments. Prerequisites: ACC 311 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 512 Tax Research and Administration 3(3-0) D
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 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.
American Studies (AMS)

AMS 250 Proseminar in American Study 3(3-0) D
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) D
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)

The complete description of Anthropology is found in the Department of Sociology, Anthropology and Social Work in the College of Humanities and Social & Behavioral Sciences.

Note: Prerequisites for any course in anthropology may be waived by permission of the Department Chairperson and the instructor.

Descriptions of courses approved for the University Program appear in italic type.

ANT 170 Cultural Anthropology 3(3-0) F, Sp
Comparative study of contemporary cultures, including methods and theories employed. The impact of globalization on cultural diversity. (Group III-B)

ANT 171 Human Origins: Introduction to Physical Anthropology 3(3-0) F, Sp
Introduction to human and primate evolution, and the origin of human hereditary variations. (Group II-A)

ANT 173 Laboratory in Physical Anthropology 1(0-2) D
Laboratory practice 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. (Group II-A)

ANT 174 Introduction to Prehistoric Archaeology: From Stone Age to Civilization 3(3-0) D
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) F, Sp
Archaeology of the Americas from the earliest peopling of the Western Hemisphere to the rise of civilizations such as the Maya, Aztec, and Inca. (Group IV-B)

ANT 200 Education and Culture 3(3-0) D
Process of cultural learning from infancy through adolescence in non-Western societies and American minority groups. (Group IV-B)

ANT 240 Archaeological Field and Laboratory Techniques 1-4(Spec) D
Practical instruction in field survey and excavation; description, classification, and analysis of materials. Prerequisite or corequisite: ANT 174 or ANT 175, or permission of instructor.

ANT 244 Human Emergence Issues: Multidisciplinary Perspectives 3(3-0) D
Central issues relating to human evolution from the viewpoint of several disciplines, including physical anthropology, biology, psychology, sociology, and cultural anthropology. Prerequisites: one course each from University Program II-A and III-B recommended. (Group IV-A)

ANT 320 North American Indian Cultures 3(3-0) D
Diversity of North American Indian cultures, their experiences of colonization and culture change, and their contributions to American and global cultures. (Group IV-C)

ANT 321 Cultures of Latin America 3(3-0) D
Indigenous, European, and African origins and contemporary diversity of cultures of Latin America. (Group IV-B)

ANT 322 Cultures of Africa 3(3-0) D
Indigenous cultures of sub-Saharan Africa; their emergence, development, and contemporary diversity; impact of sociocultural change. (Group IV-B)

ANT 324 Cultures of the South Pacific 3(3-0) D
Traditional cultures and recent social change in Polynesia, Melanesia, and Micronesia. Human settlement of the islands, ecology, evolution of political systems, and effects of colonial economies are stressed. (Group IV-B)

ANT 326 Chinese Societies 3(3-0) D
Culture and social life in prerevolutionary China and Taiwan and post-revolutionary (Communist) China. (Group IV-B)

ANT 340 South American Archaeology 3(3-0) D
Prehistory of South America, with emphasis on the Andean region. Problems of the documentation and interpretation of cultural development. Prerequisite: ANT 175 recommended.

(continued)
ANT 342 Forensic Anthropology 3(3-2) D
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 or BIO 101 or permission of instructor.

ANT 344 Michigan Archaeology 3(3-0) D
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) D (Formerly 251)
Fossil evidence of human evolution analyzed within a theoretical framework of ongoing evolutionary forces and basic taxonomic principles. Prerequisite: ANT 171 recommended.

ANT 351 The Race Concept and Human Variation 3(3-0) D
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) D
Applying principles of evolution to primate behavior with emphasis on effects of ecology on social relations and group organizations. Prerequisites: ANT 171 or BIO 101 recommended. (Group IV-A)

ANT 357 Current American Indian Issues 3(3-0) D
Current social, economic, political, and cultural issues affecting American Indians; social movements of resistance and change. (Group IV-A)

ANT 368 Hispanic Cultures in the U.S. 3(3-0) D
Hispanic cultural diversity viewed in the context of the larger U.S. society, including Anglo and Latino analyses of contributions and the role of racism in defining this group. (Group IV-C)

ANT 370 Global Environmental Issues 3(3-0) D
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) D
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) D
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 474 and/or ANT 175 recommended.

ANT 428 Ecological Anthropology 3(3-0) D
Intensive practical experience in field survey, excavation, and laboratory analysis of resulting materials. Prerequisite: ANT 174 or ANT 175 or ANT 240, or permission of instructor.

ANT 500 Field School in Archaeology 3-6(Spec)
Intensive practical experience in field survey, excavation, and laboratory analysis of resulting materials. Prerequisite: ANT 174 or ANT 175 or ANT 240, or permission of instructor.

ANT 505 Applied Anthropology 3(3-0)
Applying anthropological methods and understanding of cultural diversity to human services research, programs, and policies in multicultural settings. Prerequisites: 15 credit hours of social sciences.

ANT 506 Comparative Cultural Systems 3(3-0)
Explores theories of cultural development, with particular emphasis on urban and post-industrial cultures. Students investigate cultures different from their own. Identical to SOC 506. Credit may not be earned in more than one of these courses. Prerequisites: introductory anthropology and/or sociology course.

ANT 520 Medical Anthropology 3(3-0)
Transcultural variations in conceptions of health and healing, cultural practices that encourage or inhibit disease, and the effects of social institutions on health and illness. Prerequisites: 6 hours of cultural anthropology and/or sociology; or permission of instructor.

ANT 588 Special Topics in Anthropology 1-10(Spec)
Consideration of subject matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

ANT 590 Gender, Culture & Society 3(3-0)
Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to SOC 590 and WST 590. Credit may not be earned in more than one of these courses. (Not open to students who have completed ANT 490 or WST 490.) Prerequisites: 6 hours of anthropology and/or sociology and/or women’s studies, or permission of instructor.

ANT 698 Independent Studies in Anthropology 1-12(Spec) D
Credit Limitation. ANT 588, 698 are subject to graduate credit limitation under the policy covering unspecified content or variable credit.

Art (ART)

The complete description of the Department of Art is found in the College of Communication & Fine Arts.

Descriptions of courses approved for the University Program appear in italic type.

ART 105 Drawing—Introduction 3(0-6) F, Sp
A basic introduction to drawing media and techniques, and an exploration of the concepts of space and form in varied subject matters.

ART 110 Ceramics I: Introduction to Handbuilding 3(0-6) F, Sp
This is the second course in a two-part introductory series. Students will learn handbuilding ceramic techniques, concepts, historic precedents and contemporary examples. Prerequisite: none.

ART 115 Design I (3-0) F, Sp
A focus on two-dimensional principles and elements of design, developing creative thinking to achieve communication of content, and exploration of materials. Prerequisite: none.

ART 117 Introduction to Contemporary Issues in Art 2(2-0) F, Sp
To develop an aesthetic awareness, appreciation, and understanding of the visual arts through an introduction to media, formal analysis, and interpretation. (Group I-B)

ART 130 Painting I 3(0-6) F, Sp
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) F, Sp
An introduction to the theory and practice of graphic design communication. An emphasis is placed on technical and aesthetic fundamentals. Prerequisites: ART 105, ART 115.

ART 140 Photography I 3(0-6) F, Sp
Introduction to basic technical skills of photography as a fine art.

ART 150 Printmaking I 3(0-6) F, Sp
An introduction to intaglio and lithography printmaking techniques as a fine art. Prerequisite: ART 105.

ART 160 Sculpture I 3(0-6) F, Sp
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) F, Sp
Introduction to hand weaving on a frame loom, and off-loom techniques which may include basketry, fabric collage, felting, papermaking, and dyeing. Prerequisite: none.

ART 185 Introduction to Western Art, Part I 3(3-0) F, Sp
History of Western art from prehistoric through medieval periods. Roots of Western culture as seen in differing artistic styles and attitudes. (Group I-A)

ART 205 Drawing II 3(0-6) F, Sp
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) F, Sp
This is the second course in a two-part introductory series. Students will learn wheel thrown ceramic techniques, concepts, historic precedents and contemporary examples. Prerequisite: ART 110.
ART 211 Raku Workshop 3(0-6) D
For beginning and advanced students, involving kiln building, firing, glazing, as well as forming. Offered only when weather permits working outdoors.

ART 215 Design II 3(0-6) F, Sp
A focus on three- and four-dimensional principles and elements of design, development of creative thinking to achieve communication of content, and exploration of materials. Prerequisite: ART 115.

ART 216 Introduction to Figure Drawing 3(0-6) F, Sp
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) F, Sp
Continuation of the aims of Painting I, with emphasis on personal development. Prerequisite: ART 130.

ART 231 Color and Composition 3(0-6) D
This course is an exploration of the theories and principles of color and composition relevant to all disciplines within the fine and applied arts. Prerequisite: ART 115.

ART 235 Logo and Identity Design 3(0-6) F, Sp
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) F, Sp
Introduction to digital image making. This course includes input, image adjustments, manipulations, output, and presentation. Prerequisite: ART 140.

ART 240 Photography II 3(0-6) F, Sp
Focusing on the practice, history and techniques of photography with emphasis on aesthetics and content, this course will include lectures, discussions, demonstrations and assignments. Prerequisite: ART 140.

ART 245 Art for Preschool Children 3(0-6) D
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) F, Sp
A continuation of Printmaking I with additional emphasis on conceptual development and more advanced printing methods within fine art printmaking. Prerequisites: ART 150.

ART 260 Making Multiples: Sculpture 3(0-6) F, Sp
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) F, Sp
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(0-0) F, Sp
History of Western art from the Renaissance to the twentieth century. Relations of form and content to cultural attitudes. Unique contributions of major artists. (Group I-A)

ART 297 Special Studies 1-6(Spec) D
An advanced course with specialized topics, techniques, materials. Studio and/or scholarly areas. Prerequisite: Sophomore standing or above. (Group IV-A)

ART 305 Drawing III 3(0-6) F, Sp
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) F, Sp
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 315 Design III 3(0-6) F, Sp
Color phenomena and visual perception applied to art problems. Prerequisite: ART 215.

ART 316 Intermediate Figure Drawing 3(0-6) F, Sp
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) D
A philosophical understanding of art and its development.

ART 319 Art Criticism 3(3-0) D
The description, analysis, interpretation, and evaluation of visual art. (Group I-B)

ART 330 Painting III 3(0-6) F, Sp
Emphasis on individual development and refinement of personal expression in various approaches to painting. Prerequisite: ART 230.

ART 331 Figure Painting 3(0-6) D
Exploring problems of representation, expression, and composition of the human figure in oils and acrylics. Prerequisites: ART 105, ART 130, ART 216.

ART 334 Watercolor Painting 3(0-6) D
Exploration of transparent watercolor techniques including dry-brush and mixed-media, and development of an understanding of paper surfaces and pigment compositions. Prerequisites: ART 105, ART 115, ART 130, or permission of instructor.

ART 335 Design Bureau 3(0-6) F, Sp
Investigations into the conception and production of communication graphic solutions for real-world clients in a group or "bureau" pre-professional studio setting. Prerequisites: ART 140, ART 235, ART 349.

ART 336 Illustration 3(0-6) D
Basic methods of black and white and color media illustration techniques for the graphic designer. Prerequisites: ART 105, ART 115, ART 135, ART 140, or permission of instructor.

ART 339 Digital Imaging II 3(0-6) F
Classroom and lab work emphasizing photography and advanced digital image making. Prerequisite: ART 239.

ART 340 Photography III 3(0-6) F, Sp
Creative work for the advanced student including color printing, use of view cameras and some non-silver processes. Prerequisite: ART 239, ART 240.

ART 341 History of Photography 3(3-0) D
Introductory study of the history of photography from the advent of the camera obscura in the 1550s to the present.

ART 343 Art in the Elementary School Grades K-4 3(3-0) F
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 215, and admission to the Teacher Education Program or permission of instructor.

ART 344 Art in the Middle School Grades 5-8 3(3-0) Sp
An art methods class for the art education major covering developmentally appropriate curricula and content for the middle school student. Prerequisites: ART 105, ART 115, ART 215, and admission to the Teacher Education Program or permission of instructor.

ART 345 Art in the Elementary School 3(3-0) F, Sp
Art for the elementary child; its relationship to curricula and general development of the child will be investigated through lecture, slides, and team teaching experience. Prerequisites: Admission to the Teacher Education Program or permission of instructor.

ART 346 Secondary School Art and Mid-Tier Observation 3(2-2) F
Similar to ART 345, but applicable to the secondary grades. Students enrolled are required to put in a minimum of 2 hours per week in Mid-tier observation. Prerequisite: admission to the Teacher Education program or permission of the instructor.

ART 349 Typography 3(0-6) F, Sp
An intensive survey of the history and application of letterform. Prerequisite: ART 135.

ART 350 Printmaking III 3(0-6) F, Sp
A continuation of Printmaking II with further development of conceptual development and more advanced printing methods within fine art printing. Prerequisites: ART 250.

ART 360 Figurative Sculpture 3(0-6) F, Sp
A continuation and expansion of the basic skills of sculpture. This course focuses on the development and the creation of figurative sculpture. Prerequisite: ART 160.

ART 3614-D: Installation, Performance, and Environmental Sculpture 3(0-6)
An investigation of the contemporary practices, history, and concepts of 3-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) Sp
Survey of the development of the applied arts in material culture from the invention of movable type through the twentieth century. Prerequisites: Sophomore standing or above. (Group IV-A)

ART 370 Fiber Design III 3(0-6) F, Sp
Creating with fiber on and off the loom. Experiences in two- and three-dimensional form. Prerequisite: ART 270.

ART 371 Papermaking 3(0-6) D
Introduction to techniques and aesthetics for making handmade paper for 2-D and 3-D forms including basic bookbinding. Prerequisite: ART 215 or ART 270.

ART 375 Surface Design on Fabric 3(0-6) D
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, or permission of instructor.

ART 380 Greek Art and Architecture 3(3-0) D
The art and architecture of ancient Greece from the Geometric to Hellenistic periods. Prerequisites: ART 185 or permission of instructor.

ART 381 Early Christian and Byzantine Art 3(3-0) D
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) D
Women’s identities as artists, patrons, viewers, and subjects of representation, their changes historically, and their relationship to definitions of art. Identical to WST 382. Credit may not be earned in more than one of these courses.

ART 383 Modern Architecture 3(3-0) D
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) D
An introduction to the visual arts of non-European cultures. Arts of Africa, Oceania, Asia and the Americas. Relations between arts, philosophies, and ways of life will be discussed. Prerequisites: 26 semester hours completed.

ART 385 Art in the Twentieth Century 3(3-0) F
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) D
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 387 Arts of Africa, Oceania, and the Americas 3(3-0) D
Painting, sculpture, architecture, body decoration, textile, costumes, festivals, and ritual in the indigenous cultures of Africa, Oceania, and the Americas.

ART 388 Pre-Columbian Art of the Americas 3(3-0) D
Painting, sculpture, architecture, metalworks, ceramics, masks, textiles, costumes, and festivals of the indigenous inhabitants of the Americas from 2500 B.C. to the Spanish conquest.

ART 397 Special Studies 1-6(Spec) D
In-depth consideration of specialized topics, techniques, and materials in studio, scholarly areas. Prerequisites: 3 credits in Art History, or permission of the instructor.

ART 405 Advanced Drawing 3(0-6) D
Exploring more advanced concepts in drawing techniques, spatial relationships, and personal expression. Prerequisites: ART 105, ART 216.

ART 410 Ceramics IV 3(0-6) F, Sp
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 415 Design IV 3(0-6) F, Sp
Continuance of the problematic approach to the desired effective use of elements and principles of design. Prerequisite: ART 315.

ART 416 Advanced Figure Drawing 3(0-6) F, Sp
Continuation of figure drawing experience at the advanced level. Exploration of figure dynamics, and the application of the theories of foreshortening, and creative composition. Prerequisite: ART 316.

ART 430 Painting IV 3(0-6) F, Sp
Independent inquiry in painting where the mode of expression is consistent. Regular consultation with instructor is required. Prerequisite: ART 330.

ART 435 Print Production for Graphic Designers 3(0-6) F, Sp
Development of print production and portfolio skills in preparation for employment in the communication design field. Prerequisite: ART 335.

ART 437 Designing for the Web 3(0-6) F, Sp
Mastery of design principles as applied to web design. Prerequisites: ART 335, ART 435 concurrently or permission of instructor.

ART 438 Motion Graphics 3(0-6) F
Introduction to computer-aided animation theory and application. Prerequisite: ART 335; or permission of instructor.

ART 440 Photography IV 3(0-6) F, Sp
An individualized studio experience for the advanced photography student, emphasizing project-based assignments, independent work and critiques culminating in a portfolio of work. Prerequisite: ART 340.

ART 445 Special Problems in Art Education 2(1-2) D
Independent study of individual problems in art education.

ART 446 Visual Arts and Aesthetic Education 3(3-0) Sp
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. Prerequisite: ART 349.

ART 450 Printmaking IV 3(0-6) F, Sp
A continuation of Printmaking III with emphasis on conceptual development and advanced printing methods. Development of a fine art print portfolio. Prerequisite: ART 350.

ART 454 Art Workshop 3(0-6) D
Workshop experience in one or more of the following studio areas: ceramics, design, drawing, painting, photography, printmaking, sculpture, graphic design, and fiber design.

ART 460 Contemporary Bronze Casting 3(0-6) F, Sp
A continuation and expansion of ART 260 Making Multiples: Sculpture, this course focuses on the development of skills and the creation of bronze casting. Prerequisite: ART 260.

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) F, Sp
A studio experience developing a greater sensitivity to fibers on and off the loom. Prerequisite: ART 370.

ART 471 BFA Exhibition 1(1-0) F, Sp
Capstone experience for the B.F.A. art student, including an art exhibition of their work, a thesis and strategies for a successful post-graduate career. Prerequisites: Signed Art major and senior standing. Must be taken in one of the last two semesters prior to graduation.

ART 480 Roman Art and Architecture 3(3-0) D
The art of Rome and the Roman world from earliest times to Constantine the Great. Prerequisite: ART 185 or ART 380, or permission of the instructor.

ART 481 Western Medieval Art 3(3-0) D
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) D
An intensive examination of the art and architecture of High Renaissance Italy with emphasis on the works of Leonardo, Bramante, Michelangelo, and Raphael. Prerequisites: ART 285 or permission of instructor.

ART 483 Nineteenth Century European Painting 3(3-0) D
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) T
Travel study course to metropolitan galleries to view and study original works of art.

ART 485 Seminar in Contemporary Art 3(3-0) Sp
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) D
Advanced research in a selected topic. Prerequisites: ART 185, ART 285; permission of instructor.

ART 487 Indigenous Arts of North America 3(3-0) D
A study of the art of Native peoples of North America from the prehistoric to the present. Prerequisites: ART 126 or 3 credits in Art History, or permission of the instructor.

ART 489 Shamanism and Art in Siberia and North America 3(3-0) D
Visual and performing arts as they relate to shamanistic rituals of indigenous peoples of Siberia and North America in the 19-20th centuries. Prerequisites: ART 126 or 3 credits in Art History, or permission of the instructor.

ART 497 Special Studies 1-6(Spec) D
Further study when scholarly/studio adequacy beyond ART 397 is achieved.

ART 499 Senior Seminar 1(1-0) F, Sp
Capstone assessment of the art student’s professional strengths and weaknesses plus refinement strategies for establishing a successful post-graduate career. Prerequisites: Signed Art major and senior standing. Must be taken in one of the last two semesters prior to graduation.

ART 500 Preliminary Studio for Graduate Students 3(0-6) D
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) F, Sp
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 511 Glaze Composition 3(0-6) D
Principles of glaze composition in relation to creative work. Prerequisite: ART 210.

ART 512 Kiln Construction 3(0-6) D
Principles of kiln design, construction techniques, and firing in relation to creative work. Prerequisite: ART 210.

ART 515 Design V 3(0-6) F, Sp
An individualized studio experience in aesthetic order emphasizing theoretical exploration of specific architectural/environmental metaphorical spatial relationships. Prerequisite: ART 415.
ART 516 Advanced Problems in Figure Drawing 3(0-6) F, Sp
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) F, Sp
An individualized studio experience in painting beyond ART 430 competency. Prerequisite: ART 430.

ART 535 Digital Multimedia for Designers 3(0-6) F, Sp
Permits the student to concentrate in depth on the visual development of multimedia CD ROMs using a variety of authoring tools. Prerequisites: ART 435, ART 449.

ART 540 Photography V 3(0-6) F, Sp
An individualized studio experience focusing on personal research of new techniques, processes, materials, history and concepts of traditional and contemporary photography and professional development. Prerequisite: ART 440.

ART 542 Photographic Illustration 3(0-6) D
An exploration of the methodology in constructing and photographing designs for fine arts and commercial graphic arts photography. Prerequisite: ART 440.

ART 543 Alternative Photographic Processes 3(0-6) D
An in-depth exploration of nonsilver photographic processes and their application to fine arts photography. Prerequisite: ART 440.

ART 550 Printmaking V 3(0-6) F, Sp
An individualized studio experience in printmaking beyond ART 450 competency. Prerequisite: ART 450.

ART 556 Independent Studio 1-12(Spec) F, Sp
Open to students who have completed required courses in an area. Permission of area instructor required in metal smithing, painting, photography and film, printmaking, sculpture, weaving.

ART 557 Independent Studio 1-12(Spec) F, Sp
Similar to ART 556.

ART 558 Independent Studio 1-12(Spec) F, Sp
Similar to ART 556.

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) F, Sp
An individualized studio experience in fiber design beyond ART 470 competency. Prerequisite: ART 470.

ART 572 Advanced Papermaking 3(0-6) D
An investigation of advanced techniques and aesthetics for making handmade paper for 2-D and 3-D forms including bookbinding. Prerequisites: ART 371 or graduate status.

ART 575 Surface Design on Fabric II 3(0-6) F
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) T
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) T
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) D
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 or permission of instructor.

ART 597 Special Studies 1-6(Spec) D
Further in-depth graduate study when scholarly/studio adequacy beyond ART 497 is achieved. For 600 and 700 level descriptions consult the current Graduate Bulletin.

ART 605 Graduate Studio in Drawing 1-12(Spec) F, Sp
ART 610 Graduate Studio in Ceramics 1-12(Spec) F, Sp
ART 615 Graduate Studio in Design 1-12(Spec) F, Sp
ART 616 Graduate Studio in Figure Drawing 1-12(Spec) F, Sp
ART 619 Continuing Registration for Final Research Project 1(1-0) D
ART 630 Graduate Studio in Painting 1-12(Spec) F, Sp

ART 635 Graduate Studio in Graphic Design 1-12(Spec) F, Sp
ART 640 Graduate Studio in Photography 1-12(Spec) F, Sp
ART 641 Seminar: History of Photography 3(3-0) D
ART 645 Art Education 3(3-0) D
ART 646 Research in Art Education 3(3-0) D
ART 647 Seminar for In-Service Art Teachers 3(3-0) D
ART 648 Curriculum Development in Art Education 3(3-0) D
ART 650 Graduate Studio in Printmaking 1-12(Spec) F, Sp
ART 660 Graduate Studio in Sculpture 3-12(Spec) F, Sp
ART 670 Graduate Studio in Fiber Design 1-12(Spec) F, Sp
ART 680 Graduate Exhibition and Criticism 6(Spec) D
ART 681 Research Paper in Art Education 3(Spec) D
ART 685 Special Topics in Art History 3(Spec) D
ART 697 Special Studies 1-6(Spec) D
ART 705 Graduate Studio in Drawing 3-12(Spec) F, Sp
ART 710 Graduate Studio in Ceramics 3-12(Spec)
ART 715 Advanced Graduate Studio In Design 3-12(Spec)
ART 719 Art Criticism 3(3-0) D
ART 730 Advanced Graduate Studio In Painting 3-12(Spec) D
ART 735 Advanced Graduate Studio In Graphic Design 3-12(Spec) F, Sp
ART 740 Advanced Graduate Studio In Photography 3-12(Spec) D
ART 750 Advanced Graduate Studio In Printmaking 3-12(Spec) F, Sp
ART 756 Individuated Studio Projects 3-12(Spec) F, Sp
ART 760 Advanced Graduate Studio In Sculpture 3-12(Spec) F, Sp
ART 770 Advanced Graduate Studio In Weaving/Fiber Design 3-12(Spec) D
ART 780 Readings in Greek Art 3(Spec) D
ART 781 Readings in Western European Medieval Art & Architecture 3(Spec) D
ART 782 Readings in Italian Renaissance Art 3(Spec) D
ART 783 Readings in American Art: From Colonial Times to 1913 3(3-0) D
ART 785 Readings In Modern Art 3(3-0) D
ART 786 Readings In Contemporary Art 3(3-0) D
ART 798 Thesis-Exhibition 6(Spec) D

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are the following: ART 556, 557, 558, 597, 697.

American Sign Language (ASL)

ASL 100 Introduction to the Deaf Community and Deaf Culture 3(3-0)
An introduction to the audiological, social, linguistic, and cultural aspects of Deafness and the Deaf Community; basic communication in American Sign Language.

ASL 101 American Sign Language, Level I 3(3-0)
Basic receptive and expressive American Sign Language (ASL) vocabulary and grammatical structure; fingerspelling; and conversational behavior. Basic understanding of Deaf Culture and ASL linguistics.

ASL 102 American Sign Language, Level II 3(3-0)
Basic receptive and expressive ASL vocabulary, grammar, fingerspelling, and conversational behavior. Basic understanding of Deaf Culture and ASL linguistics. A continuation of ASL 101. Prerequisite: ASL 101 or permission of instructor.

ASL 201 American Sign Language, Level III 3(3-0)
Intermediate conversational American Sign Language. Beginning development of intermediate-level receptive and expressive skills. Continued consideration of Deaf Culture and ASL linguistics. Prerequisite: ASL 201 or permission of instructor.

ASL 202 American Sign Language, Level IV 3(3-0)
Further development of intermediate-level receptive and expressive ASL vocabulary, grammar, fingerspelling, and conversational behavior; Deaf Culture and ASL linguistics. Continuation of ASL 201. Prerequisite: ASL-201 or permission of instructor.
Astronomy (AST)

The complete description of Astronomy is found in the Department of Physics in the College of Science & Technology.

Descriptions of courses approved for the University Program appear in italics.

Distance Learning Courses: Courses in the department approved for offering in a distance leaning format include: AST 111, 112

AST 111 Astronomy 3(3-0) F, Sp
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. (Group II-A)

AST 112 Introduction to Astronomical Observations 1(0-2) F, Sp
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- or corequisite: AST 111. (Group II-A)

AST 260 General Astronomy I 4(3-2) F (Even Year)
A mathematical treatment of modern astronomy for majors/minors in the sciences. Coordinate systems, astronomical instruments, time, moon and eclipses, earth as a planet, other solar system objects. Prerequisite: PHY 145 or permission of instructor.

AST 261 General Astronomy II 4(3-2) Sp (Odd Year)
A continuation of AST 260. Stellar astronomy, interstellar matter, galactic structure, galaxies, quasars, cosmology. Prerequisite: AST 260 or permission of instructor.

AST 311 Vistas in Astronomy 3(3-0) D
Descriptive treatment of astronomical topics of most interest. Typical topics include spacecraft results, extraterrestrial life, astroarchaeology, UFOs, pulsars, black holes, quasars, cosmology. Prerequisite: AST 111 or AST 260.

AST 511 Astronomy for Teachers 3(2-2) D
Teaching astronomy in the elementary, middle, and secondary schools. Appropriate subject matter, student activities, demonstrations, experiments, sources of astronomical materials, planetarium utilization. Prerequisite: AST 111.

AST 562 Observational Astronomy 4(3-2) F (Odd Year)
Celestial mechanics, astronomical instruments, and the techniques of astronomical direct imaging, photometry, and spectroscopy. Prerequisite: PHY 322; AST 260 or AST 261; or permission of the instructor.

AST 563 Astrophysics 3(3-0) Sp (Even Year)
Stellar atmospheres, stellar interiors, interstellar matter and topics of current interest. Prerequisites: AST 261; PHY 332; or permission of instructor.

AST 590 Independent Study 1-6(Spec)
Individual study in an area not covered in regular courses. Prior permission of the instructor must be obtained. Prerequisites: AST 260 and permission of instructor.

Credit Limitation. Courses in astronomy that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are the following: AST 590.

Athletic Training (ATR)

The complete description of Athletic Training is found under the Athletic Training/Sports Medicine Major.

ATR 180 Introduction to Athletic Training 2(2-0) F, Sp
An introduction to the profession of athletic training and the role of certified athletic trainers as health care providers.

ATR 190 Fundamentals of Injury Prevention 2(2-0)
Identification of injury risk factors encountered by athletes and others involved in physical activity, and strategies to plan an injury prevention program will be investigated. Prerequisites: none.

ATR 282 Anatomical Aspects of Athletic Training 3(3-0) F, Sp
The role and application of anatomy to the evaluation and assessment process. Prerequisite: HSC 211 or HSC 214.

ATR 283 Athletic Training Directed Observation 1(Spec) F, Sp
Clinical experiences and observations designed to enhance knowledge and skills of athletic trainers in the delivery of health care to athletes. CR/NC only. Prerequisite: ATR 282.

ATR 310 Athletic Training Clinical I 1(Spec) F, Sp
An introduction to the clinical education environment and clinical decision-making. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: selection to the Athletic Training/Sports Medicine program. Co-requisites: ATR 311, ATR 380, ATR 381.

ATR 311 Theory and Application of Preventative Devices 1(Spec)
Theory, selection, and application of preventative devices which includes various taping/wrapping techniques and protective equipment. Prerequisite: selection into the Athletic Training Education Program. Co-requisite: ATR 310.

ATR 320 Athletic Training Clinical II 1(Spec) F, Sp
Second clinical education course integrating clinical decision-making and clinical practice. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: ATR 310. Co-requisites: ATR 321, ATR 382, ATR 383.

ATR 321 Reconditioning Principles in Athletic Training 1(Spec)
Application of advanced principles of reconditioning for the purpose of strength, conditioning, and performance enhancement in athletic training. Prerequisite: ATR 310. Co-requisite: ATR 320.

ATR 380 Athletic Training Assessment I 3(2-2) F, Sp
Knowledge, skills and values necessary to conduct an assessment, recognize signs/symptoms and formulate an impression to determine proper care of injuries/illnesses to physically active individuals. Prerequisites: selection into the Athletic Training/Sports Medicine program. ATR 381 must be taken concurrently.

ATR 381 Athletic Training Therapeutics I 3(2-2) F, Sp
Introduction to the basic knowledge, skills and values to plan, implement, document and evaluate the efficacy of a treatment, and rehabilitation/reconditioning plan. Prerequisites: selection to the Athletic Training/Sports Medicine program. ATR 380 must be taken concurrently.

ATR 382 Athletic Training Assessment II 3(2-2) F, Sp
Continuation of ATR 380, Athletic Training Assessment I. Assessment, recognition of signs/symptoms, and formulating an impression of injuries/illnesses. Prerequisites: ATR 380, ATR 383 must be taken concurrently.

ATR 383 Athletic Training Therapeutics II 3(2-2) F, Sp
Continuation of ATR 381. Athletic Training Therapeutics I. Advanced knowledge, skills and values of physical agents and exercise techniques. Prerequisites: ATR 380 and ATR 381. ATR 383 must be taken concurrently.

ATR 384 Pharmacology for Health Professions 2(2-0)
Basic pharmacological principles of therapeutic medications, prescription and over-the-counter, and how they assist with treating symptoms associated with illness and injury. Prerequisites: 56 semester hours completed; HSC 215 or BIO 392.

ATR 430 Athletic Training Clinical III 1(Spec) F, Sp
Third clinical education course integrating clinical decision-making and clinical practice. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: ATR 320. Co-requisite: ATR 431.

ATR 431 Cultural Considerations in Athletic Training 1(Spec)
Cultural behaviors and issues confronting the athletic trainer. Prerequisites: ATR 320. Co-requisite: ATR 430.

ATR 440 Athletic Training Clinical IV 1(Spec) F, Sp
Fourth clinical education course integrating clinical decision-making and clinical practice. Students participate in a clinical field experience under the supervision of a clinical instructor. CR/NC only. Prerequisite: ATR 430. Co-requisite: ATR 441.

ATR 441 Professional Development 1(Spec)
The course content and activities will prepare participants for athletic training internship and NATA/BOC examination. Prerequisites: ATR 430. Co-requisite: ATR 440.

ATR 480 Health Care Administration in Athletic Training 3(3-0) F
Prepares athletic training students to develop and administer programs and manage facilities that provide health care services to athletes and other physically active individuals. Prerequisites: ATR 382 and ATR 383.

ATR 481 Athletic Training Practicum 3(Spec)
A capstone experience applying previous didactic and clinical knowledge in a practical, "on-the-job" environment. Can only be taken in conjunction with a student-teaching experience. Prerequisite: ATR 440.

ATR 482 Athletic Training Internship 3(2-0) F, Sp
A capstone experience applying previous didactic and clinical knowledge in a practical, "on-the-job" environment. Prerequisite: ATR 440.

Broadcast and Cinematic Arts (BCA)

The complete description of the Department of Broadcast and Cinematic Arts is found in the College of Communication & Fine Arts.

Descriptions of courses approved for the University Program appear in italics.

BCA 210 Survey of the Mass Media 4(4-0) F, Sp, Su
Examination of historical, political, economic, social, and legal evolution of the mass media with special emphasis on electronic media. Open to all students.

BCA 222 Audio Production 3(3-0) F, Sp, Su
The art and craft of studio and remote audio production. Prerequisite: BCA 210 with a grade of C or better.
Prerequisite: sophomore status.

BCA 223 Video Production 3(1-4) F, Sp, Su
Introduction course in video studio systems. Emphasis on structuring and integrating the various production elements that comprise video presentations. Prerequisite: BCA 210 with a grade of C or better.

BCA 288 History and Appreciation of the Cinema 3(2-2) F, Sp, Su
History and critical analysis of outstanding fiction films and filmmakers. Innovations from early silent films to the present. (Group I-A)

BCA 290 French Film and Other Media 3(3-0) D
French cinema in historical and cultural context; works of Gance, Clair, Renoir, Carne and New Wave; overview of other media; includes field trip to France. (Taught in English. Does not count toward the French major or minor.) Prerequisites: Not open to first semester freshmen. Because the course involves international travel, all students must apply through the Office of International Education. (Group I-A)

BCA 300 African and African American Film 3(3-0) Sp
Examination of films by and about Africans and African Americans. First part of course deals with African and second part with African American films. Prerequisite: sophomore status. (Group I-B)

BCA 310 Broadcast History and New Media Technology 3(3-0) F, Sp
History of U.S. broadcasting with an emphasis on industrial, social, policy, and technological changes in electronic media. Prerequisite: BCA 210 with a grade of C or better.

BCA 311 Broadcast and Cable Copywriting 3(3-0) F, Sp, Su
Practice in the pervasive short forms of audio and video writing: commercials, continuity, public service announcements, and campaign evolution. Prerequisite: ENG 101 with a grade of B or better or ENG 201 with a grade of B or better.

BCA 317 Radio and TV Performance 3(2-2) F, Sp
Study of, and laboratory experience in, common electronic mediaperformance situations. Prerequisite: BCA 210 with a grade of C or better.

BCA 318 Radio and Television News 3(3-0) F, Sp
Techniques and principles of writing and producing news copy for electronic media. Identical to JRN 318. Credit may not be earned in more than one of these courses. Prerequisites: ENG 101 with a grade of B or better or ENG 201 with a grade of B or better.; BCA 210 with a grade of C or better.

BCA 320 Special Topics in Mass Media 1-9(Spec) D
Current topics listed in semester Schedule of Classes. Repeatable when content does not duplicate previous special topics studies. Maximum credit, 9 hours. Prerequisites: BCA 210 with a grade of C or better; or permission of instructor.

BCA 329 Practicum in Electronic Media 1-8(Spec) F, Sp, Su
Directed experience at departmental broadcast, cable and electronic news facilities. Maximum of 8 hours applicable to degree program. Only 4 hours can count toward a BCA major and 2 hours toward a minor. CR/NC only. Prerequisite: permission of instructor.

BCA 415 Television Advertising Production 3(3-0) Su
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, BCA 223, BCA 311 all with a grade of "C" or better.

BCA 421 Advanced Audio Production 3(2-2) F, Sp
Study and practice in stereophonic and multitrack recording, mixing, and editing for media and industry. Prerequisites: BCA 222 with a grade of "C" or better.

BCA 422 Intermediate Video Production 3(2-2) F, Sp
Intensive hands-on broadcast, cable, and corporate video production with concentration on the acquisition of studio and field production skills. Prerequisite: BCA 223 with a grade of "C" or better.

BCA 490 Independent Study 1-4(Spec) F, Sp, Su
Student-initiated study guided by faculty or committee faculty. Maximum of 4 hours may be applied to degree. Does not fulfill requirements for a minimum of 6 (6) 400-500 level hours of electives in major. Prerequisite: 3.0 overall GPA; permission of instructor.

BCA 499 Senior Seminar 1(2-2) F, Sp, Su
Capstone assessment of the student's professional strengths and weaknesses including the development of strategies for achieving 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) F, Sp, Su
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 505 Advanced Electronic Media Writing 3(3-0) Sp
Intensive work in refining copy and full-length scripts. Audio and video writing strategies and coordination skills with special emphasis on the functioning of the creative team. Prerequisite: BCA 311; limited to juniors or above.

BCA 510 Broadcast and Cable Law 3(3-0) F, Sp, Su
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 Broadcast and Cable Sales 3(3-0) F, Sp
Organizational systems and processes of radio, television, and cable sales. Emphasis on selling techniques found most reliable in modern sales practices. Prerequisite: BCA 210 with a grade of C or better; limited to juniors or above.

BCA 512 Broadcast and Cable Promotion 3(3-0) F, Sp, Su
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 with a grade of C or better; BCA 311; limited to juniors or above.

BCA 515 Sports Broadcasting 3(2-2) Sp
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) F
Management in contemporary telecommunications settings. Prerequisite: Limited to juniors or above; permission of instructor.

BCA 517 Advanced Audio and Video Performance 3(2-2) F
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 or permission of instructor.

BCA 518 Advanced Radio and Television News 3(2-2) Sp
Techniques of news gathering, reporting, and interviewing for electronic media. Prerequisite: BCA 318 or JRN 216; limited to juniors or above.

BCA 519 Electronic Media Programming 3(2-2) F
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) D
Current topics for each semester listed in the Schedule of Classes. 3 hours each; maximum credit, 9 hours. Prerequisite: permission of instructor; limited to juniors or above.

BCA 521 Electronic Cinematography 3(2-2) F
Theory and practice in the production of short and long form narrative video, with emphasis on the aesthetic aspects of lighting, direction, and editing. Prerequisites: BCA 223, BCA 422 with a grade of "C" or better in each; or permission of instructor.

BCA 522 Multimedia Audio Post-Production 3(2-2) Sp
Advanced recording, editing, sweetening, synchronizing and mixing of audio for selected electronic broadcast and multimedia applications. Prerequisites: BCA 223, BCA 421 with a grade of "C" or better in each; or permission of instructor.

BCA 524 Producing Television News 3(1-4) F, Sp
A practical approach to producing news. Encompasses gathering, writing, producing, and directing news programming over local cable outlets. Prerequisite: BCA 318 or BCA 223, or permission of instructor; limited to juniors or above.

BCA 525 Film Genre Study 3-9(Spec) D
In-depth examination of selected film genres, themes, and trends. Repeatable up to 9 hours when content previously studied is not duplicated. Limited to juniors or above.

BCA 527 Film Directors 3-9(Spec) D
In-depth examination of selected film directors with focus on their themes, visual style, and lives. Critical analysis of films viewed is emphasized. Repeatable up to 9 hours. Prerequisites: BCA 288 or permission of instructor; limited to juniors or above.

BCA 528 History and Analysis of Nonfiction Film 3(2-2) Sp
History and techniques of the nonfiction film and video. Historical and contemporary examples including news reels, propaganda films, and television documentaries.

BCA 529 Internship in Radio-TV-Film 2-6(Spec) F, Sp, Su
Directed work experience at participating stations, advertising agencies, and other media venues. Students may count a maximum of 6 hours toward a major and 3 hours toward a minor. 2.5 GPA required. Does not fulfill requirement for a minimum of 6-400-500 level hours of electives in major. Prerequisites: prior written approval of BCA Intern Director; limited to juniors or above; open only to signed BCA majors or minors.

BCA 531 Corporate Video/Media Production 3-2-2 Su
Lecture and intensive hands-on theory, design and production of video and interactive programming specifically for and within institutional corporate settings. Prerequisites: BCA 210, BCA 422; or permission of instructor.

BCA 532 Advanced Video/Multimedia Post-Production 3-2-2 Sp
Lecture and intensive hands-on theory, design and production of multimedia and interactive digital video, with emphasis on advance post-production technologies and techniques. Prerequisites: BCA 223, BCA 422 with a grade of "C" or better in each; or permission of instructor.

BCA 560 Radio Operations I 3(1-4) F
Preparation and performance in radio broadcast practices, emphasizing daily operations, writing, logging, and production procedures. Summer Session I only. Laboratory hours arranged with instructor. Prerequisites: Minimum 2.25 GPA, BCA 222 or BCA 317; or permission of instructor.
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 218; a GPA of 2.7 in biology classes.
BIO 305 Entomology 3(2-3)
Structure, function, natural history, and control of insects. Identification to family level. Insect collection required.
BIO 306 Natural History of Vertebrates 3(2-3)
Collection, identification, museum specimen preparation, and life-history studies of vertebrates through field and laboratory experiences.
BIO 310 Ornithology 3(2-3)
An introduction to avian biology emphasizing evolution, systemsatics, and the annual cycle. Identification, song, and general ecology are studied through field trips and laboratory work.
BIO 312 Life Manipulations 3(3-0)
Current technology and the ethical implications of issues such as contraception, artificial insemination, in vitro fertilization, cloning, genetic engineering, abortion, and euthanasia. Prerequisite: Completion of Group II requirements of the University Program.
BIO 315 Human Genetics 3(3-0)
Inheritance in man, including genetic mechanisms, human populations, medical syndromes, eugenics, and genetic counseling. Does not count toward biology major.
BIO 322 Bacteriology 4(2-4)
The biology of bacteria with an emphasis on the relationship of bacteria to man and the environment. Laboratory techniques will be strongly stressed. Prerequisite: BIO 208 or permission of instructor.
BIO 324 Cell Biology 3(3-0)
Cell structure, nature and function of cellular organs, the plasma membrane, cell cycle, cell aging. Prerequisite: 12 hours of biology; CHM 120, CHM 127, and CHM 342 (may be taken concurrently); OR CHM 131 and CHM 132; OR CHM 161 and CHM 211.
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 102; 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. Prerequisite: 9 hours of biology.
BIO 329 General Plant Morphology 3(2-3)
An introduction to 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. (Group II-A)
BIO 101 General Biology 3(2-2)
Prerequisites: 12 hours of biology; CHM 120, CHM 127, and CHM 342 (may be taken concurrently); OR CHM 131 and CHM 132; OR CHM 161 and CHM 211.
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. (Group II-B)
BIO 151 Human Biology 3(3-0)
Prerequisites: BIO 208, BIO 218; a GPA of 2.7 in biology classes.
BIO 151 Human Biology 3(3-0)
An introduction to human biology including the cell, genetics, sexuality, structure, and function of the skeletal-muscular, digestive, circulatory, excretory, and nervous systems. No previous background in science required. This course may not be used to satisfy the requirements for a Biology major or minor. (Group II-A)
BIO 197 Special Topics in Biology 1-6(Spec)
Prerequisite: See class schedule.
BIO 203 General Botany 3(2-3)
Fundamental structure and physiology of plants. Prerequisite: BIO 101 or BIO 105.
BIO 206 Microbiology 3(2-3)
The biology of microorganisms: viruses, bacteria, actinomycetes, fungi, algae, and protozoa. Prerequisite: BIO 101 or BIO 105.
BIO 218 General Zoology 3(2-3)
A general survey of the animal kingdom with emphasis on phylum, taxonomy, structure, physiology, and ecology of type examples of the major phyla. Prerequisite: BIO 101 or BIO 105.
BIO 223 Applied Botany 3(2-2)
Plant culture and propagation, with emphasis on indoor species.
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 approach to the characteristics, problems, and uses of soil, water, forests, wildlife, and other natural resources, with special emphasis on Michigan. (Group II-A)
BIO 261 Water Conservation 1(Spec)
Man's use and misuse of water and our future needs of this resource are reviewed. Management strategies and rehabilitation techniques for this resource are discussed. Two week duration only. Prerequisite: BIO 240.
BIO 362 Forest Conservation 1(Spec)
A practical follow-up to BIO 240 concentrating on the tools and techniques used in forest measurement, harvest, and conservation. Two week duration only. Prerequisite: BIO 240.

BIO 363 Fisheries Conservation 1(Spec)
A practical follow-up to BIO 240 emphasizing the tools and general techniques used in management to best conserve our fisheries resources. Two week duration only. Prerequisite: BIO 240.

BIO 364 Wildlife Conservation 1(Spec)
A practical follow-up to BIO 240 dealing specifically with the wildlife resource. Two week duration only. Prerequisite: 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 (CHM 342 and BIO 240 recommended), or permission of instructor.

BIO 366 Freshwater Biology 3(2-3)
An introduction to the ecology of freshwater systems with an emphasis on the natural history, identification, and collection of freshwater organisms. Prerequisite: 6 hours of biology.

BIO 391 Plant Physiology 4(3-3)
The physical and chemical basis of plant structure and function. Prerequisite: CHM 120, CHM 127, and CHM 342 (may be taken concurrently); OR CHM 131 and CHM 132; OR CHM 161 and CHM 211; or equivalent.

BIO 392 Mammalian Physiology 4(3-3)
The functioning of the mammalian body and its component parts. Prerequisite: CHM 120, CHM 127, and CHM 342 (may be taken concurrently); OR CHM 131 and CHM 132; OR CHM 161 and CHM 211; or equivalent.

BIO 397 Special Topics in Biology 1-9(Spec)
Prerequisites: See Class Schedule.

BIO 403 Undergraduate Research 3-4(Spec)
Open to seniors and selected juniors, majoring in biology, who have completed 20 hours with a B average. Philosophy, techniques, and methods of research. See instructor by the middle of the semester prior to enrollment to design the project and sign the contract. 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)
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 PSY 487. Credit may not be earned in more than one of these courses. Prerequisites: Signed Neuroscience Major and prior or concurrent neuroscience research experience through BIO 403 or PSY 496 (or equivalent).

BIO 495 Undergraduate Internship in Biology 1-4(Spec)
An in-depth, work experience in the student's area of interest performed under a trained professional in the selected area of biology for 6 to 24 weeks. Prerequisites: The student must have junior standing with a minimum of a 3.0 grade point average in biology and completed at least 20 credit hours before being eligible for the internship program. Students not meeting these requirements may petition for a waiver through their advisor and the department chair.

BIO 497 Special Topics in Biology 1-9(Spec)
Prerequisites: See Class Schedule.

BIO 500 Biological Statistics 3(2-2)
An introduction to biological statistics; emphasis on concepts of descriptive statistics and central tendency, inferential statistics. ONE-WAY ANOVA and correlation/linear regression. Prerequisites: Twelve (12) hours of biology or permission of instructor; math competency equivalent to MTH 130 recommended.

BIO 501 Evolution 3(2-0)
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 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(2-4)
Anatomy, taxonomy, physiology, natural history, and ecology of fishes with laboratory emphasis on fishes of the Great Lakes region. Prerequisites: BIO 218 or equivalent.

BIO 510 Fisheries Biology 4(2-2)
Analysis of fish populations, management of fisheries resources, and other problems related to freshwater fisheries. Prerequisites: BIO 509.

BIO 511 Aquatic Insects 3(1-4)
Natural history and systematics of freshwater insects. Prerequisite: one year of biology including introductory entomology.

BIO 513 Plant Taxonomy 3(2-3)
Plant taxonomy with attention to plants of the Mount Pleasant area. Prerequisite: 6 hours of botany.

BIO 516 Computers In the Biological Sciences 3(2-3)
Application of field data to procedures of programming and application of data to model structures whenever possible. Elementary mathematics required. Prerequisites: Working knowledge of a language such as BASIC, FORTRAN, PL-1, PASCAL.

BIO 518 Animal Behavior 3(2-3)
Behavior in invertebrate and vertebrate organisms related to genetics, morphology, and the ecology of animal populations. Prerequisite: one year of biology.

BIO 523 Fresh Water Algae 4(2-4)
Taxonomy, morphology, and ecology including analysis and collection methods.

BIO 524 Molecular Biology 4(3-3)
Molecular basis of genetics and genetic expression primarily in prokaryotes and techniques of recombinant DNA technology. Laboratory includes nucleic acid purification and recombinant DNA procedures. Prerequisites: BIO 208, BIO 326, CHM 346, CHM 522 (may be concurrent); or permission of instructor.

BIO 525 Plant Ecology 4(2-4)
A study of plants emphasizing physical and biotic interrelationships, and factors which govern their distribution. Field work stressed. Prerequisites: BIO 340; a plant identification course highly recommended.

BIO 526 Limnology 3(3-0)
Factors contributing to the biological productivity of fresh water habitats and the relationship of different factors that influence biological productivity in lakes and streams. Prerequisites: BIO 340; one year of college chemistry recommended; or permission of instructor.

BIO 527 Limnological Methods 2(0-4)
A quantitative examination of the physical, chemical and biological aspects of lake ecosystems. This course is designed to accompany BIO 526. Prerequisites: BIO 526 (co-requisite).

BIO 531 Aquatic Vascular Plants 3(2-3)
Classification, ecology, and importance of aquatic vascular plants and their role in fisheries problems, wildlife management, and limnology.

BIO 534 Endocrinology 3(2-3)
A study of the ductless glands and their secretions and their influence on the body. Prerequisite: BIO 403 or BIO 496.

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. A knowledge of aseptic techniques is strongly recommended. Prerequisites: BIO 326 and CHM 521.

BIO 538 Anatomical Preparations 2(1-3)
Practical techniques involved in the preparation of dry skeletal material, limb-muscle units, differential staining, air-dried viscera, latex injection, plastic embedding and freeze drying of vertebrate specimens. Prerequisites: BIO 101 or BIO 105 and BIO 218 or BIO 337; or permission of instructor.

BIO 541 Wildlife Biology and Management 4(2-4)
A study of the basic ecological principles and the varied techniques utilized in managing the wildlife resource. Prerequisite: Permission of instructor.

BIO 543 Medical Parasitology 3(2-3)
The study of the protozoan, helminth, and arthropod parasites of man. Designed for paramedical and laboratory technology students. Prerequisite: BIO 208 or BIO 218.

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 549 Serology 3(2-3)
Survey of extant amphibia 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 4(2-4)
Principles and practice of biological confocal laser scanning microscopy, including sample preparation and the use of molecular probes. Prerequisites: BIO 354 or permission of instructor.

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 3(2-3)
Identification and other characteristics of Michigan evergreen and deciduous woody plants, both native and cultivated. Prerequisite: BIO 203.

BIO 558 Natural Resources Management 2(Spec)
Fish and wildlife research and management, forest management, river degradation, wetland values, and resource interpretation. Much of the course will consist of field trips with resource specialists from the Michigan Department of Natural Resources.

BIO 559 Field Botany 3(2-3)
The collection, identification, and preparation of herbarium specimens from the local flora. Prerequisites: BIO 203.

BIO 560 Avian Ecology 3(2-3)
Relationships among behavior, community organization and ecology of birds are examined through investigative field work. Prerequisites: BIO 340; BIO 310 recommended.

BIO 561 Wetland Ecology 3(2-3)
Wetland systems classification and characterization in North America; includes ecological evaluation of wetland soil, water, plants, plant communities, animals, animal communities, values, destruction, conservation, management. Prerequisite: BIO 340 or permission of instructor.

BIO 573 Forest Ecology and Management 3(2-3)
Physical and biological factors affecting the growth, distribution, and development of trees and forests. Outdoor laboratories stress techniques for forest measurement, manipulation, harvest, and regeneration. Prerequisites: BIO 340 and BIO 557, or permission of instructor.

BIO 576 Animal Cell Culture 4(1-6)
Practical aspects of animal cell culture, including media preparation, aseptic manipulation of cell culture, cell maintenance, and cell storage. Prerequisites: BIO 392 or equivalent.

BIO 577 Hematology and Immunohematology 3(2-3)
Concepts of hematopoiesis and immunohematology, including cell counts and white cell morphogenesis, physiology and pathophysiology. Clinical techniques and procedures commonly used in hematological evaluation. Prerequisite: BIO 392.

BIO 580 Medical Microbiology 4(2-4)
Focuses on relationships between humans and pathogenic microbes. Covers major groups of medically important microorganisms, pathological consequences of infection, diagnostic procedures, and clinical case problem-solving. Prerequisites: BIO 208 and BIO 392 (or equivalent), or permission of instructor.

BIO 590 Cardiovascular Physiology 3(3-0)
Basic principles of normal mammalian cardiovascular physiology. Prerequisite: BIO 392 or equivalent.

BIO 591 Neurophysiology 3(3-0)
Study of the basic principles responsible for nervous system function. Includes discussion on the structure, electrophysiology, and biochemistry responsible for neural activity and senses. Prerequisites: BIO 392 or equivalent.

BIO 594 Advances In Natural Resources Conservation 2(2-0)
An intensive field or library study after which data are presented orally to the class and in the form of a paper. Prerequisite: BIO 240 or BIO 338.

BIO 597 Special Topics In Biology 1-9(Spec)
Prerequisite: See Course Offering Guide or Class Schedule.

For 600 and 700 level course descriptions consult the current Graduate 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 3(3-0)

BIO 651 Topics in Ethology 1-3(Spec)

BIO 652 Behavioral Ecology 3(2-3)

BIO 653 Stream Ecology 3(2-3)

BIO 666 Fish Ecology 2(2-0)

BIO 667 Fisheries Management 2(2-0)

BIO 668 Zooplankton Biology 3(2-3)

BIO 670 Conservation Biology 3(3-0)

BIS 101 Introduction to Business 3(3-0) F, Sp
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 102 Introduction to Business Computer Operations 3(3-0) F, Sp
Introduction to computer operations and use of common software packages in personal and professional environments. Covers word processing, spreadsheets, databases, and computer networks. Prerequisites: BUS 100 with a 2.0 (C) or better.

BIS 103 Introduction to Business Information Systems 3(3-0) F, Sp
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 101. Credit may not be earned in more than one of these courses. (Group IV-A)

BIS 105 Word Processing Concepts 1(1-0) D
Introduction to word processing and desktop publishing concepts. Features common to most word processing software. Evaluation of software packages. Identical to CPS 105. Credit may not be earned in more than one of these courses. Prerequisites: BIS 112 or equivalent.

BIS 106 Spreadsheet Concepts 1(1-0) D
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. Prerequisites: BIS 112 or equivalent.

BIS 107 Database Concepts 1(1-0) D
Introduction to databases and database management systems. 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. Prerequisites: familiarity with microcomputer use.

BIS 108 Computer Graphics Concepts 1(1-0) D
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. Prerequisites: familiarity with microcomputer use.

BIS 109 Phonics Notetaking 1(1-0) D
Development of rapid writing skill using a phonics system. Emphasis on personal notetaking, listening, and summarizing ideas.
BIS 111 Computer Communication Concepts 1(1-0) D
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. Prerequisites: Familiarity with use of a computer.

BIS 112 Beginning Keyboarding 1(1-0) D, F, Sp
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) D, F, Sp
Introduction to word processing using current software. Continued development of skill in straight-copy keyboarding and skill in producing business documents. Prerequisite: BIS 112 or equivalent; a keyboarding skill of 25 wpm.

BIS 147 Introduction to SAP Enterprise Software 1(1-0) D
Concepts and fundamental framework of business enterprise software are introduced using SAP. The SAP technical structure is examined. Prerequisites: BIS 104 or equivalent.

BIS 190 Entrepreneurship for Small Business 3(3-0) D
Basic entrepreneurship information. For non-business students only. Prerequisite: permission of instructor.

BIS 197 Special Studies in Business Information Systems 1-12 (Spec) D
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student's transcript. Prerequisite: permission of department chairperson.

BIS 212 Advanced Word Processing Applications 3(3-0) D
Development of advanced information processing skills and techniques using integrated word processing software. Prerequisites: keyboarding skill level of 30 gross words a minute; transfer credit not accepted.

BIS 221 Computers in Business I 3(3-0) D, F, Sp
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) D
Detailed programming of specific areas in accounting involved in information systems (accounts receivable, payroll, sales analysis). Prerequisite: BIS 221 or ACC 201 or equivalent.

BIS 228 Computer Programming—COBOL 3(3-0) F, Sp
Introduction to the COBOL language with a high emphasis on applications in the field of business. Prerequisites: BIS 221.

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. Prerequisites: BIS 221 or equivalent.

BIS 251 Field Experience in Business Education 1(Spec)
Individual full-time assignment in a public school for two weeks of onsite observation and participation under the supervision of the department and a secondary business teacher. Satisfies the middle-tier field experience for business teacher education majors. CR/NC only. Prerequisites: Permission of instructor; EDU 107; 41 semester hours completed.

BIS 255 Information Systems 3(3-0) F, Sp
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 II Admission to Professional Business Studies. Corequisite: ACC 255.

BIS 280 Office Information Processing 3(3-0) F
Applications in electronic and magnetic keyboarding, editing, transcription, and related office activities. Transfer credit not accepted for BIS 280. Prerequisite: BIS 212 or equivalent.

BIS 288 Business Computer Graphics 3(3-0) D
Designing, developing, and editing of computer-generated, business-oriented graphics to enhance display of multimedia presentations of documents. Prerequisites: BIS 221.

BIS 297 Special Studies in Business Information Systems 1-12(Spec) D
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student's transcript. Prerequisite: Permission of department chairperson.

BIS 300 Software Applications in Business 3(3-0) F, Sp
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) F, Sp
The advanced study of business computer information systems, including transaction processing, management information systems, and systems design and analysis. Prerequisites: BIS 221 or equivalent, or permission of department chair; 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) D
Development of business applications using the Visual Basic programming language with emphasis on issues involved in designing and deploying information technology in organizations. Prerequisites: BIS 228 or equivalent; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor or with the approval of the Office of Undergraduate Business Studies.

BIS 327 Web Site Development 3(3-0)
Development of Internet and intranet web sites to support business functions including doing business on the Internet with emphasis on issues involved in designing and deploying this information technology by organizations. Prerequisites: BIS 221 or equivalent; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 328 Structured Program Design 3(3-0) F, Sp
Application development of file-oriented systems. On-line, interactive programming with emphasis on man-machine dialogues, file processing, table manipulation, and the use of vendor supplied reference materials. Prerequisites: BIS 228 or equivalent; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 350 Principles of Business Education 3(3-0)
Curriculum, career education, planning, competency-based education, learning and teaching theory in business education with emphasis on the basic business subjects and computer literacy. BIS 350 is required before student teaching. Prerequisites: 56 semester hours completed; admission to Teacher Education Program; admission to Professional Business Studies or listed on a signed major or minor.

BIS 351 Methods of Teaching Keyboarding/Word Processing 1-1(F)
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; majors: BIS 297 or concurrent enrollment; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 352 Methods of Teaching Office Cluster 1-1(F)
Content, objectives, materials, testing, grading, visual aids, equipment, and processes for teaching office information systems in the office cluster. Must be taken before student teaching. Prerequisites: majors and minors: BIS 212; BIS 280; majors: BIS 350 or concurrent enrollment; and 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 353 Methods of Teaching Secondary Accounting 1-1(F)
Content, objectives, materials, evaluation, visual aids, equipment, and methods of teaching secondary accounting. Must be taken prior to student teaching. Prerequisites: majors and minors: ACC 201; majors: BIS 350 or concurrent enrollment, and 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 356 Methods of Teaching Secondary Marketing 1-1(F)
Content, objectives, materials, evaluation, visual aids, textbook evaluation, equipment, and methods for teaching marketing and distributive education subjects. Must be taken prior to student teaching. Prerequisites: majors and minors: MKT 220 and MKT 325, or concurrent enrollment; majors: MKT 300, BIS 350 or concurrent enrollment; 56 semester hours completed; and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 357 ABAP/4 Programming Fundamentals 3(3-0)
Application of ABAP/4 programming language to meet business requirements within the SAP R/3 system as an example of a development workbench for contemporary enterprise software. Prerequisites: BIS 228, BIS 247; 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 360 Business Communication 3(3-0) F, Sp, Su
Development of an understanding of the communication process through business letters, memorandums, business reports, and oral presentations. Prerequisites: ENG 201; 56 semester hours completed.

BIS 370 Office Management 3(3-0) F, Su
An overview of the management and organization of the business office. Prerequisites: 56 semester hours completed and either admission to Professional Business Studies or listed on a signed major or minor.

BIS 392 Writing Your Business Plan 3(3-0) D
A written business plan will be developed describing a potential business or venture, industry trends, marketing strategies, management plans, financial analysis, and how to put it all together in order to present the plan to a banker. Prerequisites: 56 semester hours earned and be in the semester of completion of the entrepreneurship minor.

BIS 397 Special Studies in Business Information Systems 1-12(Spec) D
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student's transcript. Prerequisites: permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.
BIS 401 Cooperative Occupational Experience 3(3-0) F, Sp
Office work experience under the supervision of the department and participating employer. Includes scheduled classroom instruction. Prerequisites: BIS 280 or concurrent enrollment, or permission of the instructor; 56 hours completed; either admission to Professional Business Studies or listed on signed major or minor.

BIS 420 Systems Analysis and Design 3(3-0) F, Sp
Fundamentals of business systems analysis and design; study of present system, developing system alternatives. Prerequisites: BIS 221 or equivalent; 56 semester hours completed; either admission to Professional Business Studies or listed on signed major or minor.

BIS 422 Data Base Management Systems 3(3-0) F, Sp
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) F, Sp
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 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 signed major or minor.

BIS 425 Business Systems Applications 3(3-0) F, Sp
Study of the broad concepts involved in the design and development of information systems. Prerequisites: BIS 420, BIS 422; 86 semester hours completed; either admission to Professional Business Studies or listed on signed major or minor.

BIS 445 Small Business Organization and Operation 3(3-0) D
Practical study of location, layout, organization, buying, and merchandising as applied to marketing education. Project method will be used. Prerequisites: MGT 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) D
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) D
Concepts and applications 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) D
Applying advanced theory and psychology to business communication. Emphasis on the acquisition and application of communication theory and skill necessary for success in the global business environment. Prerequisites: BIS 360 or a 200- or higher-level writing course from outside the College of Business Administration; 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 470 Business Report Writing 3(3-0) D
Communication of information by written reports as a logical approach to solving business problems. Prerequisites: BIS 360; 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 475 Records Management and Control 3(3-0) F
Underlying principles and procedures - analysis, application, evaluation of records management; information storage, retrieval and disposition systems and programs. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 480 Telecommunications Management 3(3-0) F, Sp
Management issues and practical business applications in telecommunication as well as telecommunications technology, policies, careers, and education. Prerequisites: 56 semester hours completed; either admission to Professional Business Studies or listed on a signed major or minor.

BIS 485 Office Systems 3(3-0) Sp
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) D
Student-initiated study guided by a faculty member. Prerequisites: 86 semester hours completed; minimum GPA of 3.0; permission of department chairperson; either admission to Professional Business Studies or listed on signed major or minor.

BIS 492 Practicum in Small Business 3(Spec) F, Sp
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) D
Selected topics of interest which are not normally included in existing courses. Specific topic will be listed on student's transcript. Prerequisites: permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on signed major or minor or with approval from the Office of Undergraduate Business Studies.

BIS 503 Curriculum in Business Education 3(3-0) D
Principles and procedures for developing and refining computer-related skills and knowledge for solving business problems. Maximum of 6 hours apply to MBE. Prerequisites: admission to MBE or permission of department chairperson.

BIS 597 Special Studies in Business Information Systems 1-12(Spec) D
Special topics of interest which are not normally included in existing courses. Specific topic will be listed on student's transcript. Prerequisites: Permission of department chairperson; 56 semester hours completed; either admission to Professional Business Studies or listed on signed major or minor or with approval of the Office of Undergraduate Business Studies; or permission of MBA director or MBE advisor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

BIS 601 Management Information Systems 3(3-0) D
BIS 603 Curriculum in Business Education 3(3-0) D
BIS 610 Improvement of Instruction in Keyboarding/Word Processing 3(3-0) D
BIS 612 Improvement of Instruction in Office Cluster 3(3-0) D
BIS 616 Improvement of Instruction in Marketing 3(3-0) D
BIS 619 Continuing Registration for Final Research Project 1(1-0) D
BIS 620 Teaching Business Subjects at Post-Secondary Level 3(3-0) D
BIS 625 Research In Information Systems 3(3-0) D
BIS 628 Business Transaction Processing Systems 3(3-0) D
BIS 630 Systems Analysis and Design 3(3-0) D
BIS 632 Business Network Systems Management 3(3-0) D
BIS 633 Decision Support Systems 3(3-0) D
BIS 634 Information Resources Management 3(3-0) D
BIS 635 Business Systems Applications 3(3-0) D
BIS 636 Database Management for Business Systems 3(3-0) D
BIS 640 Essentials of Transaction Processing Systems 2(2-0) D
BIS 641 Essentials of Business Systems Analysis and Design 2(2-0) D
BIS 643 Essentials of Database Management 2(2-0) D
BIS 644 Decision Support for Management 2(2-0) D
BIS 645 Integrative Office Information Management 3(3-0) D
BIS 647 SAP Enterprise Software for Management 3(3-0) D
BIS 650 Office Facility Planning and Design 3(3-0) D
BIS 652 Problems in Vocational Education 3(3-0) D
BIS 653 Principles and Philosophy of Vocational Education 3(3-0) D
BIS 657 ABAP Programming for Managerial Systems 3(3-0) D
BIS 658 SAP Configuration and Implementation for Global Systems 3(3-0) D
BIS 660 Administrative Business Communication 3(3-0) D
BIS 667 Electronic Business Systems for eCommerce 3(3-0) D
BIS 686 Comparative Business Education 3(3-0) D
BIS 688 Directed Work/Observation/Internship 1-6(Spec)
BIS 697 Special Studies In Office and Information Systems 1-12(Spec) D
BIS 701 Professional Development Practicum 3(Spec) D
BIS 791 Independent Research 3(Spec) D
BIS 796 Thesis 1-6(Spec) D

Credit Limitation. BIS 555, 597, 686, 688, 697, 701, 791 are subject to graduate credit limitation under the policy covering unspecifed content or variable credit.

Business Law and Regulation (BLR)

The complete description of the Department of Finance and Law is found in the College of Business Administration.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: BLR 202.

BLR 110 Alternative Dispute Resolution in Business and Society 3(3-0) F
Alternatives to court litigation for resolving disputes in business and society. Techniques of negotiation, mediation and arbitration are examined and illustrated with student participation.

BLR 197 Special Topics 1-6(Spec) D
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) F, Sp
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) F, Sp, Su
Introduction to the concept and use of law as a social institution. Open to both nonbusiness and business students. (Group III-B)

BLR 222 The Search for Racial Justice Through Law 3(3-0) F, Sp, Su
Chronicles and evaluates the use of law by racial minorities in America in the search for justice. (Group IV-C)

BLR 235 Business Law 3(3-0) F, Sp
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: BLR 101, Tier 1 Continuing Admission to Professional Business Studies.

BLR 297 Special Topics 1-6(Spec) D
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) F, Sp, Su
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; 56 semester hours.

BLR 325 Women and the Law 3(3-0) Sp
Examines perceptions and behavior toward women and their struggle for change so as to achieve gender equality through use of the law. Identical to WST 325. Credit may not be earned in more than one of these courses. (Group III-A)

BLR 327 Legal Research 3(3-0) D
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; 56 semester hours.

BLR 328 Employment Law 3(3-0) F
A survey of the regulation of employment and personnel function, nationally and internationally. Prerequisites: BLR 202; 56 semester hours.

BLR 337 Sports Law 3(3-0) D
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 BLR 235 or permission of instructor.

BLR 360 Construction Law 3(3-0) Sp
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) F
Examines the legal and historical foundations and current application of the law with respect to the Native American's struggle for recognition and autonomy. Prerequisite: 56 semester hours. (Group IV-C)

BLR 390 Law of Enterprise Organization 3(3-0) D
Survey of laws regulating the creation, operation, and termination of agencies, partnerships, and corporations. Prerequisites: BLR 202; 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) D
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) Sp
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; 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) Sp
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 or permission of the department chairperson.

BLR 491 Independent Studies 1-6(Spec) D
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) F
A survey of environmental laws and policies that affect business decision making, stressing macro-environmental considerations and major Michigan environmental issues. Prerequisites: BLR 202 or ENV 101, or permission of Instructor; 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) D
Examines global legal environments that affect business and international business relationships. Prerequisites: BLR 202; 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) D
Selected topics 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.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

BLR 600 Legal and Social Environment of Business 3(3-0) D

BLR 631 Public Policy and Regulated Industries 3(3-0) D
Credit Limitation. BLR 597 is subject to graduate credit limitation under the policy covering unspecifed content or variable credit.

Business (BUS)

BUS 100 Essential Business Skills 3(3-0) F, Sp
Introduces students to the concept of a business, its disciplines, and essential business skills including decision making, team work, and oral and written communication. Prerequisite: none.

BUS 300 Applied Business Statistics 3(3-0) F, Sp
Applications of statistical analysis to support business decision making. Covers collection of business data, analysis of business datasets, and presentation of results. Prerequisites: STA 282 or STA 382; Tier 2 Admission to Professional Business Studies.

BUS 301 Integrated Business Experience 2(1-1) F, Sp
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. Co-requirements: FIN 302, MGT/MKT 303, MKT 304.

BUS 600 Quantitative Methods for Business 3(3-0)
Communication Disorders (CDO)

(Speech-Language Pathology and Audiology)

The complete description of the Department of Communication Disorders is found in The Herbert H. and Grace A Dow College of Health Professions.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: CDO 643, 721, 744, 754, 756, 762, 763, 764, 772, 782, 783, 785, 853, 863.

CDO 130 Normal Speech and Language Acquisition 3(3-0) F, Sp, Su
Normal acquisition of language and speech by children examined on the basis of current linguistic theory. (Group III-A)

CDO 230 Introduction to Speech, Language, and Hearing Disorders 3(3-0) F, Sp, Su
Assists 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.

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) F, Sp
Study of language development in normally developing children from birth through adulthood; oral language sample analysis; language characteristics in disordered language learners.

CDO 331 Introduction to Audiology 3(3-0) F, Sp
Study of the formal and informal assessment of phonological disorders, associated factors, and intervention approaches applied to various etiologies.

CDO 332 Auditory and Somatosensory Rehabilitation 3(3-0) F, Sp
Explains mechanisms and intervention techniques for auditory processing problems and other sensorimotor disorders.

CDO 333 Clinical and Diagnostic Procedures in Speech-Language Pathology 4(3-2) F, Sp
Clinical laboratory and on-the-job training in the diagnosis and treatment of speech-language disorders.

CDO 334 Acoustic and Descriptive Phonetics 4(3-2) F, Sp
Physical bases of sound, acoustic characteristics of speech production and perception, and a broad and narrow transcription of normal and disordered speech sound production.

CDO 335 The Anatomy and Physiology of Speech and Hearing 4(4-0) F, Sp
Function of the anatomical and neuroanatomical structures in speaking and hearing.

CDO 336 Introduction to Phonological Disorders: Assessment and Treatment 3(3-0) F, Sp
The study of the formal and informal assessment of phonological disorders, associated factors, and intervention approaches applied to various etiologies.

CDO 337 Clinical and Diagnostic Procedures in Speech-Language Pathology 4(3-2) F, Sp
Classroom lecture and lab integrating clinical evaluation and intervention techniques for treatment of specific communication disorders.

CDO 438 Language Disorders in Special Education Populations 3(3-0) F, Sp
To assist special education, elementary, and secondary teachers in the management of language disorders in mentally impaired, emotionally impaired, learning disabled, and autistic children and adults.

CDO 440 Child Language Assessment and Intervention 4(3-2) F, Sp
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.

CDO 490 Independent Study 1-4(Spec) F, Sp, Su
Student-initiated study guided by faculty member or faculty committee.

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: a significant major in CDO; completion of CDO 230, CDO 330, CDO 331, CDO 334, CDO 335; a grade point of at least 3.0 in CDO major courses. Corequisite: CDO 338, CDO 339.

CDO 495 Clinical Experience: Communication Disorders 3-6(Spec) F, Sp, Su
Enables students in communication disorders to carry out directed clinical practicum. Weekly discussion of clinical problems and cases. Prerequisites: CDO 230, CDO 330, CDO 331, CDO 334, CDO 335, CDO 338, CDO 339, CDO 494; a grade point of at least 3.0 in CDO major courses. Corequisite: CDO 440.

CDO 530 Speech and Hearing Problems of School Children 3(3-0)
Survey for classroom teachers. Recognition and evaluation of the several types of speech and hearing defects. Not open to majors in CDO.

CDO 531 Audiologic Rehabilitation 3(3-0)
Habitual and rehabilitative approaches for limited-hearing children and adults including lip-reading, auditory training speech, and language development. Clinical observation and practicum. Prerequisite: CDO 331.

CDO 532 Counseling Issues in Communication Disorders 1(1-0)
An introduction to counseling techniques for individuals working in the field of communication disorders. Needs of individuals with specific communication disorders will be addressed. Prerequisite: permission of instructor.

CDO 537 Special Topics in Communication Disorders 1-9(Spec)
Current topics for each semester listed in the Class Schedule. 3 hours each; maximum credit 9 hours.

CDO 544 Communication Disorders in the Aged 3(3-0)
Incidence, prevention, assessment, treatment, and impact of communication disorders associated with laryngeal cancer, hearing impairment, cerebral vascular accidents (strokes). Parkinsonism and other neurological impairments are discussed.

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; or permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

CDO 619 Continuing Registration for Final Research Project 1(1-0)
CDO 621 Emerging Technology in Speech-Language Pathology 2(2-0)
CDO 637 Special Topics In Communication Disorders 1-9(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 646 Language and Learning Disabilities in School Age Children 3(3-0)
CDO 701 Psycholinguistic and Neurolinguistic Bases of Language 3(3-0)
CDO 702 Infant-Toddler Communication: Assessment and Intervention 2(2-0)
CDO 704 Language Disorders in Preschool Children 3(3-0)
CDO 705 Traumatic Brain Injury 2(2-0)
CDO 711 Craniofacial Disorders 2(2-0)
CDO 712 Physiological Phonetics 2(2-0)
CDO 713 Voice Disorders/Laryngectomy Rehabilitation 3(3-0)
CDO 714 Motor Speech Disorders 3(3-0)
CDO 717 Aphasia and Related Neurogenic Disorders 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 735 Augmentative and Alternative Communication 3(3-0)
CDO 736 Phonological Disorders in Children 3(3-0)
CDO 739 Seminar: Stuttering 3(3-0)
CDO 740 Neuroanatomy 3(3-0)
CDO 741 Special Topics In Audiology 1-9(Spec)
CDO 742 Seminar: Cleft Palate/ Voice Disorders 3(3-0)
CDO 743 Audiologic Instrumentation 3(3-0)
CDO 744 Occupational and Environmental Hearing Conservation 3(3-0)
CDO 749 Clinical Practicum in Speech-Language Pathology 1-15(Spec)
CDO 750 Advanced Hearing Science 3(3-0)
CDO 751 Speech Audiometry 3(3-0)
CDO 752 Amplification for the Hearing Impaired 3(3-0)
CDO 754 Pediatric Audiology 3(3-0)
CDO 755 Advanced Diagnostic Practicum in Speech-Language Pathology 3(3-0)
CDO 756 Early Identification and Management of Hearing Loss 3(3-0)
CDO 759 Introduction to Clinical Practicum: Audiology 3-9(Spec)
CDO 762 Advanced Amplification for the Hearing Impaired 3(3-0)
CDO 763 Audiologic Rehabilitation Considerations in Education 3(3-0)
CDO-CHM 271

CDO 764 Audiologic Rehabilitation for Adults 3(3-0)
CDO 769 Intermediate Clinical Practicum: Audiology 3-9 (Spec)
CDO 771 Advanced Auditory Assessment 3(3-0)
CDO 772 Advanced Technology & Practice Aspects of Amplification 3(3-0)
CDO 773 Advanced Amplification Fitting Strategies 3(2-2)
CDO 781 Electrophysiological Techniques in Audiology 3(2-2)
CDO 782 Evaluation and Management of Balance Disorders 3(3-0)
CDO 783 Advanced Electrophysiological Techniques in Audiology 3(3-0)
CDO 785 Auditory Processing Disorders 3(3-0)
CDO 790 Advanced Independent Study 1-9 (Spec)
CDO 795 Internship 3-6 (Spec)
CDO 798 Thesis 1-6 (Spec)
CDO 849 Advanced Clinical Practicum: Audiology 4-12 (Spec)
CDO 853 Psychosocial Aspects of Hearing Loss 3(3-0)
CDO 863 Professional Issues in the Practice of Audiology 3(3-0)
CDO 896 Doctoral Project 1-12 (Spec)
CDO 995 Clinical Externship 5-23 (Spec)

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: CDO 537, 637, 741, 749, 790, 795.

Counselor Education and Personal Development (CED)

The complete description of Counselor Education and Personal Development is found in the Department of Counseling and Special Education in the College of Education & Human Services.

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 515 Basic Group Participation 1(Spec)
Facilitated group counseling where students experience being in the role of client/group participant. CR/NC only.

CED 517 Group Experience I 2(Spec)
Structured group activities analyzing the usual restrictions on free verbal expression of thought and feeling. Attempts to increase awareness and acceptance of self and others. CR/NC only.

CED 518 Group Experience II 2(Spec)
Experiential participation in personal growth/self development group. Special attention to self awareness and acceptance as well as the group process itself. CR/NC only. Prerequisites: CED 517 and admission to the CED program.

CED 519 Group Experience III 2(Spec)
Continuation of group experience with emphasis on personal involvement in the process. Direct attempts to communicate thoughts and feelings in the group setting. CR/NC only. Prerequisites: CED 517, CED 518 and admission to the CED program.

CED 520 Personal Growth and Development 2(Spec)
Personal growth 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 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 600 and 700 level course descriptions consult the current Graduate Bulletin.

CED 605 The Marriage and Family Therapist 3(3-0)
CED 610 Career Development and Counseling 3(3-0)
CED 611 Developmental Career Counseling 3(2-1)
CED 619 Continuing Registration for Final Research Project 1(1-0)
CED 620 Introduction to Multicultural Issues in Counseling 3(3-0)
CED 630 Counseling Ethics and Professional Issues 3(3-0)
CED 640 Standardized Tests 3(3-0)
CED 645 School Counseling Seminar 3(3-0)
CED 650 Theories and Techniques of Group Counseling 3(3-0)
CED 651 Counseling with Children 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 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 760 Individuality in Counseling 2(2-0)
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)

Credit Limitation. Courses in CED that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: CED 580, 670, 680, 780.

Chemistry (CHM)

The complete description of the Department of Chemistry is found in the College of Science & Technology.

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. (Group II-B)

CHM 111 The Interaction of Chemistry and Society 3(3-0)
The impact of chemistry on our environment. Emphasis on water, air, and environmental pollution. Recommended for elementary school teachers. No credit toward major or minor. No previous chemistry required. (Group II-A)

CHM 120 Survey of Chemistry 4(4-0)
Elementary concepts of chemistry for students on curricula needing minimal chemical background; e.g., forestry, conservation, agriculture, nursing. Cannot be counted on major or minor. (Group II-B)

CHM 127 Introductory Chemistry Laboratory 1(0-2)
Elementary laboratory experiments which parallel syllabus in CHM 111 and CHM 120. Recommended for students in dietetics, sports medicine, health education, and elementary/middle school education. Prerequisite or corequisite: CHM 111 or CHM 120. (Group II-B)

CHM 131 Introduction to Chemistry I 4(3-3)
Fundamental concepts of chemistry. CHM 131 and CHM 132 are recommended to constitute the standard one-year course. Satisfies University Program Group II laboratory requirement. Prerequisite: high school algebra (one unit). (Group II-B)

CHM 132 Introduction to Chemistry II 4(3-3)
Continuation of CHM 131. Prerequisite: CHM 131 or permission of instructor. (Group II-B)

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. Prerequisites: Algebra (I unit), Chemistry (I unit), or CHM 120. (Group II-B)
CHM 171 Perspectives in Chemistry 1-6(Spec)
Student-selected topics for the nonscientist. Semester’s topics such as Man-in-the-Sea, Licit and illicit Drugs announced in Course Offering Guide. No credit toward major or minor.

CHM 172 Introduction to the Techniques of Research 1-3(Spec)
The course is designed to provide an introduction to laboratory techniques used in research for beginning students in chemistry, for participants in the ACS project SEED program, and for participants in other summer research programs at the beginning level. CR/NC.

CHM 211 Quantitative Analysis 4(3-5)
Gravimetric, volumetric, spectroscopic, and electroanalytical methods of analysis. Prerequisites: CHM 132 or CHM 161, or advanced placement.

CHM 262 Mass and Energy Balances 4(4-0)
Applications of the principles of mass and energy conservation to problems of industrial chemistry and chemical engineering. Prerequisite: CHM 132 or CHM 161.

CHM 331 Inorganic Chemistry 3(2-4)
Descriptive chemistry of selected main group and transition elements, coordination complexes, structures and properties of solids. Synthesis and characterization of inorganic compounds. Prerequisites: CHM 132 or CHM 161.

CHM 342 Survey of Organic Chemistry 4(3-3)
Elementary course covering the entire field of organic chemistry. Course meets the needs for entrance to some professional schools. No credit toward major or minor. Prerequisites: CHM 120, CHM 127; or CHM 132.

CHM 345 Organic Chemistry I 3(3-0)
Aliphatic and related compounds. Prerequisites: CHM 132, CHM 161, or advanced placement.

CHM 346 Organic Chemistry II 3(3-0)
Continuation of CHM 345, with emphasis on aromatic, heterocyclic, related compounds and structures. Prerequisite: CHM 345.

CHM 349 Introduction to Organic Chemistry Lab 2(0-8)
Fundamental laboratory techniques in organic chemistry. Methods of separation and purification of organic compounds. Introduction to applications of infrared and NMR spectroscopy. Introduction to synthesis. Prerequisite or corequisite: CHM 346.

CHM 351 Physical Chemistry I 3(3-0)
Fundamental principles of chemistry based on a quantitative approach. Prerequisites: CHM 211; MTH 233. Prerequisite or corequisite: PHY 146.

CHM 352 Physical Chemistry II 3(3-0)
Continuation of CHM 351. Prerequisite: CHM 351.

CHM 357 Physical Chemistry Laboratory 2(0-4)
Laboratory techniques with advanced data analysis and error propagation in thermochemistry, phase equilibria, kinetics, spectroscopy, surface effects and computational chemistry. Prerequisite or corequisite: CHM 352.

CHM 371 Special Topics in Chemistry 1-6(Spec)
Intensive study of selected topics such as Surface Chemistry, Modern Inorganic, Topics and instructor’s prerequisites announced in Class Schedule Book.

CHM 421 Survey of Biochemistry 3(3-0)
Descriptive course covering the entire field of biochemistry for dietetics, prephysician assistant, and biology majors in secondary education. No credit toward major or minor. Prerequisites: CHM 342.

CHM 425 Introductory 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 132 or CHM 161; PHY 131 or PHY 146 or equivalent.

CHM 507 Field Experience in Teaching Chemistry/Physics 1(Spec)
Supervised experience in high school chemistry and/or physics classes. Experience will include observation, participation in instruction, and critical analysis of the experience. Identical to PHY 507. Credit may not be earned in more than one of these courses. CR/NC only. Corequisites: CHM/PHY 505 or equivalent.

CHM 511 Advanced Analytical Chemistry 4(2-4)
Spectroscopic, electrochemical, and other techniques as applied to analytical chemistry. Prerequisite: CHM 352 or permission of instructor.

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 Biochemistry I 3(3-0)
The chemistry of biomolecules with emphasis on the structure and function of proteins, enzymes, carbohydrates, lipids, and nucleotides; carbohydrate metabolism. Prerequisites: CHM 211, CHM 346.

CHM 522 Biochemistry II 3(3-0)
Continuation of CHM 521. Metabolism of carbohydrates, lipids, amino acids, and nucleotides; molecular biology and genetic engineering. Prerequisite: CHM 521.

CHM 523 Clinical Chemistry 4(3-3)
Application of the principles of analytical techniques to the determination of body constituents as they relate to health and disease. Prerequisites: CHM 211, CHM 346; CHM 425 or CHM 522; BIO 392.

CHM 527 Biochemistry Laboratory 1(0-4)
Isolation, characterization, and analysis of proteins, carbohydrates, lipids, vitamins, and nucleic acids using chromatographic, electrophoretic, and spectroscopic techniques. Prerequisite: CHM 211, CHM 349. Prerequisite or corequisite: CHM 425 or CHM 521.

CHM 531 Advanced Inorganic Chemistry 3(3-0)
Molecular structure and symmetry, acid-base and oxidation-reduction chemistry, reactivity of inorganic compounds from a thermodynamical basis, catalysis, solid state and organometallic compounds. Prerequisites: CHM 331 and CHM 352, or permission of instructor.

CHM 541 Advanced Organic Chemistry 3(3-0)
Mechanisms of organic reactions, emphasizing methods by which these are determined, including kinetics, principles of bonding, stereochemistry, and nuclear magnetic resonance in depth. Prerequisites: CHM 346, CHM 351, or permission of instructor.

CHM 547 Techniques and Synthesis in Organic Chemistry 2(1-3)
Advanced synthesis and separation of organic compounds. Elucidation of structure by spectroscopic means. Prerequisite: CHM 349.

CHM 561 Polymer Chemistry 3(3-0)
An introduction to the concepts of polymer synthesis, characterization by physical, thermal, and spectroscopic methods, structure, properties, and basic fabrication processes. Prerequisites: CHM 346 and CHM 352, or permission of instructor.

CHM 562 Industrial Chemistry 3(3-0)
Treatment of the following three primary areas: 1) actual chemistry of industry, 2) the technology of industry, and 3) the industrial chemical environment. Prerequisite: CHM 346 or permission of instructor.

CHM 563 Petroleum Operations 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 or CHM 352, or permission of instructor.

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 581 or permission of instructor.

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, or permission of instructor.

CHM 567 Polymer Science Laboratory 2(1-3)
Treatment of laboratory techniques common to polymer science: synthesis of polymers and the characterization of these materials by spectroscopic, thermal, and mechanical methods. Prerequisites: CHM 349. Corequisite: CHM 561 or permission of instructor.

CHM 571 Topics in Chemistry 1-6(Spec)
A variety of special topics presented at an advanced undergraduate, beginning graduate level. Topics and instructor’s prerequisites announced in Course Offering Guide.

CHM 572 Selected Topics in Chemistry 1-6(Spec)
Selected technical topics, often presented in intensive short course or workshop format, for advanced undergraduate or graduate students, secondary or community college teachers and practitioners in the field. Topics and instructor’s prerequisites announced in Course Offering Guide. CR/NC Only.

CHM 583 Seminar in Chemistry 1-4(Spec)
Presentation of technical material and training in the use of chemical literature. Repeated enrollment in CHM 583 is encouraged (up to four times); however, a maximum of 2 credit hours may be used to satisfy major or minor requirements. Prerequisite: 25 hours of chemistry or permission of instructor. For 600 and 700 level course descriptions consult the current Graduate Bulletin.

CHM 611 Advanced Topics in Analytical Chemistry 1-9(Spec)

CHM 619 Continuing Registration for Final Research Project 1(1-0)

CHM 624 Advanced Topics in Biochemistry 1-9(Spec)

CHM 631 Coordination Chemistry 2(2-0)
CHM 632 Advanced Topics in Inorganic Chemistry 1-9(Spec)
CHM 641 Advanced Topics in Organic Chemistry 1-9(Spec)
CHM 642 Chemistry of Heterocyclic Compounds 3(3-0)
CHM 651 Advanced Topics in Physical Chemistry 1-9(Spec)
CHM 662 Molecular Structure 2(2-0)
CHM 663 Macromolecular Synthesis 1(1-0)
CHM 664 Chemical Structure and Reactivity of Polymers 1(1-0)
CHM 665 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 681 Physical Techniques and Instrumentation 2(2-0)
CHM 682 Principles of Synthesis 1(1-0)
CHM 683 Thermodynamics 1(1-0)
CHM 684 Applications of Separation Techniques 1(1-0)
CHM 686 Applications of Spectroscopy 1(1-0)
CHM 687 Analytical Techniques 1(1-0)
CHM 688 Bonding and Stereochemistry 1(1-0)
CHM 690 X-Ray Diffraction of Polymers 1(1-0)
CHM 691 Heterophase Polymer Systems 1(1-0)
CHM 692 Polymer Degradation and Stabilization 2(2-0)
CHM 693 Stereochemistry of Polymers 1(1-0)
CHM 781 Chemistry Examination Seminar 2(Spec)
CHM 791 Directed Research 1-6(Spec)
CHM 793 Chemistry Teaching Internship 1-9(Spec)
CHM 794 Experimentation in the Teaching of Chemistry 1-6(Spec)
CHM 798 Thesis 1-6(Spec)

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: CHM 571, 572, 685, 791, 793, 794.

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. (Group IV-B)

CHN 102 Elementary Chinese II 4(4-0)
Basic language skills. Continuation of CHN 101. Prerequisites: CHN 101 or permission of instructor. (Group IV-B)

Computer Science (CPS)
The complete description of the Department of Computer Science is found in the College of Science & Technology.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: CPS 501, 510, 603, 612.

CPS 100 Computers and Society 3(3-0)
Fundamental concepts and applications of computers. Impact of the computer on human events and social institutions. Control, predictions, and implications of future computer developments. Identical to BIS 104. Credit may not be earned in more than one of these courses. Does not count on CPS major or minor. (Group IV-A)

CPS 105 Word Processing Concepts 1(1-0)
Introduction to word processing and desktop publishing concepts. Features common to most word processing software. Evaluation of software packages. Identical to BIS 105. Credit may not be earned in more than one of these courses. Prerequisites: BIS 112 or equivalent.

CPS 106 Spreadsheet Concepts 1(1-0)
Introduction to spreadsheets and report generation. Features common to most spreadsheets. Evaluation of software packages. Identical to BIS 106. Credit may not be earned in more than one of these courses. Prerequisites: Familiarity with microcomputer use.

CPS 107 Database Concepts 1(1-0)
Introduction to database and report generation. Features common to most database products. Evaluation of software packages. Identical to BIS 107. Credit may not be earned in more than one of these courses. Prerequisites: Familiarity with microcomputer use.

CPS 108 - Computer Graphics Concepts 1(1-0)
Introduction to computer graphics. Use of one or more graphics programs. Concepts needed for design and generation of computer images. Evaluation of software. Identical to BIS 108. Credit may not be earned in more than one of these courses. Prerequisites: Familiarity with microcomputer use.

CPS 109 - Computer Communication Concepts 1(1-0)
Introduction to concepts needed for computer communications. Local and wide area networks, electronic mail, file transfer, electronic bulletin boards, conferences. Use of several communication programs. Identical to BIS 111. Credit may not be earned in more than one of these courses. Prerequisites: Familiarity with use of a computer.

CPS 110 - Information Technology Programming I 3(3-0)
Introduction to operating a computer and writing computer programs. First programming course in the information technology major/minor. Language used is Visual Basic.

CPS 120 Microcomputer Applications 3(3-0)
The effective use of microcomputer technology in business, education, industry, and society. Does not count towards CPS major or minor, except on the secondary education curriculum. Prerequisites: familiarity with microcomputer use.

CPS 150 FORTRAN Programming 2(2-0)
Algorithms, programs, and computers. Computer solution of several numerical and nonnumerical problems. Does not count toward a major or minor in CPS. Prerequisite: MTH 107.

CPS 165 Designing Web Pages 1(1-0)
Design and publication of web pages. Introduction to HTML, browser characteristics and multiple authoring tools. Do's and don'ts of web publishing. Examples and tutorials. Prerequisites: familiarity with personal computer usage.

CPS 170 Operating Systems Commands 1(3-Spec)
Intensive introduction to using one or more operating systems (VMS, CMS, UNIX, etc.). Operating systems presented will be announced in the Phase I Class Schedule Booklet.

CPS 180 Principles of Computer Programming 3(3-0)
Introduction to fundamentals of programming language. Topics in abstract data types (such as stacks, queues, linked lists, and binary trees), sorting and searching. Prerequisites: CPS 180; Corequisite: MTH 175.

CPS 196 Special Topics in Computer Science 1-6(Spec)
Selected topics which are not normally included in existing courses. May be taken for credit more than once, but total credit earned in CPS 196 may not exceed 6 semester hours. Prerequisites: permission of instructor.

CPS 210 Assembly Language and Computer Organization 3(3-0)
Topics in assembly language concepts, introduction to computer organization, machine representation of information, models or computer architecture, instruction and addressing fundamentals, control structures. Prerequisites or Corequisites: CPS 181; one of: MTH 132, MTH 136 or MTH 216.

CPS 240 Object-Oriented Programming 3(3-0)
Introduction and analysis of the object-oriented programming paradigm and concepts. Design of classes and objects in program solving. Use of object libraries. Prerequisites: a grade of C or higher in CPS 181, or permission of instructor.

CPS 280 Alternative Programming Languages 1-6(Spec)
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 one 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, or permission of instructor.

CPS 296 Special Topics in Computer Science 1-6(Spec)
Selected technical topics of the latest developments in the field. These topics are normally not covered in existing courses. Prerequisites: permission of instructor.
CPS 340 Advanced Data Structures and Algorithms 3(3-0)
Theory of and advanced techniques for representation of information; lists, trees, graphs; analysis of algorithms; sorting, searching and hashing techniques. Prerequisites: CPS 181, CPS 210; MTH 223 or MTH 137.

CPS 360 Computer Design and Architecture 3(3-0)
Analysis and design of combinational and sequential logic circuits. Basic concepts of computer architecture at the register-transfer-logic level. Prerequisite: CPS 210.

CPS 370 File Manipulation Techniques 3(3-0)
Creation and manipulation of program and data files, scientific and industrial applications of file-oriented systems, prominent computer languages having file processing capabilities. Prerequisite: CPS 181.

CPS 380 Microcomputer Architecture 3(3-0)
Concepts and operation of microprocessors and microcomputers to include input/output, mass storage, memory, and small read-only memory operating systems. Prerequisites: CPS 210, CPS 360 or equivalent.

CPS 395 Internship in Computer Science 1-6(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, CPS 370.

CPS 420 Windows Programming 3(3-0)
Introduction to programming for window systems. Graphical User Interfaces, object-oriented programming, shared data and program libraries. Mixed-language programming. Relationships among windowing systems. Prerequisites: CPS 340 or ITC 320.

CPS 450 Programming Language Concepts 3(3-0)
Formal definition of programming languages including specification of syntax and semantics. Prerequisite: CPS 340.

CPS 468 Systems Programming and Software 3(3-0)
System 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)
Automated reasoning, search strategies, knowledge representation, game playing, expert systems, machine learning and perception, applications. Prerequisites: CPS 340.

CPS 482 Advanced Multimedia Design 3(3-0)
Interactive multimedia projects will be designed using advanced authoring tools. Issues concerning representation, storage, compression, transmission, and manipulation of various multimedia components will be discussed. Prerequisites: CPS 282 or permission of instructor.

CPS 496 Special Topics in Computer Science 1-6(Spec)
May be taken for credit more than once, but total credit earned in CPS 496 may not exceed 6 semester hours. Prerequisite: permission of instructor.

CPS 497 Independent Study 1-6(Spec)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours.

CPS 501 Survey of Computer Science 3(3-0)
Computer organization, low and high level computer languages, various computer applications. Does not count toward CPS major or minor or the M.S. in Computer Science except the Teaching Minor in Computer Science on the secondary education curriculum.

CPS 502 Introduction to Problem Solving & Data Structures 3(3-0)
Structured program design and problem solving. Abstract data types. Searching and sorting. Does not count towards any degree program in Computer Science. Prerequisite: Conditional admission into CPS M.S. program, or permission of instructor.

CPS 503 Digital Design & Computer Organization Using Assembly Language 3(3-0)
Introduction to organization of a digital computer. Design of digital circuits. Assembly language programming. Does not counts toward any degree program in Computer Science. Prerequisite: conditional admission into CPS M.S. program, or permission of instructor.

CPS 510 Software Systems Engineering 3(3-0)
Covers requirements analysis and techniques to develop a system from those requirements. Credit will not be given for both CPS 510 and CPS 515. Does not count for the M.S. in Computer Science. Prerequisites: CPS 340; MTH 175.

CPS 530 Simulation of Discrete Event Systems 3(3-0)
Development of computer models for discrete systems using computer simulation languages. Performance evaluation of computer, industrial and engineering systems. Prerequisite: CPS 181; STA 282 or STA 382.

CPS 531 Distributed Programming 3(3-0)
Study of design and implementation issues in distributed programming, including event model, networking, database connectivity, remote method invocation, servlet, XML, and security. Prerequisites: CPS 280J or equivalent, CPS 340.

CPS 541 Databases 3(3-0)
Physical and logical organizations of databases, database management systems, project involving a student-designed database. Prerequisites: CPS 340 and CPS 370; or ITC 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. CISC versus RISC debate. Parallel Architectures. Prerequisite: CPS 340.

CPS 565 Computer Networks 1(3-0)
Introduction to data communication as a basis for computer networking. Protocols, routing algorithms, and congestion in point-to-point networks. Introduction to local area networks. Prerequisites: CPS 340, CPS 360; or ITC 465; permission of instructor.

CPS 575 Computer Graphics 3(3-0)
Representation of line drawings, handwritings, and three-dimensional surfaces in computers. A plotter and graphics terminal are used. Prerequisites: CPS 181; MTH 137 or MTH 223.

CPS 576 Digital Image Processing 3(3-0)
Digital image fundamentals. Introduction to digital image processing concepts and techniques. Image transforms. Enhancement, segmentation, representation, and description of images. Image encoding and restoration. Prerequisites: CPS 340; MTH 175; MTH 223; or permission of instructor.

CPS 590 Computer Applications in Educational Administration 3(3-0)
Use of computers in managing educational resources and programs. Hands-on instruction in use of existing systems. How to design and implement new systems. Does not count on CPS majors or minors except for teacher certification program. Prerequisite: CPS 501.

CPS 591 Computer Application In Classroom Instruction 3(3-0)
Software evaluation and hardware selection. Modes of computer-based instruction. Introduction to CAI and authorizing systems. Simulation/gaming for instructional purposes. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 592 Computer Science Content for Elementary Teachers 3(3-0)
Introduction to procedural thinking skills. Programming in BASIC and LOGO. Overview of computer architecture at a functional level. Use of binary and hexadecimal numeral 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 600 and 700 level course descriptions consult the current Graduate 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 620 Operating Systems 3(3-0)

CPS 626 Advanced Topics In Databases 3(3-0)

CPS 630 Advanced Topics in Databases 3(3-0)

CPS 631 Advanced Topics in Databases 3(3-0)

CPS 632 Advanced Topics in Databases 3(3-0)

CPS 633 Advanced Topics in Databases 3(3-0)

CPS 634 Advanced Topics in Databases 3(3-0)

CPS 635 Advanced Topics in Databases 3(3-0)

CPS 636 Advanced Topics in Databases 3(3-0)

CPS 637 Advanced Topics in Databases 3(3-0)

CPS 638 Advanced Topics in Databases 3(3-0)

CPS 639 Advanced Topics in Databases 3(3-0)

CPS 640 Advanced Topics in Databases 3(3-0)

CPS 641 Advanced Topics In Databases 3(3-0)

CPS 650 Theory and Practice of Compiler Construction 3(3-0)

CPS 651 Theory and Practice of Compiler Construction 3(3-0)

CPS 652 Theory and Practice of Compiler Construction 3(3-0)

CPS 653 Theory and Practice of Compiler Construction 3(3-0)

CPS 654 Theory and Practice of Compiler Construction 3(3-0)

CPS 655 Theory and Practice of Compiler Construction 3(3-0)

CPS 656 Theory and Practice of Compiler Construction 3(3-0)

CPS 657 Theory and Practice of Compiler Construction 3(3-0)

CPS 658 Theory and Practice of Compiler Construction 3(3-0)

CPS 659 Theory and Practice of Compiler Construction 3(3-0)

CPS 660 Advanced Computer Organization 3(3-0)

CPS 661 Advanced Computer Organization 3(3-0)

CPS 662 Advanced Computer Organization 3(3-0)

CPS 663 Advanced Computer Organization 3(3-0)

CPS 664 Advanced Computer Organization 3(3-0)

CPS 665 Advanced Computer Organization 3(3-0)

CPS 666 Advanced Computer Organization 3(3-0)

CPS 667 Advanced Computer Organization 3(3-0)

CPS 668 Advanced Computer Organization 3(3-0)

CPS 669 Advanced Computer Organization 3(3-0)

CPS 670 Operating Systems 3(3-0)

CPS 675 Advanced Topics in Computer Graphics 3(3-0)

CPS 676 Advanced Topics in Computer Graphics 3(3-0)

CPS 677 Advanced Topics in Computer Graphics 3(3-0)

CPS 678 Advanced Topics in Computer Graphics 3(3-0)

CPS 679 Advanced Topics in Computer Graphics 3(3-0)
Dance (DAN)

The complete description of Dance is found in the Department of Speech Communication and Dramatic Arts in the College of Communication and Fine Arts.

DAN 104 Latin Dance I (1-0) D
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) D
Introduction to social dance forms and styles.

DAN 106 Country Line Dance 1(Spec) D
Introduction to the basic elements and skills used in the performance of country line dance.

DAN 107 Swing Dance 1(Spec) D
Introduction to the basic steps and styles of swing dance.

DAN 132 Introduction to Clogging 1(Spec) D
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) F
Beginning instruction, techniques, and basic skills of contemporary dance.

DAN 134 Recreational Dance I 1(Spec) F, Sp
An introductory course designed to acquaint the student with beginning folk, square, and social dance.

DAN 136 Ballet Technique I 2(Spec) F
To familiarize the beginning student with the basics of ballet.

DAN 137 Tap I 2(Spec) Sp
An introductory dance course of basic tap instruction.

DAN 138 Jazz I 2(Spec) F
An introductory course in jazz dance that builds from traditional jazz into the contemporary.

DAN 140 Dance Repertory Theatre I 2-4(Spec) F
The in-depth study of the principles and techniques of stage form, style, and projection necessary for dance performance. Prerequisite: Audition or permission of instructor.

DAN 230 Movement—Rhythmic Form and Structure 3(3-0) D
An in-depth study of the dynamic functions of movement and dance.

DAN 231 Fundamental Movement 2(2-0) D
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) D
Introduction to the basic elements of dance choreography through the use of creative problem solving. Prerequisite: DAN 133 or permission of instructor.

DAN 233 Dance Technique II 2(1-2) Sp
Intermediate technique. Prerequisite: DAN 133; or permission of instructor.

DAN 236 Ballet II 2(Spec) Sp
To afford students the opportunity to use skills learned in Ballet I to progress to a higher level of proficiency in ballet movement. Prerequisites: Ballet I or permission of instructor.

DAN 237 Tap II 1(Spec) D
Continuation of DAN 137, Tap I, leading to the development of intermediate tap techniques. Prerequisites: DAN 137 or permission of instructor.

DAN 240 Dance Repertory Theatre II 2-4(Spec) F
Continuation of DAN 140. Prerequisite: DAN 140 or permission of instructor.

DAN 332 Dance Composition II 3(3-0) D
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) Sp
Advanced technique. Prerequisites: DAN 233 with a grade of B, or permission of instructor.

DAN 334 Teaching of Folk, Square, and Social Dance 3(3-0) F, Sp
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) D
Development of intermediate to advanced tap techniques in various combinations with jazz styling. Prerequisites: DAN 237; intermediate techniques or permission of the instructor.

DAN 340 Dance Repertory Theatre and Tour Company 2-8(Spec) Sp
Study of choreography created by members of the dance faculty and guest artists, leading to public performance. Prerequisite: audition or permission of instructor.

DAN 430 Dance Production 3(2-2) D
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) D
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) Sp
Preparation and performance of dance roles of Orchesis. Prerequisite: audition or permission of instructor.

DAN 480 Dance Practicum 1-3(Spec) D
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) D
An approved investigation, survey, study, or observation observation in some area of dance performed off-campus. Prerequisites: permission of instructor; junior standing.

DAN 530 History of Dance 3(3-0) D
Dance history from its primitive beginning to the present. Relationships of dance forms to the societies in which they developed.

Degree in Health Administration (DHA)

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: DHA 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728.

DHA 700 Leadership: Foundations & 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 12(Spec)
## Educational Administration (EAD)

The complete description of Educational Administration is found in the Department of Educational Administration and Community Leadership in the College of Education & Human Services.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Prerequisites/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAD 770</td>
<td>Advanced Administration of Elementary Schools</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 772</td>
<td>Advanced Administration of Secondary Schools</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 773</td>
<td>Instructional Supervision for Administrators</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 774</td>
<td>Women in Educational Leadership</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 775</td>
<td>Administration of Higher Education</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 777</td>
<td>Administration of Student Personnel Services</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 778</td>
<td>Contemporary Issues in Higher Education</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 790</td>
<td>Critical Issues: Administration of Elementary Schools</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 792</td>
<td>Critical Issues: Administration of Secondary Schools</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 796</td>
<td>Critical Issues: Administration of the School District</td>
<td>3(3-0)</td>
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<tr>
<td>EAD 787</td>
<td>Field Study</td>
<td>1-6(Spec)</td>
<td>F, Sp</td>
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<tr>
<td>EAD 798</td>
<td>Thesis</td>
<td>1-6(Spec)</td>
<td>F, Sp</td>
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<tr>
<td>EAD 800</td>
<td>Qualitative Analysis in Educational Leadership</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 801</td>
<td>Quantitative Statistics in Educational Leadership</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 810</td>
<td>Ethics in Educational Leadership</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 825</td>
<td>Culture of Educational Organizations</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 860</td>
<td>Organizational Theory in Educational Institutions</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 865</td>
<td>Organizational Change in Educational Institutions</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 870</td>
<td>Issues in Educational Leadership</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 875</td>
<td>Educational Policy Analysis</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 885</td>
<td>Doctoral Internship</td>
<td>3-6(Spec)</td>
<td>D</td>
</tr>
<tr>
<td>EAD 886</td>
<td>Advanced Problem Solving in Educational Leadership</td>
<td>3(3-0)</td>
<td>Su</td>
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<tr>
<td>EAD 897</td>
<td>Dissertation Colloquium</td>
<td>3(3-0)</td>
<td>D</td>
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<tr>
<td>EAD 898</td>
<td>Dissertation</td>
<td>1-15(Spec)</td>
<td>D</td>
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<tr>
<td>EAD 899</td>
<td>Doctoral Seminar</td>
<td>1-10(F)</td>
<td>F</td>
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</tbody>
</table>

Credit Limitation: Educational administration courses that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: EAD 592, 650, 680, 687, 688, 689, 695, 699, 750, 797.

## Economics (ECO)

The complete description of the Department of Economics is found in the College of Business Administration. Descriptions of courses approved for the University Program appear in italic type.

### Distance Learning Courses:
Courses in the department approved for offering in a distance learning format include: ECO 201, 202.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
<th>Prerequisites/Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 101</td>
<td>Economics as a Way of Thinking</td>
<td>3(3-0)</td>
<td>F, Sp</td>
</tr>
<tr>
<td>ECO 110</td>
<td>Economics and Society</td>
<td>3(3-0)</td>
<td>F, Sp</td>
</tr>
<tr>
<td>ECO 150</td>
<td>Current Economic Problems</td>
<td>3(3-0)</td>
<td>D</td>
</tr>
<tr>
<td>ECO 201</td>
<td>Principles of Macroeconomics</td>
<td>3(3-0)</td>
<td>F, Sp</td>
</tr>
<tr>
<td>ECO 202</td>
<td>Principles of Microeconomics</td>
<td>3(3-0)</td>
<td>F, Sp</td>
</tr>
<tr>
<td>ECO 203</td>
<td>Microeconomic Principles</td>
<td>3(3-0)</td>
<td>F, Sp</td>
</tr>
<tr>
<td>ECO 204</td>
<td>Principles of Macro- and Global Economics</td>
<td>3(3-0)</td>
<td>F, Sp</td>
</tr>
</tbody>
</table>
ECO 211 Economics of Professional Team Sports 3(3-0) D
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) D
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) D
Examines the roles of self-interest, altruism, expectations and information in individual and group decision-making. In-class experiments simulate market behavior and test theoretical predictions. (Group III-A)

ECO 230 Women in the Economy 3(3-0) D
A study of the past and present role of women in the economy, as workers, both inside and outside the labor market. Identical to WST 230. Credit may not be earned in more than one of these courses. (Group IV-A)

ECO 280 Economics of the World 3(3-0) D
Overview of economies, with emphasis on comparison of their economic performance, the system used for production and distribution, and economic agreements among nations. (Group III- B)

ECO 281 Economic Development of the Pacific Rim 3(3-0) F, Sp
Rapid development of Pacific Rim economies and its impact on our economy is studied. The roles of history and culture in economic policy are studied. (Group IV-B)

ECO 285 Statistical Methods in Economics 3(3-0) F, Sp
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 213 or ENT 213; math competency.

ECO 301 Environmental Economics 3(3-0) F, Sp
Basic economic understanding of environmental/ecological problems arising from a free enterprise system. Economists' solutions presented without advanced economic theory or mathematical computation. Prerequisites: ECO 202 or permission of instructor

ECO 302 Economics of Poverty and the Ghetto 3(3-0) D
Economics of poverty and urban racial crisis. Emphasizes analysis of ghetto economy, roots of chronic poverty, policy alternatives, and their relationship to other urban problems. Prerequisites: ECO 201 or ECO 202.

ECO 306 Money and Banking 3(3-0) F, Sp
The nature of money and credit; history, structure, and functions of banking institutions, with emphasis upon Federal Reserve System and questions of appropriate public policy. Prerequisites: ECO 201 or ECO 204; ECO 202 or 203.

ECO 310 American Economic Development 3(3-0) D
Realistic interpretation, with emphasis on economic change and its significance in social, cultural, and political evolution. Prerequisites: ECO 201 or ECO 202.

ECO 320 European and Asian Economic History 3(3-0) D
Realistic introduction to the diverse economic experiences of advanced European and Asian nations from the British industrial revolution to the present. Prerequisites: ECO 201 or ECO 202.

ECO 360 Public Economics 3(3-0) D
Appropriate and actual roles of government in market economies, and how government influences the use of resources and distribution of income. Prerequisites: ECO 202.

ECO 365 Intermediate Microeconomic Theory 3(3-0) D
An intensive treatment of the theories of supply and demand, consumer and producer behavior, market structure, and other micro theories and issues. Prerequisites: ECO 202 or ECO 203.

ECO 370 Intermediate Macroeconomic Theory 3(3-0) Sp, D
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 372 International Economics 3(3-0) D
Basic background in international trade theory and practices, exchange rates and balance of payments, and international monetary arrangements. Prerequisites: ECO 201, ECO 202.

ECO 375 Economics of Cities and Regions 3(3-0) D
Elementary theories of regional economic analysis used in solving specific problems such as pollution, housing, segregation, and environment. Emphasizes urban regions. Prerequisites: ECO 201 or ECO 202.

ECO 380 Comparative Economic Systems 3(3-0) D
Comparative study of economic institutions in a world of politicoeconomic change. An analysis of capitalism, fascism, socialism, and communism. Prerequisites: ECO 201 or ECO 202.

ECO 381 Patterns of Economic Development 3(3-0) D
A study of the problems, processes, and theories of economic change in today’s less developed countries. Prerequisites: ECO 201 or ECO 202.

ECO 385 Introduction to Econometrics 3(3-0) D
Introduction to the theory and practice of linear regression analysis in economics focusing on single equation methods. Extensive computer applications. Prerequisites: ECO 202, ECO 285 or STA 382, or permission of instructor.

ECO 397 Special Studies in Economics 1-6(Spec) D
Experimental courses to cover materials of special interest not covered by course in the regular curriculum. Prerequisites: permission of instructor.

ECO 410 Government and Business 3(3-0) F
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.

ECO 411 The Economics of Slavery in the U.S. 3(3-0) F
The economic indictment of southern slavery; new challenges to this indictment; implications of the existence of southern slavery for present economic policy decisions. Prerequisites: ECO 201 or 202.

ECO 414 Labor Economics 3(3-0) D
Labor Market operations and wage determination; human capital investment; labor market discrimination; wage differentials; impact of unionization on wages; collective bargaining. Prerequisites: ECO 202 or ECO 203.

ECO 425 The Economics of Industrial Organization 3(3-0) D
Concepts, theories, and evidence which relate industry structure to behavior and performance of firms. Provides a basis for evaluating public policy. Prerequisites: ECO 201, ECO 202.

ECO 430 Views of the Future of the U.S. Economy 3(3-0) D
Analysis of economic thought, projections and institutional changes suggested for the future by various schools of thought. Institutional rather than quantitative emphasis. Prerequisites: ECO 202.

ECO 440 Managerial Economics 3(3-0) Sp

ECO 490 Economics Internship 1-3(Spec) D
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, ECO 202 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) D
Economic aspects of urban regions; their growth; household location; pollution; poverty. Solutions-oriented discussion of urban problems. Complements ECO 504. Prerequisite: ECO 375 or permission of instructor.

ECO 504 Seminar in Regional Economics 3(3-0) D
Economic analysis of sub-national regions, including location theory, growth determinants, industrial structure, and policy alternatives of city size. Complements ECO 503. Prerequisite: ECO 375 or permission of instructor.

ECO 508 Monetary Theory 3(3-0) D
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) Sp
Development of various phases of labor law, especially under statutes such as the Wagner Act, Taft-Hartley Act, and Landrum-Griffin Act. Prerequisites: ECO 201, ECO 202.

ECO 532 Economic Forecasting 3(3-0) D

ECO 535 Fundamentals of Mathematical Economics 3(3-0) Sp
Application of mathematical techniques in economics. Emphasizes marginal analysis, market models, comparative static equilibrium, and maximization. Prerequisites: ECO 201, ECO 202; MTH 132 or equivalent.

ECO 572 International Monetary Economics 3(3-0) D
International monetary and financial markets are studied. Topics include exchange rate policy, international capital flow, purchasing power parity and exchange rate policy, and the effects of monetary policy on the economy. Prerequisite: ECO 306 or ECO 370.

ECO 585 Econometrics 3(3-0) F
Thorough treatment of statistical estimation methods and their properties for simultaneous equation systems. Also includes discussions of types of systems, solution methods and identification. Prerequisite: STA 580 or equivalent; or permission of instructor.

ECO 590 Seminar Readings 1-3(Spec) F, Sp
Elective honors course for majors or minors in economics. Prerequisites: 12 hours of economics with B average.

ECO 591 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 592 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 593 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 594 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 595 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 596 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 597 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.

ECO 598 Seminar Research Studies 1-3(Spec) F, Sp
Elective research course for economics majors or minors. Prerequisite: 12 credit hours of economics with B average.
EDU 597 Special Studies in Economics 1-3(Spec) D
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 600 and 700 level course descriptions, consult the current Graduate Bulletin.

ECO 600 Introduction to Advanced Economic Analysis 3(3-0) D
ECO 601 Advanced Environmental Economics 3(3-0) D
ECO 603 Economic Effects of Urbanization and Technology 3(3-0) D
ECO 606 Seminar in Economic History 3(3-0) D
ECO 610 Seminar in Economic Thought 3(3-0) D
ECO 614 Seminar in Labor Economics 3(3-0) D
ECO 616 Advanced Macroeconomic Theory 3(3-0) Sp
ECO 619 Continuing Registration for Final Research Project 1(1-0)
ECO 620 Advanced Macroeconomic Theory 3(3-0) F
ECO 622 Seminar in Economic Growth and Development 3(3-0) D
ECO 625 Market Structure and Government Policy 3(3-0) D
ECO 630 Comparative Economic Systems 3(3-0) D
ECO 640 Special Topics in Economic Issues 3-6(Spec) D
ECO 650 American Financial Institutions 3(3-0) D
ECO 655 Seminar in International Economics 3(3-0) D
ECO 657 Advanced Investment Analysis 3(3-0) D
ECO 660 Public Finance and Fiscal Policy 3(3-0) D
ECO 670 Research Methods in Economics 3(3-0) D
ECO 685 Econometric Applications 3(3-0)
ECO 690 Independent Research 1-3(Spec) F, Sp
ECO 798 Thesis 1-6(Spec) F, Sp

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: ECO 590, 591, 597, 640, 690.

Teacher Education (EDU)

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: EDU 590, 595, 630, 642, 643, 707.

EDU 107 Introduction to Teaching 3(3-1) F, Sp
An introductory course designed to provide prospective teacher education students with the opportunity to explore the teaching profession; includes 10 hours of field experience.

EDU 213 Pre-professional Practicum In Bilingual Bicultural Education 2(1-3) F, Sp
A pre-professional field experience which requires observation in a bilingual classroom and tutoring individual or small groups of bilingual students.

EDU 280 Education of Children 3(3-0) Sp
Growth and development of the child, prenatal to adolescent. Includes application to educational settings. Not open to freshmen. Prerequisite: EDU 107.

EDU 290 Technology in Education 3(1-4)
Students will learn to operate various technology-based equipment; select and assess instructional media materials, coursework, and software; and integrate technology and media into K-12 instruction. Prerequisite: none.

EDU 310 Psychological Foundations of Education 3(3-0) F, Sp
Principles of learning, adolescent development and behavior, mental health; emphasis on application to teaching. Prerequisite: admission to Teacher Education program.

EDU 320 Elementary Mathematics Methods 3(3-0) F, Sp
Content, materials, methods, and organization of this area of elementary education. All students must complete a noncredit AV module. Prerequisites: EDU 107, EDU 280, (students with emphasis on the emotionally impaired and mentally impaired are required to have SPE 126 and PSY 220), MTH 151, satisfying the University Mathematics Competency, admission to Teacher Education program. Pre- or corequisite: MTH 152.

EDU 325 Middle Level and High School Teaching Methods 3(3-0)
Prepared to prepare students to design, deliver, and evaluate middle school, junior high and high school instruction. Prerequisites: admission to Teacher Education. Pre- or corequisite: EDU 310.

EDU 330 Reading in the Elementary School 3(3-0) F, Sp
Materials, organization, and methods of teaching reading in the elementary school designed to address the Michigan and national literacy standards and benchmarks. Prerequisites: EDU 280 (students with a major in Teachers of Students with Emotional Impairment or minor in Teachers of Students with Cognitive Impairment are required to have SPE 126; PSY 220); requires admission to Teacher Education Program.

EDU 342 Social Studies Methods in Elementary Education 3(3-0)
Objectives, content, materials, organization, and methods of teaching social studies in the elementary school. Prerequisites: HEV 100 or PSY 220; EDU 290 (students with emphasis on the emotionally impaired and mentally impaired are required to have SPE 126; PSY 220); and admission to Teacher Education.

EDU 345 Science Methods in Elementary Education 3(3-0)
Objectives, content, materials, organization, and methods of teaching science in the elementary school. Prerequisites: HEV 100 or PSY 220; EDU 290 (students with emphasis on the emotionally impaired and mentally impaired are required to have SPE 126; PSY 220); and admission to Teacher Education.

EDU 361 Midtier Practicum 2(1-2)
Preservice teachers will gain practical experience through observing, interacting, collaborating, and teaching in a pre K-12 classroom setting. Identical to MLE 361. Credit may not be earned in more than one of these courses. Prerequisites: admission to Teacher Education; successful completion (C+ or higher) of EDU 280 or HEV 100 or PSY 220.

EDU 431 Corrective Reading in the Classroom 3(3-0) F, Sp
Coursework and study of readers' 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)
The seminar 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 Elementary or Secondary Certification requirements for the Pre-K-12 Regular Education and Special Education teacher education programs.

EDU 436 Independent Study In Secondary Student Teaching 1-6(Spec) F, Sp
- Secondary student teachers study in depth a topic or problem of special interest or need in a field-based and educational setting.

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 456 Special Education Student Teaching 5(Spec) F, Sp
Laboratory experience, full days daily for ten weeks in a classroom appropriate to the special education endorsement. This placement may precede or follow placement in a regular education classroom. All students must make application to and obtain approval of both the Office of Clinical and Field Experiences and the Department of Counseling and Special Education during the first two weeks of the semester prior to the special education student teaching assignment. CR/NC only. Prerequisites for Major-Teachers of the Mentally Impaired: SPE 126, SPE 200, SPE 418, SPE 419; PSY 220. Prerequisites for Major-Teachers of the Emotionally Impaired: SPE 126, SPE 387, SPE 578, SPE 579; PSY 220.

EDU 458 Student Teaching 1-10(Spec)
This experiential course, in which students integrate theory into practice, is the comprehensive culminating activity of the Pre-K-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: 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, (Special Education Majors must take PSY 220 in place of EDU 280), EDU 290 (EDU 290 not required for Special Education majors), EDU 320, EDU 330, EDU 343, EDU 345, EDU 361, EDU 431, EDU 493, EDU 495 and all major and minor requirements listed in the bulletin (additional requirements for Special Education Majors: SPE 455 and SPE 456 or SPE 458). Secondary: a CMU overall GPA of 2.70 or higher; Department approval of major(s) and minor(s) for teaching in content areas; C+ or higher in ALL professional education and methods courses taken before student teaching; Courses REQUIRED to be completed before student teaching: EDU 107, 290, 310, 325, 430, 495 and all major and minor requirements listed in the bulletin (additional requirements for Special Education Majors: SPE 455 and SPE 456 or SPE 458).

EDU 493 Learning and Evaluation in Elementary Education 3(3-0) F, Sp
Theories, purposes, materials, and problems related to learning and the measurement and evaluation of learning. Includes a unit on mental health. Prerequisites: EDU 280 (students with a major in "teachers of students with emotional impairment" or major in "teachers of students with cognitive impairment" are required to have SPE 126 and PSY 220); at least one of the following: EDU 320, EDU 330. Requires admission to Teacher Education program.

EDU 495 Foundations of Education 3(3-0) F, Sp
Examines historical events and philosophical bases of American education. Major emphasis on political and legislative activities, social issues, and economic developments affecting the schools. Prerequisite: admission to Teacher Education program required (except for students not on teacher certification curricula).
EDU 506 Principles and Techniques for Individualizing Instruction 3(3-0) D
Examination of individualized instruction and its classroom implications. Prerequisite: EDU 330 or EDU 340.

EDU 508 Education Workshop 1-6(Spec) D
Identification and study of problems in contemporary education.

EDU 513 Foundations of Bilingual Bicultural Education 3(3-0) D
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) D
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) D
Develops understanding of the creative process. Teaching strategies to encourage creativity in all subjects will be stressed.

EDU 520 Driver Education I 2(2-1) D
Methods and materials in teaching driving and automobile safety. Prerequisite: two years of conviction-free driving.

EDU 524 Driver Education II 2(1-2) D
Defensive driving, traffic safety, highway engineering, law enforcement, field problems, research, practice teaching. Prerequisite: EDU 520.

EDU 525 Early Childhood Education 3(3-0) D
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) D
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) D
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) D
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 530.

EDU 530 Driver Education III 2(2-0) D
Analysis of traffic problems, behavioral and personality characteristics of drivers.

EDU 532 Reading in the Content Areas 3(3-0) D
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 3(2-3) D
Diagnostic procedures and use of remedial and developmental techniques. Exploration of the role of the specialist. Prerequisites: EDU 431, EDU 532; Pre or Co-Requisite: EDU 538.

EDU 534 Current Issues in Teaching Driver Education 2(2-0) D
Students will develop an understanding of accident prevention issues, police policies, visual and audio resources, accident statistics, highway engineering policies and substance abuse issues. Prerequisite: EDU 520, EDU 524 or concurrent enrollment in either.

EDU 538 Coordination of the Language Arts with Reading 3(3-0) D
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 Whole Language: Theory and Practice 3(3-0) D
Emphasizes whole language 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) D
This course will reinforce content teaching strategies and provide a conceptual framework for integrating reading, writing, and thinking for learning throughout the curriculum. Prerequisites: EDU 450 or EDU 532 or equivalent.

EDU 556 Meeting the Socio-Emotional Needs of Young Children 2(2-0) D
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) D
Survey of psycho-motor and cognitive stages of development. Assessment of cognition and psycho-motor repertoires, concepts of intelligence, motor skills and development of an appropriate sequence of activities.

EDU 566 Independent Study in Elementary Education 1-6(Spec) F, Sp
Research or project. Prerequisites: 15 semester hours of professional education and approval of unit coordinator.

EDU 567 Home Environment Practicum of Early Childhood 1(1-0) D
Field-based experience in planning, implementing, and evaluating the dynamics of home visitations. Interpretation of program goals, objectives, and philosophies. Interview techniques, follow-up evaluation, and implications.

EDU 568 Human Ecology for Improving Relations in School and Community 2(Spec) D
Improvement of parent-school-community relations through parent education, involvement and interaction in the early childhood teaching-learning process. Cross-cultural and community center focus.

EDU 590 Microcomputers in Classroom Instruction 3(2-3) D
Students will study and practice the integration of microcomputer technology in classroom instruction and management, with emphasis upon software evaluation and lesson development. Identical to SPE 510. Credit may not be earned in more than one of these courses. Prerequisites: EDU 310, EDU 320, EDU 330 or equivalent with instructor permission.

EDU 595 Telecommunication in Education 3(2-2) D
The study and laboratory exploration of telecommunication as used in schools and classrooms: e-mail, educational and general networks, collaborative lessons. Prerequisites: EDU 590 or equivalent with permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.
EDU 687, 688, 689 Independent Study 1-3(Spec) F, Sp
EDU 695 Readings in Education 2(Spec) D
EDU 698 Thesis 1-6(Spec) F, Sp
EDU 705 Theory and Practice in Curriculum Development 3(3-0) D
EDU 706 Theory and Practice of Instruction 3(3-0) D
EDU 707 Seminar: Issues in Educational Technologies 3(3-0)
EDU 708 Distance Education 3(3-0)
EDU 709 Innovative Uses of Technology 3(3-0)
EDU 710 Seminar: Terminal Project 3(3-0)
EDU 730 Seminar: Issues in Literacy 3(3-0) D
EDU 750 Seminar: Problems in the Supervision of Student Teaching 3(3-0) D
EDU 755 Advanced Research Design and Interpretation 3(3-0) D
EDU 770 Practicum in Systematic Curriculum Development 3(3-0) D
EDU 776 Seminar: Issues of Education 3(3-0) D
EDU 777 Seminars in Child Growth and Development 2-4(Spec) D
EDU 780 Master of Arts Capstone Seminar 3(3-0)

Credit Limitation. Courses that are subject to graduate credit limitation under the policy covering uncapped content or variable credit are the following: EDU 508, 687, 688, 689, 695.

Engineering (EGR)

The complete description of the Engineering & Technology Department is found in the College of Science & Technology.

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. Prerequisite: MTH 105 or higher or permission of instructor.

EGR 251 Engineering Statics 3(3-0)
The course will cover free body diagrams and equilibrium of particles and rigid bodies, internal forces in machines, and beams, friction, and application to machines. Prerequisites: MTH 132; PHY 145; pre- or co-requisite: EGR 120.

EGR 253 Engineering Dynamics 3(3-0)
Kinematics and dynamics of particles and rigid bodies. Relationship between the forces acting on bodies, mass, and the motion of the body. Introduction to vibrations. Prerequisites: EGR 251, MTH 133.

EGR 255 Strength of Materials 3(3-0)
Mechanical stress and strain, deformation under tension and compression, torsion of shafts, beam bending stresses and deflections, design of beam and shafts. Prerequisites: EGR 251, MTH 133.

EGR 290 Circuit Analysis I 3(3-0)
Experimental laws, network theorems, and computer analysis and design of linear circuits. Network responses to various forcing functions using time-domain and phasor-domain methods. Prerequisites: MTH 133; PHY 145; pre- or co-requisite: EGR 120.

EGR 292 Circuit Analysis II 3(3-0)
DC and steady-state AC circuit analysis, frequency response, network theorems, two ports, nonlinear elements, transients, step and impulse response, Laplace transform, and computer methods. Prerequisites: EGR 290; pre- or co-requisite: MTH 232 or MTH 334.

EGR 294 Digital Circuits 3(3-0)
Numbering systems, binary codes, logic gates, combinational and sequential logical circuits, programmable logic devices, synchronous and asynchronous state machine, and microcomputer memory devices. Prerequisites: EGR 290.

EGR 296 Circuit Lab 3(1-4)
General exposure to basic laboratory safety and equipment, measurement techniques, and hands-on experience to experimentally verify electrical and digital circuits. Prerequisites: EGR 292, EGR 294.

EGR 355 Engineering Materials 3(3-0)
An introduction to engineering materials including metals and alloys, ceramics, polymers, and composites. Materials processing, properties and selection and their role in design. Prerequisites: CHM 131 or CHM 161; MTH 132; PHY 146; EGR 251 or permission of instructor.

EGR 356 Thermodynamics 3(3-0)
Introductory course in engineering thermodynamics which covers general energy concepts, first and second laws of thermodynamics, entropy, processes, and power cycles. Prerequisites: CHM 131 or CHM 161, EGR 251, MTH 233, PHY 146.

EGR 358 Fluid Mechanics 3(3-0)
Study of the basic principles of fluid statics, fluid dynamics, Bernoulli's theorem, viscous flow, boundary layers, turbulence, pump selection, forces developed by fluids in motion. Prerequisites: MTH 133, PHY 145; EGR 251 or permission of instructor.

EGR 359 Machine Design I 3(3-0)
Introduction to machine design. Theories of failure and fatigue design, design of mechanical elements such as screws, fasteners, connectors, welded joints, and flexible mechanical elements. Prerequisites: EGR 255, IET 154, MTH 233.

EGR 360 Solid Mechanics Laboratory 3(1-4)
Experimental skills and techniques with applications to material behavior, stress and strain analyses. Prerequisites: PHY 145, PHY 175; EGR 251, EGR 253, EGR 255; pre- or co-requisite: EGR 355.

EGR 371 Robotics & Automation 3(2-2)
Theory and application of robotics and automation including modeling of robot mechanism and driving components, robot control systems and components, robot motion control and programming. Prerequisites: CPS 180; EGR 251; EGR 290; MTH 232.

EGR 390 Microelectronic Circuits I 3(3-0)
Introduction to nonlinear circuit elements; operation, design and analysis of circuits at the transistor level. Prerequisites: EGR 290.

EGR 392 Microelectronic Circuit II 3(3-0)
Design and analysis of electronic circuits including: single/multistage transistor amplifiers, op amp circuits, feedback amplifiers, filters, A/D and D/A converters. Prerequisites: EGR 390.

EGR 394 Computer Circuit Simulation 3(2-2)
This course reinforces basic circuit analysis principles using PSpice software and teaches students various computer circuit analysis and design techniques. Prerequisites: EGR 292.

EGR 396 Microprocessor Fundamentals 3(3-0)
Introduction to architecture, operation, and application of microprocessor systems and microcontrollers. Prerequisites: EGR 294, EGR 390.

EGR 398 Microelectronics and Computer Lab 3(1-4)
Laboratory exploration of semiconductor devices, discrete and integrated amplifiers; feedback: microcomputer systems including input/output, assembly language programming and interrupt processing. Prerequisites: EGR 392, EGR 396.

EGR 437 Directed Research in Engineering 1-3(Spec)
Project research under guidance of a faculty advisor to focus on a topic of current interest. Self-guided readings, analysis, computer simulations and/or experimental techniques. Prerequisite: permission of instructor.

EGR 453 Vibration 3(3-0)
Introduction to concepts such as natural frequency, damping, resonance. Free and forced vibrations of undamped and damped, single-degree of freedom, multi-degree of freedom systems. Prerequisites: EGR 253, MTH 232.

EGR 456 Thermodynamics II & Heat Transfer 3(3-0)
Continuation of Thermodynamics I. In addition, fundamentals of heat transfer are studied, including steady state and transient heat conduction, convection, and radiation. Prerequisites: EGR 356, EGR 358, MTH 232.

EGR 458 Measurement and Instrumentation Laboratory 3(1-4)
Theory and application of mechanical measurements, instrumentation, and computer-based data acquisition. Prerequisites: EGR 290, EGR 355, EGR 360; STA 382.

EGR 459 Machine Design II 3(3-0)
Force analysis, and design of spur, helical, and bevel gears. Antifriction bearings, lubrication and journal bearings, shaft design, mechanical spring, clutches, brakes, and couplings design. Prerequisites: EGR 293, EGR 359.

EGR 460 Thermal Fluids Laboratory 3(1-4)
Experimental skills and techniques including design, analysis, and reporting. Applications in fluid flow, thermodynamics, and heat transfer using modern sensors, instrumentation, and data acquisition systems. Prerequisites: EGR 356, EGR 358, EGR 360; pre- or co-requisite: EGR 456.

EGR 476 Mechanics of Composite Materials 3(3-0)
Introduction to composite material mechanics with emphasis on selection, analysis, and use. Stiffness and strength theories for uniaxial and multidirectional materials, with a macromechanical emphasis. Prerequisites: EGR 255, EGR 355; MTH 232.

EGR 477 Finite Element Analysis 3(3-0)

EGR 478 Advanced Mechanics of Materials 3(3-0)
Stress and strain in three dimensions, constitutive laws, failure theories. Beams on elastic foundations, curved bars, inelastic behavior, instability, plates and shells, energy methods. Prerequisites: EGR 255, EGR 355; MTH 232.

EGR 479 Fracture and Fatigue Analysis 3(3-0)
Fracture mechanics and fatigue crack nucleation and propagation, stress intensity factors, fracture toughness and design philosophy concepts. Fracture and fatigue tests. Statistical and reliability analysis. Prerequisites: EGR 255, EGR 355; MTH 233; STA 382.

In addition, fundamentals of heat transfer are studied, including steady state and transient heat conduction, convection, and radiation. Prerequisites: EGR 356, EGR 358, MTH 232.

EGR 458 Measurement and Instrumentation Laboratory 3(1-4)
Theory and application of mechanical measurements, instrumentation, and computer-based data acquisition. Prerequisites: EGR 290, EGR 355, EGR 360; STA 382.
EGR 489 Senior Design I 3(2-2)
First course in the senior capstone design sequence integrating design methods and engineering techniques in the context of a realistic engineering project. Prerequisites: senior standing with successful completion in all required 200 and 300 level EGR courses in a declared engineering major; or department chair approval.

EGR 490 Computer Data Acquisition & Instrumentation 3(3-0)
Introduction to data acquisition using A/D converters; fundamentals of transducers; dynamic response; amplifiers; theory of A/D and D/A converters; error analysis-statistics. Prerequisites: EGR 396, STA 382.

EGR 492 Automatic Control Systems 3(2-2)
Theory and design of automatic control systems including modeling of physical systems, control system characteristics, system stability analysis, frequency response analysis, and PID controller design. Prerequisites: EGR 371, EGR 392, MTH 232.

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. Prerequisites: EGR 392.

EGR 496 Communication Systems 3(3-0)
Amplitude, frequency, and pulse modulation, narrow-band noise, signal-to-noise ratios, pulse shaping, timing recovery, carrier synchronization, sampling, quantization, and coding. Prerequisites: MTH 233; STA 382; pre-or co-requisite: EGR 392.

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 233; MTH 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. Prerequisites: EGR 489.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

EHS 605 Creativity and Problem-Solving 3(3-0) D
EHS 606 Methods and Materials for Teaching the Gifted and Talented, K-12 3(3-0) D
EHS 690 Developing and Implementing Programs for the Gifted and Talented 1-6(Spec) D
EHS 697 Special Topics 1-6(Spec)

English Language and Literature (ENG)
The complete description of the Department of English Language and Literature is found in the College of Humanities and Social & Behavioral Sciences. Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: ENG 323.

ENG 070 Grammar for International Students I 3(3-0) F, Sp
An intensive grammar class for non-native English speakers enrolled in the English Language Institute at the beginning or intermediate levels. CR/NC only. Prerequisite: admission to ELI.

ENG 071 Grammar for International Students II 3(3-0) F, Sp
An intensive grammar class for non-native speakers enrolled in the English Language Institute at the intermediate or advanced levels. CR/NC only. Prerequisite: admission to ELI.

ENG 072 ELI Composition I 3(3-0) F, Sp
A course in basic composition for students enrolled in the English Language Institute. Focus will be on paragraph development. CR/NC only. Prerequisite: admission to ELI.

ENG 073 ELI Composition II 3(3-0) F, Sp
A course in advanced composition for students enrolled in the English Language Institute. Focus will be on writing formal essays. CR/NC only. Prerequisite: admission to ELI.

ENG 074 College Skills I 3(3-0) F, Sp
Intensive and timed reading skills, computer use, and academic vocabulary development for beginning and intermediate students enrolled in the English Language Institute. CR/NC only. Prerequisite: admission to ELI.

ENG 075 College Skills II 3(3-0) F, Sp
Advanced note-taking, reading skills, and academic vocabulary development for students enrolled in the English Language Institute. CR/NC only. Prerequisite: admission to ELI.

ENG 076 American English Pronunciation for International Students I 3(3-0) F, Sp
Basic English pronunciation for students enrolled in the English Language Institute. CR/NC only. Prerequisite: admission to ELI.

ENG 077 American English Pronunciation for International Students II 3(3-0) F, Sp
An advanced pronunciation course for non-native English speaking students who wish to work on accent reduction. CR/NC only. Prerequisite: admission to ELI or permission of instructor.

ENG 080 Beginning English - Core 8(8-0) F, Sp
Intensive development of basic English skills for beginning students; open to ELI students only. CR/NC only. Prerequisite: admission to ELI or permission of instructor.

ENG 081 Intermediate Intensive English Core 8(8-0) F, Sp
Intensive development of intermediate English skills for students with some proficiency in English. Open to ELI students only. CR/NC only. Prerequisite: admission to ELI.

ENG 082 Advanced Intensive English Core 8(8-0) F, Sp
Intensive development of advanced English skills for students with substantial proficiency in English, CR/NC only. Prerequisite: admission to ELI.

ENG 083 Advanced Grammar for International Students 3(3-0)
An advanced course in the structure of English for international students who require further instruction in grammar to alleviate problems in speaking and writing skills. CR/NC only. Prerequisites: undergraduate or graduate status; TOEFL score of 500-547 (paper-based TOEFL), 173-210 (computer-based TOEFL), or Dual Placement on the ELI Placement Test Series; permission of the director of the English Language Institute.

ENG 084 Academic Reading Skills for International Students 3(3-0) F, Sp
For non-native speakers of English, this course focuses on developing proficiency in reading for academic purposes; improving overall reading comprehension, speed, and vocabulary development. CR/NC only. Prerequisite: TOEFL score between 500 and 550.

Education (EHS)
The complete description of Education is found in the College of Education & Human Services.

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 or permission of instructor. 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) F, Sp
Provides instruction and practice to assist students in improving study skills. Enrollment limited to students notified of eligibility or permission of instructor.

EHS 103 Reading Improvement 3(3-0) F, Sp
Provides instruction and practice to assist students in improving reading speed, vocabulary, and comprehension. Prerequisite: credit in EHS 093, satisfactory score on pre-test, or permission of instructor.

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 1-6(Spec)
Selected topics, problems, or issues of current interest will be presented, typically in workshop, seminar, or conference format. Prerequisite: permission of instructor.

EHS 200 Computer Applications in Education, Health, and Human Services 3(3-0) D
Surveys computer applications in education, health, and human services. Emphasizes use of existing software - word processing, spreadsheet use, etc. Some discussion of mainframe usage occurs.

EHS 397 Special Topics 1-6(Spec)
Selected topics, problems, or issues of current interest will be presented, typically in workshop, seminar, or conference format. Prerequisite: permission of instructor.

EHS 568 Identification of the Gifted/Talented/ Creative Student 3(3-0) D
Procedures for gathering and using data for identification, program planning and program evaluation are presented. Experience administering and interpreting standardized tests and surveys provided.
ENG 286 Academic Writing for International Students 3(3-0) F, Sp
For non-native speakers of English at the undergraduate level, this course focuses on developing proficiency in writing English for academic purposes. CR/NC only. Prerequisite: TOEFL score between 500 and 550.

ENG 288 Spoken English for International Students 3(3-0) F, Sp
Developing proficiency in pronunciation and oral communication. Emphasis on accent reduction, oral fluency, and academic communication situations. CR/NC only. Prerequisite: TOEFL score above 500.

ENG 299 Academic Listening and Note-taking for International Students 3(3-0) F, Sp
Developing proficiency in listening/ note-taking skills. Emphasis on listening comprehension and structure of academic lectures. CR/NC only. Prerequisite: TOEFL score above 500.

ENG 900 Oral Proficiency for Graduate Students 3(3-0) F, Sp
Developing proficiency in oral communication and listening/ note-taking skills. Emphasis on listening, comprehension, accent reduction, oral fluency, oral reports, and graduate level presentations. CR/NC only. Prerequisites: graduate level status; TOEFL score above 520.

ENG 901 Writing Seminar for Graduate Students 3(3-0) F, Sp
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 100 Basic Writing 3(3-0) F
Introductory course in analytic writing and Standard Written English. Provides eligible students with a semester of writing prior to taking English 101 or its equivalent.

ENG 101 Freshman Composition 3(3-0) F, Sp
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) F, Sp
Alternative to 101. Open only to freshmen notified of their eligibility. Individualized instruction. Not open to former ENG 101 students. Corequisite: ENG 099.

ENG 134 Introduction to Literature 3(3-0) F, Sp
The novel, short story, poetry, and drama. (Group I-B)

ENG 175 The Nature of Language 3(3-0) F, Sp
An introduction to the study of language in relation to social systems. Topics include linguistic structures, language acquisition, dialects, and language change. (Group III-B)

ENG 198 American Language for International Students: Writing Component 3(3-0) F, Sp
Fundamental principles of nonfiction prose writing for students whose native language is not English. Practice in developing college-level competency in writing skills. Alternative to ENG 101 or ENG 103/099. Credit may not be earned in more than one of these courses.

ENG 199 American Language for International Students: Speech Component 3(3-0) F, Sp
Theory and process of human communication. Practice in developing oral communication skills. Alternate to SDA 101. Credit may not be earned in more than one of these courses.

ENG 201 Advanced Composition 3(3-0) F, Sp
A course in academic writing, analytical thinking, and research skills, focused on one of the following: A. Humanities, B. Natural Sciences, C. Social Sciences, or D. Departmental Fields of Study. Prerequisite: a grade of C or better in ENG 101; completion of 36 semester hours.

ENG 234 Introduction to Literary Analysis 3(3-0) F, Sp
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) F, Sp
Beginning to Romantic Period. Primarily for sophomores; open to freshmen. (Group I-A)

ENG 236 English Literature: Romantic Period to Present 3(3-0) F, Sp
Romantic period to present. Primarily for sophomores; open to freshmen. (Group I-A)

ENG 251 American Literature: Colonial Through the Romantic Period 3(3-0) F, Sp
Emphasis on major writers and trends. Primarily a sophomore course but open to freshmen. (Group I-A)

ENG 252 American Literature: Realistic Period to the Present 3(3-0) F, Sp
Emphasis on major writers and trends. Primarily a sophomore course but open to freshmen. (Group I-A)

ENG 260 Introduction to General Semantics 3(3-0) F, Sp
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) F, Sp
Major world literature to the medieval period including Greek and Roman works. (Group I-A)

ENG 262 Masterpieces of European Literature 3(3-0) F, Sp
Significant works of medieval and modern periods. (Group I-A)

ENG 271 Modern Grammar 3(3-0) F, Sp

ENG 294 Introduction to Creative Writing 3(3-0) F, Sp
The basic methods and techniques in writing poetry and fiction. Prerequisite: ENG 101.

ENG 301 Nonfiction Writing 3(3-0) F
Emphasis on skillful writing through individual projects in nonfiction prose forms. Prerequisite: none.

ENG 303 Technical and Professional Report Writing 3(3-0) F, Sp
Conducting research, organizing data, and writing technical and professional reports. Not open to freshmen.

ENG 305 Legal Writing 3(3-0) D
Advanced composition for pre-law and paralegal students. Particular emphasis on writing law school and bar exams. Prerequisite: ENG 101.

ENG 311 Teaching Literature in the Secondary School 3(3-0) F, Sp
Methods of teaching students to read extensively and critically. Open only to juniors and seniors preparing to teach.

ENG 315 Teaching Writing in the Elementary School 4(3-1) F, Sp
Developing methods and constructing materials for teaching writing, developing ways to integrate writing across subject areas, practicing these methodologies through mid-tier experiences. Prerequisite: junior or senior standing; acceptance to Teacher Education program preferred.

ENG 319 Teaching Composition in the Secondary School 4(3-1) F, Sp
Methods for teaching students to communicate clearly in writing. Open only to juniors and seniors preparing to teach. Prerequisite: students must be accepted into the Teacher Education program.

ENG 321 Modern Poetry 3(3-0) F, Sp
Major modern poets such as Frost, Yeats, Williams, Pound, Eliot, followed by more recent poets.

ENG 323 Fantasy and Science Fiction 3(3-0) F, Sp
History, art, and meaning of fantasy and science fiction. Strong emphasis on twentieth-century materials and prize-winning literature. (Group I-A)

ENG 324 Popular Culture in America 3(3-0) Sp
Historical and other relationships between popular and elitist art forms; the role of popular arts in the growth of American culture.

ENG 325 American Folklore 3(3-0) F
Discussion and comparison of American folktales, songs, superstitions, and customs preserved in both the oral and literary traditions.

ENG 326 The Literary Dimensions of Film 3(2-2) F, Sp
Study of film from the viewpoint of formal literary criticism and cultural history through analysis of original screenplays, genre movies, and adaptations. (Group I-B)

ENG 327 Women Writers 3(3-0) Sp
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 North American Indian 3(3-0) F
A study of Native American literature within its historical context.

ENG 329 African American Literature 3(3-0) F, Sp
Examines the literary and cultural contribution of African Americans from colonial times to present through written and orally communicated poetry, fiction, drama, non-fiction. (Group IV-C)

ENG 330 Mythological Backgrounds of Western Literature 3(3-0) F, Sp
The origins and development of mythic patterns with major emphasis on the adaptation and interpretation of classical and Northern myths to literary usage. (Group I-A)
ENG 322 Contemporary Literature and Thought 3(3-0) F
Readings in contemporary (post-World War II) literary genres relative to contemporary thought.

ENG 333 Literatures of Non-Western Cultures 3(3-0) F
Introduction to literatures of non-Western cultures, emphasizing cultural differences from the west, that is, the United States and western Europe. Prerequisites: sophomore standing or permission of instructor.

ENG 334 Literary Theory 3(3-0) F, Sp
Basic terminology and techniques of literary criticism. Prerequisite: 3 hours in literature. (Group I-B)

ENG 336 Early Modern English Literature 3(3-0) F
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 234.

ENG 339 Victorian Literature and Thought 3(3-0) Sp
Social, economic, industrial, philosophical, and religious ideas as expressed in the literature of the nineteenth century.

ENG 340 Modern British Literature 3(3-0) F (Even Year)
Selected works in British literature since the 1920s, including poetry, fiction, drama, and general prose.

ENG 345 Studies in Authors 3(3-0) F, Sp
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) F, Sp
Study of 8-12 major comedies, histories, and tragedies, with consideration of their Elizabethan and Jacobean background. Prerequisite to ENG 549.

ENG 351 American Literature: Colonial and Early National Periods 3(3-0) F (Even Year)
The various literary genres from the formative years of America.

ENG 352 American Literature: Romantic Period 3(3-0) F (Odd Year)
Major literary movements and major authors of the first half of the nineteenth century.

ENG 353 American Literature: Realistic Period 3(3-0) Sp (Even Year)
Significant trends in later nineteenth century and early twentieth century American literature; local colorists, major Realists, early Naturalists.

ENG 354 American Literature: Modern Period 3(3-0) Sp (Odd Year)
Major literary movements and authors from the early twentieth century to WWII. Special emphasis on literary modernism.

ENG 362 Literature of the Medieval World 3(3-0) Sp
The study of epic tradition during the medieval period and the rise of the romance.

ENG 365 The Bible as Literature 3(3-0) Sp
A study of the content and literary forms of Biblical literature.

ENG 371 Pedagogic Grammar 2(2-0) F, Sp
Links the study of college level grammar and its application in the classroom. Focuses on both professionally written and student generated texts. Prerequisite: junior standing or permission of instructor.

ENG 375 Introduction to Linguistics 3(3-0) F, Sp
A survey of the field of linguistics, including discussion of the sounds, grammar, and semantics of language.

ENG 379 History and Development of the English Language 3(3-0) F (Odd Year)
A study of the English language from its origin to the present.

ENG 381 Children's Literature 3(3-0) F, Sp
Literary analysis of prose and poetry suitable for children grades K through nine. Open only to juniors and seniors.

ENG 385 Poetry for Children and Young Adults 3(3-0) Sp
Enhancing appreciation and knowledge of poetry for children and young adults; developing effective ways of presenting this poetry in the elementary/middle school classroom. Prerequisite: junior standing or permission of the instructor.

ENG 391 Creative Writing: Fiction 3(3-0) F, Sp
Discussion and critical evaluation of student fiction. Prerequisite: Grade of "B" or better in ENG 294 or permission of instructor.

ENG 392 Creative Writing: Poetry 3(3-0) F, Sp
Discussion and critical evaluation of student poetry. Prerequisite: Grade of "B" or better in ENG 294 or permission of instructor.

ENG 395 Special Topics 1-12(Spec) F, Sp
Consideration of subjects not listed in the regular department offerings. May be repeated when the content is not a duplication of a previous special topics offering. English majors and minors, see general statement A. Prerequisite: permission of instructor.

ENG 396 Honors Studies in English 3-3(Spec) F
Opportunities for honors students to study topics not offered in the regular curriculum. Repeatable when content does not duplicate previous offerings.

ENG 397 Independent Study 1-8(Spec) F, Sp
Explorations of special problems in language and literature individually agreed upon by student and instructor. Approval by instructor and department chairperson required before registration.

ENG 402 Argumentation and Exposition 3(3-0) F
A study of modern theories and techniques of persuasion and analysis, focusing on their uses in contemporary culture. Prerequisites: two writing courses (ENG 101, ENG 201, or ENG 301).

ENG 435 Studies in Texts 3(3-0) F, Sp
Intensive reading of one, two or three major literary works in English, with historical and critical backgrounds and biographical and creative contexts. Prerequisites: ENG 234.

ENG 439 English Romantic Poetry and Prose 3(3-0) F (Even Year)
Emphasis on Blake, Wordsworth, Coleridge, Keats, Shelley, and Byron. Prerequisite: 6 hours of literature.

ENG 441 Contemporary English Prose 3(3-0) Sp (Even Year)
Important novelists and dramatists in contemporary Britain. Prerequisite: 6 hours of literature.

ENG 454 Contemporary American Prose 3(3-0) Sp
Important novelists and dramatists in contemporary United States. Prerequisite: 6 hours of literature.

ENG 455 The American Novel 3(3-0) Sp
The development of the novel as seen in the works of representative authors. Prerequisite: 6 hours of literature.

ENG 460 Senior Seminar: Current Issues in English 3(3-0) F, Sp
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) F
Exploration of the literary and cultural heritage of countries other than the U.S. through modern and folk literature suitable for today's youth. Prerequisites: ENG 234 or ENG 381.

ENG 482 Fantasy for Youth 3(3-0) F, Sp
Nature, purpose, and value of fantasy for youth; emphasis on contemporary types. Prerequisite: ENG 234 or ENG 381, or permission of instructor.

ENG 491 Advanced Fiction Writing 3-6(3-0) F, Sp
Concentration upon individual projects in fiction. May be repeated up to 6 hours. Prerequisites: ENG 391 or permission of instructor.

ENG 492 Advanced Poetry Writing 3-6(3-0) F, Sp
Concentration upon individual projects in poetry. May be repeated up to 6 hours. Prerequisites: ENG 392 or permission of instructor.

ENG 493 Advanced Nonfiction Writing 3-6(3-0) F
Concentration on individual projects in nonfiction. May be repeated up to 6 hours. Prerequisite: ENG 301 or ENG 294 or permission of instructor.

ENG 510 Writing Center Practicum 3(1-4) F, Sp
Examines the major problems of dealing with less-skilled writers and offers a mediated tutoring experience with such writers. Prerequisite: senior standing or permission of instructor.

ENG 513 Special Topics 1-6(Spec) D
ENG 514 Language and Media Discourse 3(3-0) Sp (Odd Year)
Rhetorical technique and theories in print and non-print media.

ENG 517 Reading and the English Classroom 3(3-0) F (Odd Year)
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) Su
Research and methodology in the teaching of composition.

ENG 535 History of Literary Criticism 3(3-0) Sp (Odd Year)
Review of critical approaches and attitudes in the history of English literature. Prerequisites: 6 hours of literature, or permission of instructor.

ENG 539 Seminar in Major Nonfiction Writers 3-9(Spec) F (Even Year)
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: restricted to seniors and graduate students.

ENG 545 Chaucer 3(3-0) F (Odd Year)
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) D
A study of several English writers selected by the instructor. Prerequisite: 6 hours of English literature. May be repeated to a maximum of 9 hours.

ENG 549 Advanced Shakespeare: Tragedy and Problem Plays 3(3-0) Sp
Examination of the development of Shakespearean tragedy and the final plays. Prerequisite: a previous university course in Shakespeare (ENG 349 or equivalent).
ENG 559 Seminar in Major American Writers 3-9(Spec) D
A study of several American writers selected by the instructor. Prerequisite: 6 hours of American literature. May be repeated to a maximum of 9 hours.

ENG 561 European Romanticism: A Comparative Approach 3(3-0) D
Comparative study of representative works written during the Romantic movement in Europe. Literary themes will be evaluated from an interdisciplinary perspective. (Group IV-A)

ENG 569 Seminar in Major World Writers 3-9(Spec) D
A study of major world writers selected by the instructor. Prerequisite: 6 hours of literature. May be repeated to a maximum of 9 hours.

ENG 570 Old English 3(3-0) F (Even Year)
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) F (Even Year)
Principles and techniques for teaching English to students whose first language is not English. Prerequisite: ENG 375 or equivalent.

ENG 573 Linguistics and Reading 3(3-0) Sp (Even Year)
The reading process, the effects of language on reading, the relation between language and writing, and the ways people process information. Prerequisite: ENG 375 or ENG 576.

ENG 574 TESOL Materials, Assessment, Curriculum 3(3-0) Sp (Even Year)
Techniques for designing curricula, teaching materials, and tests and other assessment tools for ESL classrooms. Prerequisites: ENG 571.

ENG 576 Fundamental Issues in Language 3(3-0) D
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) Sp (Odd Year)
An introduction to the principles and theories of second language acquisition, and their implications for language teaching. Prerequisites: ENG 375 or permission of instructor.

ENG 578 Applied Sociolinguistics 3(3-0) D
Topics include cross-cultural aspects of conversation, speech act theory of language and gender, non-verbal behavior. Role of socio-cultural variables in language acquisition will also be discussed. Prerequisites: ENG 375 or permission of instructor.

ENG 579 Topics in English Linguistics 3(Spec) D
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) F, Sp
Reading interests and library materials of junior and senior high school students; methods of stimulating reading. Subject grouping of books related to adolescent reading interests and needs. Identical to LMT 580. Credit may not be earned in more than one of these courses.

ENG 581 The History of Children’s Literature 3(3-0) Sp
Major trends in the history of children’s literature as they emerged under certain philosophical, educational, and social influences in England, America, and Europe. Emphasis on literary analysis.

ENG 582 Cultural Pluralism in Young Adult and Children’s Literature 3(3-0) F, Sp
The exploration of the literary and cultural heritage of American minorities including Black, Mexican, and Native American, primarily through folk literature, fiction, and biography. Prerequisites: ENG 381 or instructor permission. (Group IV-C)

ENG 583 The Heroic Tradition in Children’s Literature 3(3-0) F
Study of the hero in epic, myth, folklore, and legend; including modern examples.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

ENG 601 Graduate Composition 3(3-0) Sp
ENG 602 Research Materials and Methods 3(3-0) F
ENG 603 Advanced Professional Communications 3(3-0) F (Odd Year)
ENG 614 Practicum in Teaching College Composition 3 (3-0)
ENG 615 Problems in Teaching English 3(3-0) Sp (Odd Year)
ENG 618 Teacher-Research Methods 3(3-0) Sp (Even Year)
ENG 619 Continuing Registration for Final Research Project 1(1-0) F, Sp
ENG 621 Seminar in Contemporary Poetry 3(3-0) Sp
ENG 622 Seminar in Contemporary Fiction 3(3-0) Sp
ENG 635 Seminar in English Literature 3-9(Spec) F, Sp (Even Year)
ENG 636 Seminar in Critical Problems 3(3-0) Sp (Even Year)
ENG 637 Seminar in Rhetoric and Composition 3-6(Spec) F (Even Year)
ENG 638 Seminar in Textual Analysis and Editing 3(3-0) F (Odd Year)
ENG 656 Seminar in American Literature 3-9(Spec) F, Sp (Odd Year)
ENG 665 Seminar in World Literature 3-9(Spec) F (Odd Year)
ENG 672 Applied Linguistics in Written Communications 3(3-0) Sp (Odd Year)

ENG 673 English Phonology for Language Teachers 3(3-0) Sp (Odd Year)
ENG 674 English Grammar for Language Teachers 3(3-0) F (Odd Year)
ENG 675 Seminar in English Linguistics 3(3-0) F
ENG 681 Seminar in Children’s Literature 3(3-0) F
ENG 690 Practicum in TESOL 1-3(Spec) F, Sp
ENG 691 Seminar: Writing Fiction 3-6(Spec) F
ENG 692 Seminar: Writing Poetry 3-6(Spec) F
ENG 693 Seminar in Writing Nonfiction 3-6(Spec) Sp (Even Year)
ENG 697 Independent Study 3-6(Spec) F, Sp
ENG 718 Internship: Teaching 6(Spec) (TBA)
ENG 719 Internship: Professional Communication 3-6(Spec) (TBA)
ENG 799 Thesis 1-6(Spec) F, Sp

Credit Limitation. Courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: ENG 513, 547, 559, 569, 579, 697.

Entrepreneurship (ENT)

ENT 101 Introduction to Entrepreneurship 3(3-0) F, Sp
This course presents the growing phenomenon of entrepreneurship in the domestic and international environments. Does not count for credit on the Business Administration majors or minors.

ENT 200 Introduction to Entrepreneurship Law 3(3-0)
A course to introduce future entrepreneurs to the legal requirements for forming a business in Michigan. Identical to BLR 200. Credit may not be earned in more than one of these courses.

ENT 210 Accounting Information for Entrepreneurial Decision Making 3(3-0)
Accounting concepts and practices for entrepreneurs/small business owners. Emphasis given to the use of accounting tools to solve small business problems. No credit if credit has been earned in ACC 201. Does not count on the School of Accounting major or minor. Identical to ACC 210. Credit may not be earned in more than one of these courses.

ENT 213 Economics for Entrepreneurs 3(3-0)
Introduction to the economic way of thinking and its applications to decision making in the business world. Emphasis on understanding and applying economic concepts. Identical to ECO 213. Credit may not be earned in more than one of these courses. Does not count as credit for the Economics major or minor.

ENT 221 Marketing Strategies for Entrepreneurs 3(3-0)
Marketing for small business; identification of a product and/or service potential; advertising plans, marketing strategy, store location, purchasing procedures and inventory control. Identical to MKT 221. Credit may not be earned in more than one of these courses.

ENT 300 Software Applications in Business 3(3-0)
The application of database and spreadsheet software as integrated business problem solving tools. Identical to BIS 300. Credit may not be earned in more than one of these courses. Prerequisite: 56 semester hours completed.

ENT 320 Financial Management of the Entrepreneurial Venture 3(3-0)
A practical application of basic financial management principles to the operation of a small business. Identical to FIN 320. Credit may not be earned in more than one of these courses. Current PC software and casework utilized as the teaching medium. Prerequisite: ACC 210; signed major in Entrepreneurship.

ENT 416 Entrepreneurship in the Global Economy 3(3-0)
Course focuses on how small companies recognize and seek out business opportunities worldwide; primarily a case-based course with a major field-study component. Identical to MGT 416. Credit may not be earned in more than one of these courses. Does not count on the Department of Management and Law majors or minors. Prerequisites: ENT 213, ENT 221; 56 semester hours completed; signed major in Entrepreneurship.

ENT 419 Entrepreneurship and Small Business Management 3(3-0)
This course covers concepts, processes, and techniques for managing small business. The course focuses on aspects that are unique to small business management and small business ownership. This course is the capstone course on the entrepreneurship major. Identical to MGT 419. Credit may not be earned in more than one of these courses. Does not count on the Department of Management and Law majors or minors. Prerequisites: ENT 200, ENT 210, ENT 213, ENT 221, ENT 320; 86 semester hours completed; signed major in Entrepreneurship.

ENT 444 Internship in Entrepreneurship/Not-For-Profit 4-10(Spec)
Course provides students with 400 or more hours of work experience. Employer evaluations required as well as a final written report. Prerequisites: ENT 200, ENT 210, ENT 213, ENT 221; 56 semester hours completed; signed major in Entrepreneurship.
ENT 492 Special Issues in Entrepreneurship (3Spec)
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)
Descriptions of courses approved for the University Program appear in italic type.

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. (Group IV-A)

ENV 197 Special Topics 1-6(Spec)
ENV 310 Environmental Issues Management 3(3-0)
Review of regulatory requirements and application of scientific studies to managing environmental risk. Case studies of risk management by the targeted community and regulatory agencies. Prerequisites: BIO 101 or BIO 105, ENV 101; CHM 120 or CHM 161 or both CHM 131 and CHM 132.

ENV 397 Special Topics 1-6(Spec)
ENV 400 Environmental Studies Colloquium 1(1-0)
Seminar format to integrate student internship experiences in the execution of problem-solving exercises relevant to environmental studies. Open to seniors who have completed their field internship. Prerequisites: 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.

Earth Science (ESC)
The complete description of Earth Science is found in the Department of Geography in the College of Science & Technology.

Descriptions of courses approved for the University Program appear in italic type.

ESC 105 Physical Geography 3(2-2) F, Sp
Study of the processes and distribution of weather, climate, landforms, soils and vegetation. Satisfies University Program laboratory requirement. (Group II-A)

ESC 201 Weather 4(4-0) F, Sp
Nature of atmospheric processes, weather, and climate — why and how they vary over the face of the earth. (Group II-A)

ESC 205 Oceanography 3(3-0) F, Sp
Introduction to the properties and movements of ocean waters; to marine life, the ocean floors, and the effects of the oceans on man. (Group II-A)

ESC 210 Landforms 3(2-2) F, Sp
Study ofgeomorphic processes including mass wasting, streams, and glaciation affecting the evolution and distribution of landforms in the physical landscape. Prerequisites: ESC 105 or GEL 101, or permission of instructor.

ESC 240 Meteorology 4(3-2) D
Normally the first course for students majoring in Earth Science concentration in Meteorology. Quantitative treatment of atmospheric processes. How and why rains, winds, and storms occur. Credit may not be earned in both ESC 201 and 240. Satisfies University Program Group II laboratory requirement. Prerequisite: two years of high school algebra or MTH 107. (Group II-B)

ESC 301 Climatology and Climatic Change 3(3-0) D
A study of major climate types, their controls, distribution patterns and significance. Examination of the causes and implications of climatic change. Prerequisites: one of the following: ESC 105, ESC 201 or ESC 240.

ESC 303 Synoptic Meteorology 3(2-2) F
A description of the structure and evolution of synoptic scale weather phenomena. Theory and use of thermodynamic diagrams. Techniques used in numerical weather prediction. Prerequisites: ESC 240 or permission of instructor.

ESC 304 Synoptic Meteorology II 3(2-2) Sp
A description of the structure and evolution of mesoscale and cumulus scale weather systems. Mesoscale forecasting techniques and manual and computer analysis of meteorological data. Prerequisites: ESC 303.

ESC 305 Oceanography: Economic and Environmental 3(3-0) F (Odd Years)
Study of the world ocean as a fragile marine environment being damaged by pollution and exploited for resources. Examination of ocean politics and marine research. Prerequisite: ESC 205 or permission of instructor.

ESC 310 Surface Hydrology 3(2-2) F
The course seals with stream waters and their alteration of the landscape. Stresses the interaction of water, land and human activity. Prerequisite: ESC 210 or permission of instructor.

ESC 320 Glacial Morphology and Landforms 3(3-0) D
Patterns and processes in the formation and distribution of selected glacial features. Prerequisite: ESC 210 or permission of instructor.

ESC 330 Biogeography 3(3-0) D
Atmospheric, terrestrial, and aquatic influences on the world distribution of plant and animal life. Prerequisite: ESC 105 or permission of instructor.

ESC 334 Soil Science 3(2-2) D
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: 6 hours of environmental science; CHM 120 or CHM 131.

ESC 340 Micrometeorology 3(3-0) D
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: ESC 105, ESC 201 or ESC 240, or permission of instructor. Concurrent enrollment in ESC 341.

ESC 341 Micrometeorology Laboratory 1(0-2) D
Field measurements of micrometeorological variables; examination of the impact of variations in the environment on the local climate. Prerequisite: concurrent enrollment in ESC 340.

ESC 346 Air Pollution 3(3-0) D
Nature and sources of gaseous and particulate pollutants, their origin, transport, dispersion, modification, and removal. Factors related to industrial site selection and control programs. Prerequisite: ESC 105, ESC 201 or ESC 240, or permission of instructor.

ESC 350 Environmental Catastrophes 3(3-0) F (Even Years)
Causes and effects of hurricanes, tornadoes, blizzards, earthquakes, volcanic eruptions, dam failures, tidal waves, freak seas, plagues, epidemics, and similar phenomena. Prerequisite: one or more environmental courses.

ESC 397 Independent Study 1-3(Spec) F, Sp
Exploration of topics in geography/environmental 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) F, Sp
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 403 Physical Meteorology 3(3-0) D
Fundamentals of radiative transfer in the atmosphere and its impact on global energy balance. Atmospheric thermodynamics and cloud microphysical properties. Prerequisites: ESC 303; MTH 133 or MTH 137; PHY 146; or permission of instructor.

ESC 503 Dynamic Meteorology I 3(3-0) F
A derivation and examination of the equations of motion, and first law of thermodynamics. Vorticity and its relationship to development of synoptic weather disturbances. Prerequisites: ESC 303; MTH 223; or permission of instructor.

ESC 504 Dynamic Meteorology II 3(3-0) Sp
Quasi-geostrophic theory and its application in weather prediction and diagnosis. Atmospheric waves, barotropic and baroclinic instability theory. Prerequisite: ESC 503.

ESC 546 Biomeeorology 2(2-0)
Description, measurement and analysis of plants, animals, and human interaction with the climate. Prerequisites: ESC 201; one of the following: ESC 330, ESC 340, or permission of instructor.

ESC 575 Special Studies in Earth Science 1-6(Spec) D
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) F, Sp
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) F, Sp
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.

Credit Limitation. Courses in the department that are subject to graduate credit limitations under the policy covering unspecified content or variable credit are: ESC 285, 298, 398, 498, 598, 599.
European Studies (EUR)

EUR 301 Europe 3(3-0)
Geographic characteristics of the continent, its regions, and economic and political systems since World War II. 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. (Group IV-B)

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. (Group IV-B)

EUR 496 European Studies Capstone Seminar 3(3-0)
A capstone elective 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)

The complete description of the Department of Finance is found in the College of Business Administration.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: FIN 332

FIN 201 Personal Finance 3(3-0) F, Sp
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 230 Real Estate Fundamentals 3(3-0) F, Sp
Basic principles and practices concerning real property, its ownership, usage, sale, purchase, rental, financing, are examined. Also considered is the real estate business enterprise and its environment.

FIN 257 Risk Management 3(3-0) D
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) D
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) F, Sp
Applied methods, with relevant theories, for a corporation to make decisions on investments, financing, and to evaluate performance in an integrative framework. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MGT 258; co-requisites: BUS 301, MGT/MKT 303, MGT 304.

FIN 303 Financial Administration 3(3-0) D
Financial administration of both profit and not-for-profit organizations including methods of asset procurement and raising capital. Prerequisite: ACC 201.

FIN 307 Fundamentals of Personal Financial Planning 3(3-0) F, Sp
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.

FIN 315 Principles of Investments 3(3-0) F, Sp, Su
Provides students with basic knowledge about different investments and sources of information to enable them to make wiser investments and prepare to build portfolios. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 317 Insurance Planning 3(3-0) F
This course introduces students to risk management and insurance decisions in personal financial planning, including health, disability, property, liability, and long-term care risks and insurance. Prerequisites: ACC 201, BLR 202, STA 282; admission to Professional Business Studies.

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 casework utilized as the teaching medium. Identical to ENT 320. Credit may not be earned in more than one of these courses. Prerequisites: ACC 210; signed major in Entrepreneurship.

FIN 332 Managerial Finance 3(3-0) D
Basic principles and techniques of the acquisition, management, and distribution of financial resources. Prerequisites: ACC 201, ACC 202; 56 semester hours completed.

FIN 347 Retirement Planning 3(3-0) F
This course covers issues that individuals face in retirement (money needs, life-styles, medical) and develops an understanding of both public and private retirement plans. Prerequisites: ACC 311, FIN 315, FIN 307; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 397 Special Topics 3-6(Spec) D
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.

FIN 416 Institutional Operations 3(3-0) D
In-depth examination 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 332, FIN 472; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 425 Options and Futures 3(3-0) F
Survey of markets of futures and options on financial securities and commodities. Valuation of futures/options and application for hedging risk. Prerequisites: FIN 315, FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 442 Intermediate Financial Management 3(3-0) F, Sp, Su
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; 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) Sp
Fundamentals of estate planning for personal use and professional training. Prerequisite: topics target applications in trust administration, accounting, and personal financial planning. Identical to BLR 445. Credit may not be earned in more than one of these courses. Prerequisites: FIN 347; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 446 Problems in Financial Institutions 3(3-0) D
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 a signed major or minor.

FIN 447 Cases in Personal Financial Planning 3(3-0) Sp
Capstone personal financial planning course in client-centered personal financial planning. This course applies principles of personal financial planning in case studies. Prerequisites: FIN 317, FIN 347, completion or current enrollment in FIN 445; 56 semester hours completed; admission to Professional Business Studies.

FIN 448 Fundamental Financial Analysis 3(3-0) F, Sp
Methods of fundamental financial analysis necessary for evaluating and forecasting firm financial and operating performance. Prerequisites: FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 455 Portfolio Management 3(3-0) Sp
Learn advanced methods of analyzing and valuing both debt and equity securities, as well as theories and techniques for combining assets into efficient portfolios. Prerequisites: FIN 315, FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 472 Money and Capital Markets 3(3-0) F, Sp
Survey of money and capital markets, strategies for growth, and timing of financial policy. Prerequisites: FIN 332, ECO 201, ECO 202; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 482 Working Capital Management 3(3-0) Sp
In-depth examination of working capital within the firm, emphasizing the short term aspects of financial management. Computer simulations, comprehensive cases, and term project required. Prerequisites: FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 490 Internship in Finance 1-3(Spec) D
Enrollment confined to a limited number of students working in business situations for educational experience. Prerequisites: permission of the department chairperson; admission to Professional Business Studies or listed on a signed major or minor.

FIN 491 Independent Studies 1-6(Spec) D
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 a signed major or minor.
FIN 492 Practicum in Small Business 3(Spec) D

Provides the student an opportunity to analyze the accounting, finance, marketing, management, and production systems of an ongoing small business. Identical to ACC/MGT/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.

FIN 497 Special Topics 1-6(Spec) D

Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the students transcripts. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

FIN 498 Seminar In Financial Theory 3(3-0) D

Financial theories, such as utility and arbitrage pricing will be studied. The efficacy of the theory to the application of finance in the world will be discussed. Prerequisites: FIN 442; permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 499 Advanced Financial Management 3(3-0) Sp

The capstone course in finance. Broad integrative topics within financial management are examined through cases, exams, and a written project. Required of finance majors. Prerequisites: FIN 332, FIN 442, FIN 448, FIN 472; 88 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor.

FIN 573 International Finance 3(3-0) F, Sp

Role of financial manager in international corporations. Environmental problems of foreign exchange. Techniques for making investment decisions, financing marketing operations, long-term capital structure and flow of funds. Prerequisites: FIN 332; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

FIN 597 Special Topics 1-3(Spec) D

Selected topics of interest to students which are not formally included in existing courses. Specific topic will be listed on student's transcript. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor, or permission of MBA director.

For 600 and 700 level courses descriptions consult the current Graduate Bulletin.

MBA 510 Financial Management and Analysis 2(2-0) D

MBA 669 Financial Decision-Making 2(2-0) D

FIN 671 Financial Derivatives 3(3-0)

FIN 674 Short Term Financial Management 3(3-0) D

FIN 675 Managerial Economics 3(3-0) D

FIN 676 Investment Strategy 3(3-0) D

FIN 678 Long Term Financial Policies 3(3-0) D

FIN 791 Independent Studies 1-6(Spec) D

FIN 797 Special Topics 3-6(Spec) D

FIN 798 Thesis 1-6(Spec) D

Credit Limitation. Courses in the department that are subject to graduate credit limiti-ation under the policy covering unspecified content or variable credit are: FIN 791, 797.

Foreign Language (FLN)

The complete description of Foreign Languages is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.

FLN 197 Special Topics 1-8(Spec)

For students beginning the study of a language or topic not offered in the regular program of this department.

FLN 297 Special Topics 1-8(Spec)

For students continuing the study of a language or topic not offered in the regular program of this department.

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 400 Comparative Linguistics 3(3-0)

Linguistic principles and their application to learning or teaching a second language. Prerequisites: two 300-level French courses.

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.

Credit Limitation. FLN 597 is subject to graduate credit under the policy covering unspecified content or variable credit.

French (FRN)

The complete description of French is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved for the University Program appear in italic type.

Courses on the 100 and 200 level are supplemented by laboratory work.

FRN 101 Elementary French I 4(4-0) F, Sp

Designed for students who have had no French. Basic language skills. Introduction to the culture of the French-speaking countries. Students who have had previous preparation in French are required to take a placement exam. Students who have had more than two years of high school French may not enroll without permission of instructor. (Group IV-B)

FRN 102 Elementary French II 4(4-0) F, Sp

Basic language skills. Continuation of FRN 101. Prerequisite: FRN 101 or equivalent. (Group IV-B)

FRN 110 Study Abroad 1-8(Spec)

Intended for beginning students studying abroad. Prerequisite: permission of instructor.

FRN 111 French 101 Drill 1(0-4)

Ooral, small group drill section to be taken simultaneously with FRN 101 sections using the Dartmouth Intensive Language Model.

FRN 112 French 102 Drill 1(0-4)

Ooral, small group drill section to be taken simultaneously with FRN 102 sections using the Dartmouth Intensive Language Model.

FRN 201 Intermediate French I 4(4-0) F, Sp

Review of grammar and further development of all language skills. Prerequisite: FRN 102 or equivalent. (Group IV-B)

FRN 202 Intermediate French II 4(4-0) F, Sp

Continuation of FRN 201 with increased emphasis on reading and discussion. Prerequisite: FRN 201 or equivalent. (Group IV-B)

FRN 210/Study Abroad 1-18(Spec)

Intended for intermediate students studying abroad. Prerequisites: FRN 102 or equivalent; permission of instructor.

FRN 310 Study Abroad 1-18(Spec)

Intended for advanced students studying abroad. Prerequisites: FRN 202; permission of instructor.

FRN 315 Advanced French I 3(3-0)

Review and refinement of French grammar. Special emphasis on understanding contemporary spoken and written French. Not open to students with credit in FRN 311. Prerequisites: FRN 202 or equivalent.

FRN 316 Advanced French II 3(3-0)

Review and refinement of French grammar. Special emphasis on reading and writing about literary works in French. Not open to students with credit in FRN 332. Prerequisite: FRN 202 or equivalent.

FRN 320 French Civilization 3(3-0) F

A study of various aspects of French culture from its beginnings through the nineteenth century. Prerequisite: FRN 202 or equivalent.

FRN 321 France Today 3(3-0) Sp

Various aspects of the political, social, economic, intellectual, artistic, and literary life of contemporary France. Prerequisite: FRN 202 or equivalent.

FRN 330 Survey of French Literature (Beginning to 1800) 3(3-0) F

Develops acquaintance with the literature of France from the Middle Ages to 1800 through selections from representative authors. Prerequisite: FRN 202 or equivalent.

FRN 331 Survey of French Literature (1800 to Present) 3(3-0) Sp

General acquaintance with the literature of France from 1800 to the present. Selections from representative authors. Prerequisite: FRN 202 or equivalent.

FRN 333 Survey of Francophone Literature 3(3-0)

Prose and poetry selections by Francophone writers, especially African and Caribbean. Prerequisite: FRN 202 or equivalent.

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. Prerequisite: FRN 202 or equivalent.

FRN 370 French Pronunciation and Diction 3(3-0)

Study of phonetics and practice of intonation and pronunciation patterns. Prerequisite: FRN 202 or equivalent.

FRN 403 French Literature of the Middle Ages and Renaissance 3(3-0)

Literary works chosen for detailed study are discussed in class. Prerequisites: 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. Prerequisites: two 300-level French courses.
FRN 406 French Literature of the Eighteenth Century 3(3-0)  
Selected literary works are discussed in class. Prerequisites: 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. Prerequisites: 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. Prerequisites: two 300-level French courses.

FRN 410 Study Abroad 1-12(Spec)  
Intended for advanced students studying abroad. Prerequisites: 6 hours at the 300 level or equivalent; 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: Field Experience 1-2(Spec)  
Laboratory experience in elementary and/or secondary teaching situations. CR/NC only. Corequisite: FRN 411.

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. Prerequisites: two 300-level French courses.

FRN 421 Foreign Language in Elementary Schools 1(1-D)  
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: FRN 411.

FRN 430 French Culture Web Pages 1(1-D)  
In the course, students explore a theme in French or Francophone culture while learning about the Web and creating Web pages. Prerequisites: two 300-level French courses; senior standing.

FRN 510 Study Abroad 1-12(Spec)  
Intended for advanced undergraduate and graduate students studying abroad. Prerequisites: 6 hours at the 400 level or equivalent; permission of instructor.

FRN 531 Practicum in French Stylistics 3(3-0)  
Study and analysis of composition and style. Prerequisites: FRN 315, FRN 316; 6 additional FRN credit hours in courses 300 or above; or permission of instructor.

FRN 591 Studies in French Culture 1-6(Spec)  
Topics of immediate interest in French literature and civilization. Credit hours vary, depending on the subject chosen. Prerequisites: FRN 202 or equivalent; permission of instructor.

FRN 597/Independent Study 1-6(Spec) F, Sp  
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: at least 6 FRN credit hours at the 300 level or above; permission of the instructor and department chairperson.

Credit Limitation. Courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: FRN 591, 597.

**First Year Experience (FYE)**

**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 to the First-Year Experience 3(2-2)**  
This course provides a theoretical foundation, practical knowledge and skill development for the role of First-Year Experience (FYE 101) Mentor. Prerequisite: requires concurrent placement as a FYE 101 Mentor.

**Geology (GEL)**

The complete description of the Department of Geology is found in the College of Science & Technology. Descriptions of courses approved for the University Program appear in italic type.

**GEL 100 Introduction to Earth Systems 3(2-2) F, Sp**  
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. (Group IIA)

**GEL 101 Physical Geology 3(3-0) F, Sp**  
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. (Group II-A)

**GEL 102 Physical Geology Laboratory 1(0-2) F, Sp**  
Laboratory study of rocks, maps, and geologic processes. Should be taken concurrently with GEL 101, GEL 105, or GEL 301. Satisfies UP Group II laboratory requirement. Prerequisites or Co-requisites: one of the following: GEL 101, GEL 105, GEL 203, or GEL 301. Credit may not be earned in GEL 102 AND GEL 100 OR GEL 130. (Group II-A)

**GEL 105 Environmental Geology 3(3-0) F, Sp**  
A survey of the socially important geological topics that affect people and their environment. These include energy, pollution, and geologic hazards. Credit may not be earned in both GEL 105 and GEL 100, GEL 101, or GEL 130. (Group II-A)

**GEL 130 Earth Processes 3(2-2)**  
An introduction to geologic processes from a quantitative perspective. Students will investigate rates and scales of processes including earthquakes, erosion, mountain building, and resource formation. Satisfies 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. (Group II-B)

**GEL 201 Earth History 3(2-2) F, Sp**  
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: one of: GEL 100, GEL 101, GEL 105 or GEL 130.

**GEL 203 Geology of the National Parks 3(3-0) D**  
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 230 Prehistoric Life 3(3-0) F, Sp**  
An introduction to the three-billion-year history of life on earth. Topics include the origin of life, mass extinctions, history of dinosaurs, and evolution of mammals. (Group II-A)

**GEL 275 Special Problems in Geology 1-6(Spec) D**  
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) F, Sp, Su**  
Qualified self-directed students may explore topics of special interest with faculty guidance. More than 3 credits permitted only rarely. Prerequisite: GEL 101 or permission of instructor.

**GEL 301 Geology and Michigan 3(3-0) D**  
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. GEL 102 cross-registration recommended. (Group II-A)

**GEL 303 Oceanography: Marine Geology 3(3-0) D**  
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 ESC 205.

**GEL 304 Energy Resources 3(3-0) D**  
Various forms of energy in the universe. Sources of energy-producing materials with emphasis on conservation and depletion when consumption of energy is accelerating. Prerequisite: junior standing.

**GEL 310 Introductory Mineralogy 4(3-3) F**  
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; CHM 131 or CHM 161 as prerequisite or corequisite.

**GEL 320 Earth Materials 3(2-3) Sp**  
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 GEL 105, and GEL 102; or GEL 100; or GEL 130.

**GEL 321 Petrology 4(3-3) Sp**  
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. Prerequisite: GEL 290, GEL 310; CHM 132 or CHM 161 as prerequisite or corequisite.

**GEL 331 Field Petrology 2(Spec) Su**  
Introduction to techniques of structural analyses and geochemical 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) Sp
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 or MTH 136.

GEL 372 Introduction to Geophysics 3(2-3) F
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 or MTH 136.

GEL 380 Hydrogeology 3(2-3) F, Sp
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) D
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) Sp
Application of chemical principles to environmental-geochemical 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 Geochemistry Laboratory 1(0-3) D
Fundamentals of research and problem solving utilizing geochemical analytical methods. Emphasizes project planning, sampling techniques, data collection and interpretation. Prerequisites: GEL 402 or GEL 460 as prerequisite or corequisite.

GEL 406 Senior Thesis 3(Spec) F, Sp, Su
Senior level research project approved by the geology faculty. Results of the research project must be presented in a written thesis and oral report. Prerequisite: senior standing.

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; ESC 210 and STA 282 recommended.

GEL 430 Invertebrate Paleontology 3(2-3) F
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) F
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; GEL 320 or GEL 321.

GEL 450 Field Geology 5(Spec) Su
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. Prerequisite: GEL 320 or GEL 321, or permission of instructor.

GEL 460 Geochemistry 3(3-0) D
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 or equivalent. GEL 320 or GEL 321 as prerequisite or corequisite.

GEL 515 Advanced Mineralogical Techniques 3(2-3) D
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) D
Genesis of metamorphic and non-clastic sedimentary rocks including thin-section investigation of examples of these rocks. Prerequisite: GEL 315.

GEL 522 Petrology I 3(2-3) D
Genesis of igneous and clastic sedimentary rocks including thin-section investigation of examples of these rocks. Prerequisites: GEL 321, GEL 315, with a grade of C+ or better, or permission of instructor.

GEL 525 Sedimentology 4(3-2) D
Study of invertebrate fossils (shells and biochemical products), stratigraphic sections, and the sedimentary environments as they are related. Prerequisites: GEL 320 or permission of instructor.

GEL 530 Practicum: Paleontology and Stratigraphy 6(Spec) D
Study of invertebrate fossils (shells and biochemical products), stratigraphic sections, and the sedimentary environments as they are related. Prerequisite: GEL 201.

GEL 531 Micropaleontology 3(0-6) D
The classification, stratigraphy, paleoecology, and laboratory preparation of the major groups of microfossils. These include foraminifera, ostracods, conodonts, radiolarians, diatoms, cocco-thallophoris, dinoflagellates, and acritarchs. Prerequisite: GEL 430 or permission of instructor.

GEL 545 Biostratigraphy 3(2-2) D
The principles and concepts of graphic and quantitative biostratigraphic correlation. Paleoecology and how it affects and relates to biostratigraphy. Prerequisites: GEL 430, GEL 440, or equivalent.

GEL 572 Advanced Geophysics 4(2-6) D
Detailed aspects of theory, procedures, and analysis of seismology, gravity, magnetics, and resistivity as applied to investigations of specific structural and tectonic problems. Prerequisites: GEL 370; GEL 372; MTH 133 or MTH 137; or permission of instructor.

GEL 575 Special Studies in Geology 1-6(Spec) D
Announced topics of special interest to mature students who wish to explore a problem in depth with a staff member who wishes to direct the group. Prerequisite: permission of instructor.

GEL 597 Independent Study 1-6(Spec)
Qualified self-directed students may explore topics of special interest with faculty guidance. More than 3 credits permitted only rarely. Prerequisites: department chairperson and instructor approval. For 600 and 700 level course descriptions consult the current Graduate Bulletin.

GEL 619 Continuing Registration for Final Research Project 1(1-0)

GEL 650 Geologic Materials for Science Teachers 3(3-0) D

GEL 660 Organic Geochemistry 3(3-0)

GEL 665 Inorganic Geochemistry 3(3-0)

GEL 670 Advanced Structural Geology 3(2-2)

GEL 675 Special Studies in Geology 1-6(Spec) D

GEL 690 Earth Evolution 3(2-2)

GEL 697 Independent Study 1-6(Spec) D

GEL 730 Seminar in Geology 1-4(Spec)

GEL 798 Thesis 1-6(Spec)

Credit Limitation. Courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: GEL 575, 597, 650, 675, 697, 730.

Geography (GEO)

The complete description of the Department of Geography is found in the College of Science & Technology. Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include GEO 121, 373.

GEO 120 Environmental Geography 3(3-0) F, Sp
An introduction to the human use of the earth's surface and inquiry into selected environmental problems resulting from use of the physical landscape. (Group IV-A)

GEO 121 Cultures of the World 3(3-0) F, Sp
Population, political, economic, and other cultural phenomena and their world distribution patterns are presented upon a nontechnical background of physical geography. (Group III-B)

GEO 200 Contemporary World Problems 3(3-0) D
An introduction to a global perspective, the examination of geographic factors affecting selected world problems, and the evaluation of the geographic quality of media coverage.

GEO 203 Introduction to Geographic Information Science 3(2-2) F, Sp
Fundamentals of geographic information science - including map interpretation and spatial data gathering, measurement, classification, analysis and display. Current computer mapping technologies are used in laboratory.

GEO 303 Computer Cartography and GIS 3(2-2) F, Sp
The basic elements of digital mapping and geographic information systems (GIS). Thematic and surface mapping. Capture, storage, manipulation, output of data within a GIS framework. Prerequisites: GEO 203 or permission of instructor.

GEO 305 Remote Sensing of the Environment 3(2-2) F, Sp
Characteristics and principles of sensing systems. Interpretation of photographic and electronic imagery of earth environment from airborne and space platforms. Prerequisite: 6 hours of geography or other environmental science, or permission of instructor.

GEO 315 Food and Agriculture 3(3-0) D
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. Prerequisite: one of the following: GEO 120, GEO 121, ESC 101.
GEO 317 Economic Geography 3(3-0) D
Principles and theories of economic geography, the global interrelationships of regional and local economic activities, and the effect of technology on economic structures. (Group III-B)

GEO 320 Population Geography 3(3-0) F
Spatial patterns of fertility, mortality, and migration, and the processes underlying those patterns. Population growth, distribution, problems and policies. Prerequisites: one of the following: junior standing, GEO 120, GEO 121, or permission of the instructor.

GEO 325 Geography of Growth and Change 3(3-0) D
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) D
Influence of physical, economic, political, and social factors on the total resource system.

GEO 340 Urban Geography 3(3-0) Sp
The rise of cities and urbanization. Human use of urban space. The city as environment.

GEO 345 Political Geography 3(3-0) D
Areal characteristics and territorial problems of states, including internal regional relations, border disputes, and colonial areas. Selected world problems. Prerequisite: background in history desirable.

GEO 346 Geography of the Developing World 3(3-0) D
A geographic analysis of the developing world focusing on processes of environmental, demographic, and socioeconomic change, particularly since World War II. Prerequisites: junior standing or permission of the instructor.

GEO 350 Anglo-America 3(3-0) D
Physical environment, resources, economic activities, population patterns, and interregional relationships of United States and Canada.

GEO 365 Europe 3(3-0)
Geographic characteristics of the continent, its regions, and economic and political systems since WWII. National characteristics of culture, human/land relationships and international involvements. Identical to EUR 301. Credit may not be earned in more than one of these courses.

GEO 373 Latin America 3(3-0) F, Sp
Geographic characteristics of Latin America from colonization to present. Regions are interpreted by analysis of geographical elements and their interrelationships. (Group IV-B)

GEO 375 Special Topics in Geography 1-9(Spec) D
Various geography topics offered at an advanced undergraduate level. Prerequisite: permission of the instructor.

GEO 395 Michigan 3(3-0) D
Physical environment, resources, settlement, population, and economic activities studied sequentially and regionally. Prerequisite: junior standing or permission of instructor.

GEO 397 Independent Study 1-3(Spec) F, Sp
Study of topics in geography agreed upon by student and instructor. May be taken only upon arrangement prior to registration.

GEO 400 Geographic Education 3(2-2) F, Sp
Study of geography in the K-12 curriculum including relevant teaching methods, national and state content standards and multicultural education. Prerequisites: junior standing; 12 hours of geography or social sciences.

GEO 404 Global Positioning System 1(1-0)
Introduction to the Global Positioning System, system operation, data capture, mission planning and data import to Geographic Information Systems (GIS). Prerequisites: GEO 303 or permission of instructor.

GEO 405 CAD Mapping for GIS 3(2-2)
Concepts and practice of 2-dimensional Computer-Aided Drafting systems (CAD) from a GIS/Mapping perspective. Approach will include photogrammetric techniques and land surveying data. Prerequisites: GEO 203, GEO 303.

GEO 500 Advanced Cartography 3(2-2)
Advanced techniques for cartographic exploration and communication. Cartographic representation of multivariate data, interactive and animated cartography, and Web-based cartographic communication. Prerequisite: GEO 303 or permission of instructor.

GEO 503 Geographic Information Systems 3(2-2)
The techniques of computer-assisted analysis and display of spatially ordered geographic data. Students will use vector and raster GIS. Prerequisites: GEO 303, GEO 305.

GEO 506 Applications in Remote Sensing of the Environment 3(2-2) D
The study of imagery to reveal characteristics of natural and cultural environment. Photographic, thermal infrared, and sidar imagery to be considered, emphasis on aerial photography. Prerequisite: GEO 305 or permission of instructor.

GEO 508 Digital Remote Sensing 3(2-2) D
Computer processing and analysis of digital remote sensing data. Emphasis on multispectral image processing and analysis using standard microcomputer image processing programs. Prerequisites: GEO 303, GEO 305.

GEO 511 International Geographic Experience 3-6(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 courses or permission of instructor.

GEO 512 Quantitative Methods for Spatial Analysis 3(2-2)
Statistical techniques for solving spatial problems. Descriptive and inferential spatial statistics. Point pattern analysis. Prerequisites: GEO 303; STA 382 or equivalent; or permission of instructor.

GEO 515 Geography of the Great Lakes Region 3(3-0) D
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, or permission of instructor.

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) D
Study of land use planning history, concepts and techniques. Analysis of federal, state, and local government roles in planning. Examination of specific land use programs. Prerequisites: GEO 303; 6 additional semester hours in either or both GEO or PSC; or permission of instructor.

GEO 531 Integrated Land Use Planning 3(3-0)
The integration of land use planning and environmental management concepts and techniques with broader regional economic and environmental planning approaches in the US and abroad. Prerequisites: GEO 530 or permission of instructor.

GEO 550 Geography for Teachers 3(3-0) F, Sp
For teachers who want to upgrade their knowledge of geography, experiment with new teaching techniques, and learn how to make professional in-service presentations to teachers. Graduate credit only. Prerequisites: teacher certification or permission of instructor.

GEO 553 GIS Operations and Practices 3(3-0)
Practices and procedures utilized by professionals in the implementation and maintenance of large-scale GIS operations. Prerequisites: GEO 503 or graduate status in the MS GISci program.

GEO 575 Special Studies in Geography 1-6(Spec) D
Various special topics offered at an advanced undergraduate and graduate level. Prerequisites: permission of instructor.

GEO 591 Internship 1-12(Spec) F, Sp
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) D
Exploration of topics in geography agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisites: permission of the instructor and department chairperson; at least 6 hours on the 400 level. For 600 and 700 level course descriptions consult the current Graduate Bulletin.

GEO 600 Dynamic Mapping and Visualization 3(2-2)
GEO 603 GIS Design and Programming 3(2-2)
GEO 606 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)
The complete description of German is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved for the University Program appear in italic type.

Courses on the 100 and 200 level are supplemented by laboratory work.

GER 101 Elementary German I: Language and Culture 4(4-0)
Designed for students who have had no German. Basic language skills. Introduction to the culture of the German-speaking countries. Students who have had previous preparation in German are required to take a placement exam. (Group IV-B)
GER 102 Elementary German II: Language and Culture 4(4-0) Sp
Continuation of GER 101. Basic language skills and introduction to the culture of the German-speaking countries. Prerequisite: GER 101 or equivalent. (Group IV-B)

GER 107 - Conversational German 1(1-0)
Designed for students who have had no German and wish to acquire some basic conversational skills. Emphasis on speaking and understanding, responding and vocabulary acquisition.

GER 110 German Language Study Abroad 1-8(Spec)
Intended for beginning students studying abroad. Prerequisite: permission of instructor.

GER 111 Elementary German Drill I 1(0-4)
Oral, small group drill section for students enrolled in German 101 using the Dartmouth Intensive Language Model. Simultaneous enrollment in GER 101 required. CR/NC only.

GER 112 Elementary German Drill II 1(0-4)
Oral, small group drill section for students enrolled in German 102 using the Dartmouth Intensive Language Model. Simultaneous enrollment in GER 102 required. CR/NC only.

GER 201 Intermediate German I 4(4-0) F
Further development of all language skills, a review of grammar, and exploration of the culture of present day Germany. Prerequisite: GER 102 or equivalent. (Group IV-B)

GER 202 Intermediate German II 4(4-0) Sp
Continuation of GER 201. Prerequisite: GER 201 or equivalent. (Group IV-B)

GER 210 German Language Study Abroad 1-8(Spec)
Intended for intermediate students studying abroad. Prerequisites: GER 102 or permission of instructor.

GER 310 German Language Study Abroad 1-12(Spec)
Intended for advanced students studying abroad. Prerequisites: GER 202 or permission of instructor.

GER 311 Advanced German I 3(3-0) F
Study of standard High German using current conversational and literary sources. Designed to improve oral and written language skills. Required for majors and minors. Prerequisite: GER 202 or equivalent.

GER 312 Advanced German II 3(3-0) Sp
Continuation of GER 311. Required for majors and minors. Prerequisite: GER 311 or equivalent.

GER 325 Modern German Literature in Translation 3(3-0)
Interpretation and discussion of representative works by 20th century writers with a focus on their views of contemporary society. Does not count on German major or minor.

GER 335 The Culture of the German Economy 3(3-0)
Development of proficiency through readings, discussions, and assignments dealing with the culture of the German economic system and Germany in world trade. Taught in German. Prerequisite: GER 202 or equivalent.

GER 336 The Culture of German Business 3(3-0)
Readings, discussions, and assignments based on materials dealing with key areas of the German business culture such as management and corporate hierarchies. Taught in German. Prerequisite: GER 202 or equivalent.

GER 341 German Cultural History I 3(3-0)
The civilization of Germany and German-speaking areas with emphasis on the social, political, artistic, philosophical, and literary aspects. Prerequisite: GER 202.

GER 342 German Cultural History II 3(3-0) Continuation of GER 341. Prerequisite: GER 202.

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. Prerequisite: GER 202.

GER 344 Survey of German Literature II 3(3-0) Continuation of GER 343. Survey of the chief literary periods from the mid-19th century through the present, reading representative authors and works within their social contexts. Prerequisite: 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. Prerequisite: GER 202 or equivalent.

GER 370 Advanced Studies in German 1-4(Spec)
Special topics may include language, literature and/or culture. Prerequisites: GER 202; permission of instructor.

GER 397 Directed Readings 1-3(Spec)
Offers insight into certain aspects of German literature and civilization, not normally included in regular courses. Prerequisites: permission of instructor; 6 hours of 300-level courses.

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. Prerequisite: GER 311; permission of instructor.

GER 403 German Literature to 1776 3(3-0)
The Middle Ages, Renaissance, Baroque, and the Enlightenment. Modern German translations from Old High German and Middle High German periods. Prerequisite: 6 hours of 300-level courses.

GER 405 German Classicism 3(3-0)
The classical age culminating in the works of Goethe and Schiller. The authors’ lives, thoughts, and impact on their contemporaries. Prerequisite: 6 hours of 300-level courses.

GER 407 German Literature of the Nineteenth Century 3(3-0)
Romanticism, Poetic Realism, and Naturalism through representative authors. Prerequisite: at least 6 hours of 300-level courses.

GER 409 German Literature of the Twentieth Century 3(3-0)
Impressionism, Expressionism, Neo-realism, and other current trends. Prerequisite: at least 6 hours of 300-level courses.

GER 410 Study Abroad 1-24(Spec)
Intended for students on the exchange program with the Federation of German-American Clubs. Prerequisites: 6 hours at the 300 level or equivalent; permission of the instructor.

GER 411 Practicum in Teaching German 3(2-1)
Techniques for teaching and testing foreign language skills, planning lessons and units, and selecting texts, cultural materials, and teaching aids. Practical experience through mini-teaching situations. Prerequisites: two 300-level courses; passing the competency test; departmental permission.

GER 412 Practicum: Field Experience 1-2(Spec)
Laboratory experience in elementary and/or secondary teaching situations. CR/NC only. Prerequisite: to be taken concurrently with GER 411.

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 470 Advanced Studies in German 1-4(Spec)
To develop advanced proficiency in German. Special topics may include language, literature, and/or culture. Prerequisites: 6 hours at the 300 level; permission of instructor.

GER 490 Advanced German for Business 3(3-0)
Expands on GER 335 and features new topics such as management, finance, marketing, etc. 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 practicum 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 or equivalent.

GER 597 Independent Study 1-6(Spec)
The in-depth study of a topic under the direction of a faculty member who together with a student designs the format of the study. Prerequisites: permission of instructor and department chairperson; at least 6 hours on the 400 level.

Credit Limitation. GER 597 is subject to graduate credit limitation under the policy covering unspecified content or variable credit.

Greek (GRK)
The complete description of Greek is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.

GRK 101 Classical Greek 4(4-0)
Grammar of written Greek prose of the Attic period, reading Greek text aloud, translation and composition.

GRK 102 Classical Greek 4(4-0)
Continuation of GRK 101. Prerequisite: GRK 101; or permission of instructor.

GRK 201 Classical Greek 4(4-0)
Reading and translation of Greek prose, including Xenophon and the Greek Bible. Prerequisite: GRK 102.

GRK 202 Classical Greek 4(4-0)
Continued guidance of the student in reading Greek prose and in the analysis of connected texts. Prerequisite: GRK 201.
Gerontology (GRN)

GRN 247 Introduction to Gerontology 3(3-0) F, Sp
An interdisciplinary approach to the study of aging with a focus on the normal changes that occur as one ages physically, mentally, and socially. (Group IV-A)

GRN 248 Service Learning in Gerontology 3(Spec)
A structured and supervised service learning experience in professional service settings specifically addressing the needs of older adults. Prerequisites: concurrent registration in or completion of GRN 247 or PSY 325.

GRN 430 Women and Aging 3(3-0)
Multiple theoretical perspectives examine the status of older women, individual psychological, social and physical development, roles in family and society, and policy implications. Identical to WST 430. Credit may not be earned in more than one of these courses. Prerequisite: GRN 247 or PSY 325 or HSC 390.

GRN 355 Dementia Care: Diagnosis, Treatment and Prevention 3(3-0)
This course provides a foundation in normal aging and then addresses the individual, family and institutional challenges of diagnosis, treatment and prevention of dementing illnesses. Prerequisites: GRN 247 or PSY 325 or HPR 390 or permission of instructor.

GRN 575 Geriatric Nutrition 3(3-0) F
A detailed description of nutrition for the elderly, including special nutritional considerations, food selection patterns, nutritional status and strategies for disease prevention. Identical to HEV 575. Credit may not be earned in more than one of these courses. Prerequisites: HEV 370.

GRN 590 Independent Study 1-4(Spec) F, Sp
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) F, Sp
Selected topics/problems of interest that are not normally included in existing course offerings. May include conferences, workshops, and seminars sponsored by the Interdisciplinary Gerontology Program. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

GRN 631 Gerontology: Theory and Practice 3(3-0)

GRN 632 Public Policy and Aging 3(3-0)

Human Environmental Studies (HEV)

The complete description of the Human Environmental Studies Department is found in the College of Education & Human Services.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: HEV 213, 370, 661, 662, 670, 672, 673, 677, 678.

Courses are listed according to the three areas of the department: Design and Merchandising; Foods and Nutrition; Human Development and Family Studies.

Design and Merchandising

APPAREL MERCHANDISING AND DESIGN COURSES:

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

HEV 141 Apparel Design: Analysis 3(3-0) F, Sp
The apparel design process. Emphasis on the aesthetic component, including application of art elements/principles to visual design. Fashion as a process and product.

HEV 155 Introduction to Textiles 3(2-2) F, Sp
Introductory course in textiles. Study of fiber, yarn, and fabric properties.

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

HEV 241 Apparel Design: Illustration 3(1-3) F, Sp
Introduction to graphic skills involved in drawing the fashion figure, garment sketching, and rendering of textures. Emphasis on portfolio development for the apparel designer. Prerequisites: HEV 140, HEV 141, or permission of instructor.

HEV 246 Computer-Aided Design for Apparel 3(2-2) F, Sp
Development and production of textile and apparel designs and patterns using selected computer-software packages. Implications for use in the apparel industry. Prerequisites: HEV 140 or HEV 250; HEV 141.

HEV 250 - Apparel Evaluation 3(2-2) Sp
Evaluative techniques for analyzing apparel quality leading to improved product knowledge. Factors that determine the cost, price, quality, performance and value of garments. Prerequisite: HEV 155.

HEV 252 Dress and Culture 3(3-0) F, Sp
Appearance and dress as a reflection of social, psychological and cultural environments of humans; examination of dress as an aspect of culture and individual expression. (Group IV-A)

HEV 256 Fashion Merchandising 3(3-0) F
Introduction to the merchandising function emphasizing fashion as a process and product: fashion cycle, fashion adoption, production and distribution of fashion goods and services. Prerequisite or Corequisite: HEV 141.

HEV 330 Preprofessional Seminar in Apparel Merchandising and Design 2(2-0) Sp
Seminar prior to a supervised internship in an apparel merchandising/design firm or related business. Prerequisites: HEV 140 or HEV 250; HEV 155, HEV 256; Prerequisites or corequisites: for Apparel Design Concentration (3 hours in ART 115, ART 135 or ART 231); for Apparel Merchandising Concentration (3 hours in BLR 202, BLR 325, MGT 320, MGT 357, or MGT 365).

HEV 335 Internship in Apparel Merchandising and Design 4(Spec) Su
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: HEV 330, permission of instructor.

HEV 345 Apparel Design Methods 3(2-2) F, Sp
Introduction to flat pattern as a method of apparel design. Effects of design method, fabric, construction, and creativity on design product. Prerequisites: HEV 240, HEV 241, or permission of instructor.

HEV 346 Advanced CAD for Apparel 3(2-2) F, Sp
Apparel design and production techniques using advanced computer systems and CAD software. Portfolio development and CAD related career exploration. Prerequisites: HEV 140 or HEV 250; HEV 141, HEV 246.

HEV 350 Professional Study Tour 2-3(Spec) D, Su
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.

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

HEV 356 Visual Merchandising 3(2-2) Sp
Principles and practices of effective merchandise presentation and display including techniques, resources and evaluation. Prerequisites: HEV 246, HEV 256.

HEV 357 Fashion Production and Promotion 3(2-2)
Experiential course involving all aspects of fashion production. Event design, organization, coordination and promotion, culminating in the production of one or more multimedia fashion events. Prerequisites: major or minor in Apparel Merchandising and Design; completion of 56 semester hours; or permission of instructor.

HEV 446 Experimental CAD for Apparel 3(2-2) F
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. Prerequisite: HEV 346 with a grade of C or better.

HEV 447 Functional Apparel Design 3(2-2) Sp
A systematic approach to apparel design integrating knowledge of the needs and functions of the wearer, the structural properties of textiles and apparel design. Prerequisites: HEV 140, HEV 141, HEV 240, HEV 241, HEV 355, HEV 345, or permission of instructor.

HEV 450 Textiles and Apparel in a Global Economy 3(3-0) F
Examination of issues related to the globalization of the textile/apparel industry, theories of international development and expansion, and the distribution of fashion goods. Prerequisites: 56 semester hours with at least 12 hours in apparel merchandising and design courses including HEV 335; or permission of instructor.

HEV 456 Fashion Buying 3(2-2) F
Fundamentals of the fashion buying function: practices, procedures, and techniques including merchandising calculations and computer applications. Prerequisites: HEV 335, BIS/CPS 106.

HEV 457 Portfolio Techniques 3(3-0) F, Sp
A capstone course to develop a professional portfolio and an e-portfolio integrating knowledge across the curriculum, experiential learning, technical presentation and communication skills. Prerequisites: HEV 335; senior standing; or permission of instructor.

INTERIOR DESIGN COURSES:

HEV 131 Interior Design Studio I: Introduction 3(1-4) F, Sp
Application of basic design elements and principles and the use of design concepts, materials, and model building techniques applicable to commercial and residential interiors. Prerequisite or Corequisite: HEV 138
HEV 138 Visual Communication for Interior Design 3(1-4) F, Sp
Visual communication of design concepts through rendering and presentation techniques; used to express development and the final stages of design process. Prerequisite: None.

HEV 139 Interior Design Drafting 3(2-2) F, Sp
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. Prerequisite: HEV 131; Prerequisite or Corequisite: HEV 138.

HEV 238 Design History and precedent 3(3-0) F
Cross-cultural survey of environmental design including primal, vernacular, and high style forms with correlating historical context.

HEV 328 Design History and Criticism 3(3-0) Sp
Study of Western design forms (17th century through present) with correlating historical, cultural, and theoretical developments. Criticism of current design using diverse criteria. Prerequisites: HEV 131, HEV 238.

HEV 332 Human Shelter and Environment 3(3-0) F, Sp
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. (Group IV-A)

HEV 334 Computer-Aided Design for Interiors 3(2-2) Sp
Fundamental concepts and applications of graphic software programs. Current and potential applications of digital computers and CAD software in design. Prerequisites: HEV 131, HEV 138, HEV 139; Prerequisite/Corequisite: HEV 337.

HEV 336 Materials and Components of Interior Design 3(3-0) F
Consideration of the materials, equipment and systems utilized in the design and construction of interior environments.

HEV 337 Interior Design Studio II: Residential 3(1-4) F, Sp
Application of basic design process to residential interiors: space planning, furnishings, finishes, color, and lighting; according to the socioeconomic, physical, and psychological needs of users. Prerequisites: HEV 139, HEV 332, HEV 336; Prerequisite or Corequisite: HEV 328.

HEV 338 Internship Preparation for Interior Design 1(Spec) Sp
Development of skills to prepare students for obtaining an internship in an interior design firm or related field. Should be taken semester prior to HEV 438. Prerequisite: HEV 337.

HEV 339 Interior Design Studio III: Special User Groups 3(1-4) F, Sp
Assessment of the special environmental needs of the disabled, elderly and children; application to studio design problems. Prerequisites: HEV 131, HEV 138, HEV 139, HEV 238, HEV 328, HEV 332, HEV 336, HEV 337. Prerequisites or Corequisites: HEV 334, 436.

HEV 432 Seminar in Interior Design 3(3-0) Sp
Capstone course providing focus on current issues in interior design, methods, materials, and portfolio evaluations. Prerequisite: HEV 339, 436. Must be taken during the final Spring semester before graduation.

HEV 433 Professional Practices in Interior Design 3(3-0) F
Application of internships and business procedures to the establishment and general management of a design practice. To be taken immediately following HEV 432. Prerequisite: HEV 438.

HEV 434 Advanced CAD for Interiors 3(2-2) Sp
Advanced application of CAD software. Emphasis on application of the computer as a design tool; topological applications and computer graphic methods. Prerequisites: HEV 334, HEV 337; Prerequisite or Corequisite: HEV 339, 436.

HEV 436 Lighting and Other Mechanical Systems 3(2-2) F
Considers the role of mechanical systems in the design of interior spaces with emphasis on lighting, and including heating, ventilation, air conditioning, and acoustical systems. Prerequisites: HEV 137, HEV 138, HEV 231, HEV 337; MTH 055.

HEV 437 Interior Design Studio IV: Contract 3(1-4) F, Sp
Application of basic design process to commercial interiors: space planning, furnishings, finishes, color and lighting; programming user needs, applying codes and regulations. Prerequisites: HEV 131, HEV 138, HEV 139, HEV 238, HEV 328, HEV 332, HEV 334, HEV 336, HEV 337, HEV 339, HEV 436.

HEV 438 Interior Design Internship 2(Spec) Su
Supervised internship of 250 hours in an interior design firm or related field designed to complement classroom learning. Taken semester prior to HEV 433. Prerequisite: HEV 338.

Foods and Nutrition

FOODSCOURSES:

HEV 160 Introduction to Foods 4(2-4) F, Sp

HEV 263 Beverages in Foodservice 3(3-0) Sp
A study of the sources, production, storage and service of coffee, tea, carbonated beverages, beer, wine, and spirits.

HEV 361 Experimental Foods 3(2-2) Sp
Scientific examination of the behavior of foods. Prerequisites: HEV 160; CHM 120,CHM 127 or both CHM 131 and CHM 132.

HEV 363 Food Safety and Sanitation 1(1-0) F
Safe handling of foods as related to purchase, storage, preparation and service. Certification in Sanitation by the National Education Foundation is earned by passing exam. Prerequisites: HEV 160 or permission of instructor.

HEV 365 Quantity Food Production 2(2-0) F, Su
Principles of production: standardized recipes; schedules; forecasting; quality and hazard analysis; yields; principles of cookery in quantity; kitchen departmentalization; production, distribution and service systems. Successful completion of the Michigan Occupational Competency Assessment Center’s exam in food management results in credit for this course. Prerequisite: HEV 160.

HEV 366 Quantity Food Production Laboratory 2(0-4) Sp, Su
Techniques of food preparation in quantity using a wide variety of equipment. Application of the principles of procurement, food production, safety, sanitation, distribution and service. Successful completion of the Michigan Occupational Competency Assessment Center’s exam in food management results in credit for this course. Prerequisites: HEV 160, HEV 365, HEV 368.

HEV 463 Menu Planning: Design and Service 3(3-0) Sp
Concept of menu design: copy, layout, types, design, nutrition, construction, pricing techniques and consistency of concept. Service styles and front-of-the-house management presented. Prerequisite: HEV 370.

HEV 465 Foodservice Facilities Design 3(2-2) F
-Equipment, energy, space allocation and work analysis studied to produce a foodservice facility which best serves the target market. Computer Assisted Design utilized. Prerequisite: HEV 365.

HEV 467 Quantity Food Purchasing 3(3-0) F
Interaction with intermediaries, buying methods, identification and specifications for food and non-food items presented. Prerequisite: HEV 160.

HEV 468 Foodservice Internship 3(Spec) D
An internship of 240 hours in food production. HEV 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: HEV 365, HEV 366, HEV 465, HEV 467.

HEV 567 Foodservice Systems Administration 4(4-0) Sp
Study of subsystems in institutional foodservices: purchasing, storage controls, cost containment, personnel selection and development, leadership, decision making, facilities control. Prerequisites: HEV 365, HEV 463.

NUTRITION COURSES:

HEV 370 Nutrition 3(3-0) F, Sp, Su
Principles of normal nutrition as related to the health of all age groups. (Group II-A)

HEV 371 Food and Culture in the United States 3(3-0) F
Characteristics and effects of food choices among culturally diverse groups within the United States.

HEV 375 Nutrition and Performance 3(3-0) F, Sp
Focus is upon sports nutrition for athletes and individuals in recreation. Analysis of the interaction among energy expenditure, fuel needs, and all nutrients. Prerequisites: HEV 370.

HEV 470 Applied Nutrition 3(3-0) Sp
A detailed examination of human nutritional needs and how nutritional science can be applied to meet those needs in health and disease. Prerequisites: HEV 370.

HEV 471 Medical Nutrition Therapy I 3(3-0) F
This course addresses the application of medical nutrition therapy in the treatment and management of injury, illness and other disease conditions. Prerequisites: HEV 370, HEV 473; BIO 392; CHM 342. BIO 392 and HEV 473 may be taken concurrently.

HEV 472 Medical Nutrition Therapy II 3(3-0) F
The application of medical nutrition therapy in the treatment and management of injury, illness and other disease conditions. Continuation of HEV 471. Prerequisite: HEV 471.

HEV 473 Advanced Nutrition 4(4-0) F
Biological needs in human nutrition based on current research and its applications. Prerequisites: HEV 370; BIO 392; CHM 421 or CHM 521.

HEV 474 Nutrition in the Life Cycle 3(3-0) Sp
Analysis of the factors which affect food and nutrient needs for growth, development, and maintenance throughout the entire life span. Prerequisite: HEV 370.
HEV 475 Nutritional and Herbal Supplements 3(3-0) Sp
The potential impact of non-nutrient components in food, nutritional supplements, and herbs in the prevention and treatment of disease via integrative and alternative medical approaches. Prerequisite: HEV 370.

HEV 477 Assessing Nutritional Status 2(1-2) F
Introduces dietary, anthropometric, biochemical, and clinical approaches to assessing nutritional status. Prerequisite: HEV 370.

HEV 570 Nutritional Education 4(4-0) F
Teaching strategies, advising techniques, resources, and motivational techniques as specifically applied to patients/clients in nutrition programs and patient/clients receiving nutrition services. Prerequisite/Corequisite: HEV 471; or permission of instructor.

HEV 573 Field Work: Community Nutrition 3(Spec) Sp
Consulting, teaching and supportive research experiences in the field with a nutritionally vulnerable group. Prerequisites: HEV 370 and HEV 570, or permission of instructor.

HEV 575 Geriatric Nutrition 3(3-0) F
A detailed description of nutrition for the elderly, including special nutritional considerations of 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. Prerequisite: HEV 370.

HEV 577 Advanced Topics in Nutrition: Eating Disorders 3(3-0) Sp
Analysis of factors involved in etiology, assessment, medical consequences, treatment, and prevention of eating disorders. Prerequisites: HEV 370 or permission of instructor.

HUMAN DEVELOPMENT AND FAMILY STUDIES

HEV 100 Human Growth and Development: Lifespan 3(3-0) F, Sp
Study of the basic principles of human development and their relation to family interactions throughout the lifespan. Students who have taken EDU 280 or PSY 220 should seek departmental advice prior to enrollment. Prerequisites: None. (Group III-A)

HEV 110 Oppression: Roots and Impact on Human Development in the United States 3(3-0) F, Sp
Examines the roots and impact of different forms of oppression on the development of individuals within the family context. (Group IV-C)

HEV 111 Family as an Economic Unit 3(3-0) F, Sp
A study of the interrelationship of the institutions which comprise the economy from the focal point of the family as a producing-consuming-transforming unit.

HEV 211 Marriage and Family Perspectives 3(3-0) F, Sp
Cultural-historical perspective of marriage and family. Social and psychological dynamics of individual and family interaction.

HEV 212 The Family in Cultural Perspective 3(3-0) F, Sp
The varieties of family forms and resulting patterns of interpersonal relations to be found throughout Western history and in selected Western and non-Western cultures. (Group III-B)

HEV 213 Introduction to Human Sexuality 3(3-0) F, Sp
Human sexual development throughout the human life cycle. Emphasis on understanding and acceptance of self as a sexually functioning person. Identical to SOC 213 and WST 213. Credit may not be earned in more than one of these courses.

HEV 214 Consumer Economics 3(3-0) F, Sp
Consideration of issues and problems related to the informed and responsible consumer.

HEV 219 HDFS Field Work 3(1-6) F, Sp
This course examines service learning and potential career paths for professionals in Human Development and Family Studies. Field placements required. Prerequisites: a signed major in Child Development or Family Studies; completion of HEV 100 or HEV 211; or permission of instructor.

HEV 302 Human Growth and Development: Infancy 3(3-0) F
Pregnancy, prenatal development, childbirth, and the development of infants and toddlers (to 3 years) within the family and the larger social systems. Prerequisite: one of: HEV 100, EDU 280, or PSY 220.

HEV 303 Human Growth and Development: Early Childhood 4(3-2) F, Sp
Principles for growth and development of preschool and early elementary children (ages 3-8) from diverse backgrounds and observation of children in early education settings. Prerequisite: HEV 100 or EDU 280 or PSY 220, or permission of instructor.

HEV 306 Human Growth and Development: Adolescence 3(3-0) Sp
Study of adolescence and issues relating to the family of a teenager. Prerequisite: HEV 100 or permission of instructor.

HEV 307 Human Growth and Development: Parent-Child Relations 3(3-0) F, Sp
The study of the parent-child relationship, and the impact of that relationship on the development of both children and parents. Prerequisite: one of: HEV 100, EDU 280, or PSY 220.

HEV 308 Human Growth and Development: Theory 3(3-0) F, Sp
Survey of human development theory. Prerequisites: HEV 100; a signed major or minor in Child Development, Human Development, or Family Studies; or permission of instructor.

HEV 315 Family Management Theory 3(3-0) F, Sp
An integrated nature of family management; values, goals as reflected in decision-making regarding family resources.

HEV 318 Indigenous Families and Survival: A Global Perspective 3(3-0)
Focuses on indigenous peoples 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; HEV 110; HST 163, HST 176; REL 220. (Group IV-B)

HEV 319 HDFS Skills and Methods 3(3-0) F
An introduction to the skills and methods essential for work with individuals and families in service fields. Prerequisites: HEV 219 with a grade of C+ or better; a signed major in Child Development or Family Studies.

HEV 381 Education for Family Life and Human Sexuality 3(3-0) F
Course designed to familiarize human development and family studies students with the methods and materials necessary to teach and work as a family-helping professional. Prerequisites: HEV 100 or EDU 280 or PSY 220; HEV/SOC 213 or HSC 222; HEV 211; 3 other credits in the Family Studies major or Family Life and Human Sexuality minor.

HEV 402 Human Growth and Development: Guidance for Young Children 4(3-0) F, Sp
Methods and theories of guidance for working with children in early childhood settings. Supervised laboratory experience. Prerequisite: HEV 303 with a grade of C+ or better.

HEV 403 Human Growth and Development: Curriculum and Planning in Pre-Primary Programs 3(3-0) D
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: HEV 303 with a grade of C+ or better.

HEV 409 Human Growth and Development: Lead Teaching Experience 8(2-18)
Development of professional skills for working with young children and families. Supervised lead teaching experience in the Human Development and Development Laboratory. Prerequisites: HEV 219, grade of C+ or better in both HEV 402 and HEV 403.

HEV 411 Family Relations 3(3-0) F, Sp
Psychosocial factors affecting interpersonal relationships throughout the family life cycle. Prerequisite: HEV 211 or equivalent.

HEV 413 Facilitating Discussion in Human Sexuality Groups 3(3-0) F, Sp
The purpose, rationale, professional issues, planning, techniques and methods, learning objectives, evaluation, and guided experience in facilitating discussion in human sexuality groups. Prerequisites: permission of instructor; HEV 213 or SOC 213 or WST 213.

HEV 414 Human Development and Family Studies Research Methods 3(3-0) D
This course is an introduction to research methods within human development and family studies. Prerequisites: HEV 100 or PSY 220 or EDU 280; HEV 211, HEV 291; PSY 211; 3 other HEV credits in human development and family studies.

HEV 418 Family Development in Late Life 3(3-0) F, Sp
This course examines individual development and aging within the context of the family: marriage, singleness and widowhood; intergenerational relations and grandparenthood; sibling relations and friendships.

HEV 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: HEV 319 or HEV 508 with a grade of C+ or better; a signed major in Child Development or Family Studies.

HEV 481 FCS/LME Teaching Methods 3(3-0)
Covers material designed to prepare students for an endorsement in Family and Consumer Sciences/Life Management Education. Prerequisites: completion of all courses in Family Studies/Life Management Education Major.

HEV 506 Human Growth and Development: Practicum in Parent Involvement 3(2-2) D
Analysis of goals, trends, methods and models of parent involvement with opportunities to plan programs for parents, and to work with parents in professional settings. Prerequisites: HEV 307; one of: HEV 302, HEV 303, HEV 308.

HEV 508 Human Growth & Development: Preschool Administration 3(3-0) Sp
The functional role of the preschool program director, legal and administrative controls. Prerequisite: HEV 303.

HEV 510 Human Growth and Development: Seminar 3(3-0) D
Course examines the perspectives of human development, life span research; the domains of learning/development and the philosophy and history of human development. Prerequisites: any two 300 level Human Growth and Development courses; or Human Development and Family Studies graduate status; or permission of instructor.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HEV 511</td>
<td>Seminar in Human Sexuality 3(3-0) F</td>
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<td>HEV 512</td>
<td>Seminar: Family Relations 3(3-0) Sp (Even Year)</td>
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<td>HEV 513</td>
<td>Readings in the Family 3(3-0) Sp</td>
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<td>HEV 515</td>
<td>Current Issues in Marriage and the Family 3(3-0) D</td>
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<td>HEV 291</td>
<td>Human Environmental Studies: Family Ecology 3(3-0) F, Sp</td>
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<td>HEV 297</td>
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<td>HEV 490</td>
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<td>HEV 600</td>
<td>Human Development and Family Studies 3(3-0) F</td>
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<td>HEV 601</td>
<td>Human Growth and Development: 0-8 Years 3(3-0) D</td>
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<td>HEV 603</td>
<td>Human Diversity Within and Between Families 3(3-0) Sp</td>
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<td>HEV 606</td>
<td>Human Growth and Development: Issues in Adolescent Development 3(3-0) D</td>
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<td>HEV 609</td>
<td>Human Development Theory and Current Issues 3(3-0) D</td>
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<td>HEV 615</td>
<td>Theoretical Approaches to Family Processes 3(3-0) D</td>
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<td>HEV 618</td>
<td>The Family Life Cycle: The Older Adult 3(3-0) D</td>
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<td>Continuing Registration for Final Research Project 1(1-0)</td>
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<td>Macronutrients 3(3-0) D</td>
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<td>Micronutrients 3(3-0) Sp (Term I) Even Years</td>
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<td>Nutritional Assessment 3(2-2) D</td>
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<td>Dietetic Internship: Clinical Experience 5(Spec) F</td>
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<td>HEV 675</td>
<td>Dietetic Internship: Foodservice Administration Experience 5(Spec) F, Sp</td>
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<td>Dietetic Internship: Summary Experience 2(Spec) Sp, Su</td>
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<td>HEV 677</td>
<td>Nutritional Epidemiology 3(3-0) D</td>
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<td>HEV 679</td>
<td>Advanced Topics in Nutrition: Obesity 3(3-0) D</td>
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<td>HEV 697</td>
<td>Special Studies Human Environmental Studies 1-15(Spec) F, Sp, Su</td>
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<td>HEV 786</td>
<td>Occupational Field Experience 3(Spec) F, Sp, Su (Odd Year)</td>
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<td>HEV 790</td>
<td>Independent Study 2-6(Spec) D</td>
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<td>HEV 797</td>
<td>Special Studies in Human Environmental Studies 1-15(Spec) F, Sp, Su</td>
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<td>HEV 798</td>
<td>Thesis 1-6(Spec) D</td>
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**Hotel Administration (HOA)**

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)**

Practives 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 426 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 Gaming 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 Courses (HON)**

Descriptions of courses approved for the University Program appear in italic type.

**HON 100 Introduction to Honors 1(1-0)**

This course introduces Honors students to the Honors Program through speakers, readings, service projects, academic planning and skills sessions, to achieve an optimal educational experience. CR/NC only. Prerequisites: admission to the Honors Program.

**HON 102 Honors Colloquium 1-3(Spec)**

Colloquia are experimental or novel courses which are open to all Honors students. 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: Honors students only.

**HON 110 Speaking and Writing with Critical Awareness 6(6-0)**

Oral competency and freshman level written competency primarily for Centurals Scholars, other students admitted with permission of instructor. Prerequisites: receipt of a Centurals Scholar Award or permission of instructor.
HON 110 Honor Readings 1-6(Spec) F, Sp
Class members will read and discuss articles, books, and research relating to persistent and/or contemporary problems and topics in informal evening fireides. Open primarily to freshmen as an introduction to critical evaluation and multidisciplinary study.

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 Centralis Scholarship Award or permission of instructor. Prerequisite or Corequisite: HON 110 or permission of instructor. (Group III-A and B)

HON 121 Proseminar in Natural Science 3(3-0) F, Sp
HON 124 Proseminar in Humanities 3(3-0) F, Sp
HON 127 Proseminar in Social Science 3(3-0) F, Sp
Primarily for freshmen students. Honors proseminars introduce the students to selected disciplines within the respective areas of natural science, humanities and social science—their scope and depth, place in the structure of knowledge, role in furthering human understandings, and their methods and tools of research.

HON 130 Western Cultural and Intellectual Traditions 3-6(Spec)
A comprehensive overview of the origins, development, and expression of the cultural and intellectual traditions that characterize “Western” Civilization. Prerequisites: Honors standing, SPECIAL NOTE: This course is to be offered for 3 hours of credit in successive Fall and Spring terms and may be taken for a maximum of 6 hours. A student must complete both semesters in order to fulfill Groups I-A and I-B in the University Program. If one does not complete both, then the student may count the course solely as credit toward commencement and must complete other courses to fulfill the General Education requirement of Groups I-A and I-B.

HON 140 Symmetry in Science: From Microscopic to Macroscopic Systems 6(5-3)
An introduction to the principles, methods, nature and theories associated with the natural sciences and mathematics. Uses a theme of symmetry. Prerequisites: receipt of a Centralis Scholarship Award or permission of course instructor. (Group III-A and B)

HON 150 Racism in the American Experience: Origins, Development, and Impact 6(6-0)
This course will explore the development of racism in America and its profound and diverse impact upon us as a nation and a people. Prerequisites: receipt of a Centralis Scholarship Award or permission of course instructors.

HON 197 Centralis Freshman Seminar 3-6(Spec)
Seminars focused on special topics and skills for freshman Centralis students. Repeatable up to 6 credits when content previously studied is not duplicated. Prerequisite: Centralis freshmen only.

HON 321 Seminar 3-12(Spec) F, Sp
Honors seminars are more cognitively advanced courses addressing various topics, themes, and problems, and assuming experience and skill in analysis, synthesis, critical evaluation, and research. They are open primarily to sophomores, juniors, and transfer students.

HON 399 Independent Study 1-6(Spec) F, Sp
Provides an opportunity for the student to investigate an approved topic which relates to her/his special needs and interests.

HON 401 Confrontation Colloquium 3-6(Spec) F, Sp
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) F, Sp
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)
The complete description of Health Professions is found in the Herbert H. and Grace A. Dow College of Health Professions information.

HPS 101 Introduction to the Health Professions 2(1-2) F
Provides students with an understanding of the various health professions while exploring personal characteristics necessary for self-identification of career direction.

Hospitality Services Administration (HSA)
The complete description of Hospitality Services Administration is found in the Marketing and Hospitality Services Administration Department in the College of Business Administration.

HSA 245 Wines of the World 1(1-0) D
This is an introduction to the subject of wine, its history, variety, production, commercial and social role. Prerequisites: HON 121 or permission of instructor. Credit may not be earned in more than one of these courses.

HSA 341 Services Marketing 3(3-0) D
Planning and implementation of marketing strategy and application of the marketing mix to services including hospitality, banking and health services. Identical to MKT 341.

HSA 344 Legal Aspects of Hospitality Services 3(3-0) D
An analysis of the legal and labor environments of the hospitality services industry. Prerequisites: HON 399 or permission of instructor. Credit may not be earned in more than one of these courses.

HSA 350 Lodging Operations 3(3-0) D
A detailed look at the multi-dimensional lodging operations from a manager’s perspective. Prerequisites: HON 121 or permission of instructor. Credit may not be earned in more than one of these courses.

HSA 360 Field Studies in Hospitality Services Administration 3(3-0) D
Activities which may include industry visits 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 445 Advanced Food and Beverage Systems Management 3(3-0) D
Studies in advanced management requirements in food and beverage systems. Prerequisites: Completion of HON 121 or permission of instructor. Credit may not be earned in more than one of these courses.

HSA 447 Financial Management in the Hospitality Service Sector 3(3-0) D
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: HON 121 or permission of instructor. Credit may not be earned in more than one of these courses.
School of Health Sciences (HSC)

The complete description of the School of Health Sciences is found in the Herbert H. and Grace A. Dow College of Health Professions.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: HSC 107, 235, 317, 520, 523, 526, 529, 530, 547.

HSC 106 Healthy Lifestyles 3(3-0) F, Sp
Focus on individual health and wellness concepts from interdisciplinary perspectives. Designed to assist the individual in striving for lifelong learning about healthier lifestyles. (Group IV-A)

HSC 107 Drugs and the Athlete 1(1-0) F, Sp
An orientation for the student athlete in the basic chemical substances and nutrition as an ergogenic aid as they affect performance. Prerequisite: permission of department chairperson.

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) F, Sp
A self-study module course for learning the meaning and use of prefixes, suffixes, root words and terms commonly used in health care fields. CR/NC only.

HSC 202 Women's Health 3(3-0) F, Sp
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 205 Responding to Emergencies 2(1-2) F, Sp
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) F, Sp
Introductory course in structure and function of the human body. (Group II-A)

HSC 212 Applied Physiology and Kinesiology 3(2-2) F, Sp
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 or equivalent, or permission of instructor.

HSC 213 Anatomy & Physiology Laboratory 1(0-2) D
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 3(2-2) F, Sp
Introductory course in structure of the human body. Laboratory work in fundamental anatomical principles is included.

HSC 215 Human Physiology 3(2-2) F, Sp
An introductory course in function and control systems of the human body. Laboratory work in fundamental physiological principles is included. Prerequisite: HSC 214 or permission of instructor.

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 220 Basics In Health Fitness 3(2-2) F, Sp
Theory and practices related to exercise testing and administration. Practical experience in body composition techniques, electrocardiography, and fitness evaluation. Prerequisites: HSC 214, HSC 215 or equivalent; or permission of instructor.

HSC 222 Sexuality In Health Education 3(3-0) F, Sp
Emphasis on understanding and human values as related to programming sex education in health education classes. Not open to students with credit in HSC 527.

HSC 235 Psychoactive Drugs 3(3-0) F, Sp
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.

HSC 236 Substance Abuse Intervention Programming 3(3-0) D
The impact of drug abuse on society and efforts to prevent substance abuse, including prevention, interdiction, treatment and follow-up. Prerequisite: HSC 235 or equivalent.

HSC 297 Special Topics 1-12(Spec)
Contains subject matter not included in courses currently listed in the Bulletin.

HSC 305 First Aid/CPR Instructors 1(1-0)
Methods and resources for teaching first aid and/or CPR. American Red Cross instructor's certification for first aid and/or CPR can be obtained. Prerequisites: current ARC first aid and/or CPR certification; HSC 205 or permission of instructor.

HSC 308 Work Physiology 3(3-0) F, Sp
Lectures on basic principles of physiology of exercise. The basics of exercise, performance conditioning, and the human organism response to these conditions. Identical to PES 308. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211 or equivalent or permission of instructor.

HSC 310 ECG Assessment 2(2-1) F
Emphasis is placed on the recognition and interpretation of normal and abnormal resting and exercise ECG's. Includes lab experience in resting and exercise ECG monitoring. Prerequisites: HSC 214, HSC 215; or permission of instructor.

HSC 313 - Field Experience in School Health Education 1(Spec)
A 30-hour field experience of on-site observation and participation under the supervision of the department and a secondary school health education teacher. CR/NC only. Prerequisites: EDU 107; HSC 205, HSC 211, HSC 222, HSC 235; HSC 503 or HEV 370.

HSC 317 Community Health 3(3-0) F, Sp
Introduction to public health, and services provided to citizens and educators by official and voluntary health agencies.

HSC 319 Methods and Materials in Community Health Education 3(Spec) F, Sp
Skills and techniques in writing, developing printed materials, public speaking, and group dynamics as they relate to community health education programs. Prerequisites: HSC 419.
HSC 322 Supervised Field Training 8(Spec) F, Sp, Su
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. Prerequisites: HSC 419.

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. Prerequisite: None.

HSC 340 Curriculum in Health Education 3(3-0) F, Sp
Study of modern curriculum philosophy, structure, placement, and content within elementary, junior, and senior high schools.

HSC 343 Health Education in the Elementary School 3(2-2)
A study of elementary health education programs. Upon successful completion (C+ or better) the students will be qualified to teach Michigan Model Comprehensive Health, Reproductive Health and HIV/AIDS education. Prerequisites: admission to teacher education or teacher certificate.

HSC 346 Methods and Resources in Teaching Health 3(3-F) F
Methods and resources in teaching health education. A lab will be devoted to micro-teaching. Prerequisite or Corequisite: HSC 340.

HSC 350 Community Service in the Health Educators 2(2-D)
A service-learning experience where the student is engaged in a hands-on service project. Academic credit includes the philosophy, objectives, and methods of community service. Prerequisite: HSC 317 or permission of instructor.

HSC 352 Environmental Health 3(3-F) F, Sp
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 380 Practicum in Health Education 3(Spec) F, Sp
A study dealing with existing health problems or situations by employing the problem-solving method. Prerequisite: permission of instructor.

HSC 390 Health and Aging 3(3-F) F
A study of age-related changes of the body, health concerns, healthy lifestyles and health care for older adults.

HSC 407 Introduction to Health Service Organizations and Systems 3(3-0)
Macro level study of healthcare system(s) including delivery, integration, reimbursement mechanisms, multi-organizational and interorganizational arrangements, health policies, and future solutions. Prerequisite: HSC 317 or permission of instructor.

HSC 411 Pathophysiology 3(3-0) F, Sp
Study of body's physiological responses to disease states. Emphasis is placed on the interactions among body systems and the alterations in homeostatic mechanisms. Prerequisites: HSC 211 or HSC 215 or equivalent.

HSC 414 Decision Technologies in Health Care 3(3-0)
This course surveys two computer-based tools, simulation and geographical information systems, commonly used to market and manage the delivery of health services. Prerequisite: an introductory probability or statistics course.

HSC 418 Professional Aspects of Health Education 2(2-D)
This course will address professional issues relating to the history, philosophy, ethics, practice, settings, competencies, and current events of health education. Prerequisites: HSC 317 or concurrent enrollment.

HSC 419 Community Health Education, Assessment, Planning and Program Evaluation 3(3-0)
Models, theories, methodologies, interventions, and evaluation of community health assessments and programs will be discussed, along with other health education responsibilities and initiatives. Prerequisites: HSC 418 or concurrent enrollment; HSC 544 or concurrent enrollment.

HSC 420 Health Fitness Assessment 3(2-3)
Practical course in exercise testing as used in health fitness settings including tests of cardiopulmonary 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) F, Sp, Su
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 425 Health Fitness Program Administration/Management 3(3-0)
This course will prepare students to work in health fitness settings organizing, administering and supervising programs for apparently healthy individuals or those with controlled risks. Prerequisites: HSC 420, HSC 421.

HSC 503 Health Implications of Obesity 3(3-F) F, Sp
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-F)
The study of etiology, epidemiology, treatment, management and prevention of neuromuscular and musculoskeletal injuries in workplace settings. Prerequisites: HSC 211 or HSC 214.

HSC 506 Health and Physical Development in Late Life 3(3-0)
This course examines in depth the processes of normal aging as well as important issues affecting the health of older adults. Prerequisites: BIO 101 or permission of instructor.

HSC 508 Education on Sexual Aggression for School/Community 3(Spec)
This course addresses the realities of sexual aggression, and how schools, corporations, and communities can educate their respective populations on these topics. Identical to PES 508. Credit may not be earned in more than one of these courses. Prerequisites: PES 143 or permission of the instructor.

HSC 510 Independent Reading Experience 1-4(Spec) F, Sp, Su
Individual reading—an experience designed for professional enrichment. 4-hour maximum. CR/NC only.

HSC 512 Special Topics in Health Education 1-12(Spec) D
In-depth consideration of relevant, pertinent health issues.

HSC 514 Biostatistics and Epidemiology 3(3-0)
This course presents biostatistical and epidemiological concepts, principles and methods as they apply to problems within community and public health environments. Prerequisites: MTH 105; HSC 317; or permission of instructor.

HSC 515 Health Promotion in the Workplace 2(2-D)
Content includes needs assessments, organization and management of health promotion programs in the workplace. Guidelines for implementation and evaluation will be studied. Prerequisites: 6 hours of Health Fitness-related credit or permission of instructor.

HSC 516 Travel Course in Health Education 1-6(Spec) D
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-D)
An introduction to medication practices and problems among the elderly, and study of selected drugs and their effects on the aging individual. Prerequisites: HSC 390 or permission of instructor.

HSC 519 Death Education and Suicide Prevention 3(3-0) Sp
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-F) F, Sp
Analysis of organizational patterns, planning procedures, fiscal management, personnel management, and other administrative concerns.

HSC 522 Consumer Health Education 2(2-D) D
Issues of consumer health related to the individual, the community, and society.

HSC 523 AIDS Education 1(1-0) F, Sp
A concentrated study of Acquired Immune Deficiency Syndrome, including the origin, prevalence, spread, disease process, psychosocial aspects and implications for society. Prerequisites: HSC 108, or teaching certificate, or permission of instructor.

HSC 524 Workshop on Health Fitness 2(Spec) D
Guidelines for fitness appraisal and exercise prescription for healthy and high risk adults.

HSC 525 Sexually Transmitted Disease Workshop 1(Spec) D
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) F, Sp
Concentrated study of mental health and illness as related to home, school, and community.

HSC 527 Sex Education Workshop 1(Spec) D
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) D
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(Spec) D
Concentrated study of physiological, psychological, and sociological aspects of alcohol education. Not open to students with credit in HSC 235.
HSC 530 Drug Abuse Workshop 1 (Spec) D
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.

HSC 532 Diversity Issues in the Health Professions 1(1-0)
Developing an understanding of diversity issues in order to become a more effectively multicultural competent health practitioner. Prerequisites: HSC 106 or HSC 317; or permission of instructor.

HSC 534 Workshop in Principles of Cardiovascular Health and Disease 1(Spec) F, Sp
Concentrated study of the physiological aspects of the cardiovascular system and its adaptation to stress.

HSC 535 Family Planning Programming 1(Spec) D
Analysis of the methods of family planning and family planning programming, and their effects on population control.

HSC 537 Stress Reduction Workshop 1(Spec) F, Sp
Systematic evaluation of stress and methods used to effectively reduce stress so that a healthier life style is possible.

HSC 538 Development of Proposals and Reports in Health Administration 3(3-0) Sp
Emphasize format, content, and writing skills necessary for administration of health programs to prepare proposals, reports, and publications.

HSC 540 Medical Aspects of Health 3(3-0) D
A study of the medical specialists role including philosophies, recent concepts, and advances in the profession. Team-taught by medical specialists. Prerequisite: HSC 211 or equivalent.

HSC 542 Patient Education Programming 3(3-0) D
Organization and administration of patient education programs in inpatient ambulatory and community settings.

HSC 544 Biostatistics 3(2-1) F, Sp
Computation of vital statistics' rates and other statistical methods applicable to problems in public health.

HSC 545 Health Planning 3(3-0) F
Study of strategic and operational planning methodologies employed by administrators, educators and planners in health care facilities, community health agencies and health programs. Prerequisites: junior standing or permission of instructor.

HSC 546 Microcomputer Applications to the Health Sciences 3(3-0) D
Microcomputer applications in school and community health, health services administration, health promotion and exercise science, application of current software utilized by the health fields. Prerequisite: CPS 100 or BIS 104, or permission of instructor.

HSC 547 Health Risk Identification and Management 3(3-0) F, Sp
Study of 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.

HSC 550 Stress Test Administration 3(2-2) F
Course in theory and methods of administering exercise stress tests using different modes of exercise and consideration of different populations. Includes classroom and practical experience. Prerequisite: HSC 214, HSC 215, HSC 220, HSC 310; or permission of instructor.

HSC 551 Stress Testing Interpretation 3(3-0) Sp
Course in analysis of information gained from exercise testing, studying deviations from normal, and applications of exercise test information in adult fitness and cardiac rehabilitation programs. Prerequisite: HSC 214, HSC 215, HSC 220, HSC 230, HSC 310; or permission of instructor.

HSC 553 Cardiac Medications 3(3-0) D
An in-depth examination of medications utilized by cardiac patients or those persons with risk factors associated with cardiovascular disease. Prerequisites: HSC 214 and HSC 215; or permission of instructor.

HSC 555 Health Education in the Elementary School 3(3-0) D
Various components of the elementary school program: instruction, curriculum, services, and administration.

HSC 560 Clinical Pharmacology I 3(3-0)
An introduction to drug pharmacodynamics and pharmacokinetics, followed by pharmacotherapy of drugs affecting the autonomic and peripheral nervous, cardiovascular and respiratory systems. Prerequisites: admittance to Physician Assistant program or approval of instructor.

HSC 561 Clinical Pharmacology II 3(3-0)
Continued study of Clinical Pharmacology I with pharmacotherapy of drugs affecting the central nervous system, gastrointestinal and endocrine systems and anti-neoplastics and anti-infective agents. Prerequisites: HSC 560; admittance to the Physician Assistant Program or approval of instructor.

HSC 565 Clinical Microbiology/Infectious Diseases 3(3-0)
A study of the diseases produced by pathogenic bacteria, viruses, fungi and parasites. Case presentations, diagnostic methods and treatment will also be included. Prerequisite: admittance to Physician Assistant Program or approval of instructor.

HSC 570 Financial Aspects of Health Services Organizations 3(3-0) Sp
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) F
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 improve-ments specific to health care. Statistical principles and illustrative cases are presented. Prerequisite: HSC 520 or permission of instructor.

HSC 580 Teaching Sexuality and Reproductive Health in Schools 2(2-0) D
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. Identical to HEV 580. Credit may not be earned in more than one of these courses. Prerequisites: a teaching certificate or approval of the instructor.

HSC 582 Regional Human Anatomy 5(3-4)
A regional approach to the structure of the human body, concentrating on the interrelationships of different anatomical structures and their clinical applications. Prerequisites: HSC 214; admission to physical therapy program, physician assistant program or permission of instructor.

HSC 583 Anatomy of Joints 1(0-2)
Study of the normal anatomy of joints of the body, common injuries and clinical applications will be included. Students will dissect selected joints. Prerequisites: HSC 214, HSC 582; or permission of instructor.

HSC 585 Wellness at the School Work Site 1(1-0)
Theory and practice of wellness programs for school district employees will be explored along with health risk behaviors. Prerequisites: completion of 80 semester hours of undergraduate credit, experience in schools or permission of instructor.

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 class courses OR/N only. Prerequisites: HSC 517, HSC 407, HSC 520, HSC 570, HSC 571 and permission of advisor for undergraduates; HSC 520, HSC 570, HSC 571, HSC 607 and permission of advisor for graduate students.

HSC 597 Physiological Responses to Abused Substances 3(3-0)
Study of how the body responds to substances, the mechanisms of action, therapeutic uses, and health implications of drugs that are abused. Prerequisites: HSC 235 or equivalent or permission of the instructor. HSC 211 recommended.

HSC 598 Nature and Dynamics of Destructive Health Habits 3(3-0)
Etologies and recovery strategies of substance abuse, eating and sexual disorders and the detrimental health habits which undermine healthy lifestyles. Prerequisites: HSC 235 or permission of instructor.

HSC 599 Issues for Substance Abuse Workers 1(1-0)
A capstone course for students in Substance Abuse Education, dealing with certification, specific populations, employment opportunities, professional conduct, and current research in the field. The course is designed to be taken during the last two subjects covered in previous courses in the Substance Abuse Minor. CR/NC only. Prerequisites: HSC 235, HSC 226, HSC 598; or permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

HSC 601 Computerized Health Care Systems 3(3-0) D

HSC 604 Epidemiology 3(3-0) Sp

HSC 605 International Health Education 3(3-0) D

HSC 607 Health Service Organizations: Origins, Systems, and Applications 3(3-0) F

HSC 612 Individualized Learning Experience 1-10(Spec) F, Sp, Su

HSC 617 Community and Public Health 3(3-0) F, Sp
HST 301

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. (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 1688 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 302. Credit may not be earned in more than one of these courses.

HST 362 Latin American Revolutions: Mexico, Cuba and Central America 3(3-0)
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 340. Credit may not be earned in more than one of these courses. Prerequisites: HST 378 or PSC 340 or permission of instructor. (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 392 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; for teacher education and non-teacher education students. Prerequisites: HST 101, HST 102; or permission of instructor.

HST 397 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 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; 2.70 GPA in history major or minor; or permission of instructor.

HST 491 Independent Research 3(Spec)
Research and writing on a topic selected in consultation with an instructor. HST 491 may not be used as a substitute for HST 496. Prerequisites: junior or senior standing with B average in 12 hours of history; permission of instructor and the department chairperson.

HST 496 Research Seminar 3(3-0)
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, or permission of instructor.

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. Prerequisite: one of HST 101, HST 102, HST 350 or HST 351; or permission of instructor.

HST 511 Colonial British America 3(3-0)
Explores the social, cultural and political development of British America in the seventeenth and eighteenth centuries. Prerequisites: one of the following:
HST 111, HST 323, HST 324, HST 326, HST 351; or permission of the instructor.

HST 512 Era of the American Revolution 3(3-0)
The causes of the War of Independence, the course of the war, the political, social, and cultural change of the Revolutionary period; and the formation of the Federal Constitution. Prerequisites: HST 110 or HST 311; HST 301; or permission of instructor.

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. Prerequisites: HST 110 or HST 311; HST 301; or permission of instructor.

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 secession, the conduct of the war, and the reconstruction of the South to 1877.

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. Prerequisite: HST 112 or HST 321, or permission of the instructor.

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)
The major issues in American diplomacy, beginning with the birth of the Republic and continuing to the Spanish-American War. Prerequisites: HST 110, HST 111; or permission of instructor.

HST 523 African Diplomatic History, 1775-1898 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. Prerequisite: one of HST 101, HST 102, HST 350 or HST 351; or permission of instructor.

HST 524 African Diplomatic History since 1899 3(3-0)
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. Prerequisites: 12 hours of humanities and social science.

HST 532 Michigan History Studies 1-3(Spec)
Individual and group studies in regional and local Michigan history.

HST 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. Prerequisite: HST 238 or permission of instructor.

HST 542 The Enlightenment in Europe 3(3-0)
The social, cultural, political and intellectual history of Europe in the late seventeenth and eighteenth centuries. Prerequisites: 6 hours of European history before 1815, or permission of instructor.
HST 548 Russian Thought 3(3-0)
Currents of Russian thought. Emphasis on the nineteenth century.

HST 588 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. Prerequisites: one of: HST 102, HST 106, HST 344, or permission of instructor.

HST 562 The Atlantic World in the Age of Empire 3(3-0)
Study of the political, social, cultural and economic interactions of Europe, Africa, and the Americas from the sixteenth to the nineteenth century. Prerequisite: one of: HST 111, HST 163, HST 176, HST 324, HST 341, HST 377, HST 511, or permission of instructor.

HST 566 Seminar in Contemporary Asia 3(3-0)
Studies of selected aspects of present-day Asia. Prerequisites: at least one of: HST 168, HST 369, HST 370.

HST 569 China and the West 3(3-0)
A comparative analysis of some major social, political and cultural institutions in Chinese and Western history, aiming at a cross-cultural understanding. Prerequisites: one of: HST 101 or HST 168 or HST 200 or HST 238 or HST 369, or permission of the instructor.

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. Prerequisites: 12 hours of HST, or permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

HST 600 Historiography 3(3-0)

HST 602 Colloquium in United States History to 1865 3-6(3-0)

HST 603 Colloquium in United States History since 1865 3-6(3-0)

HST 619 Continuing Registration for Final Research Project 1(1-0)

HST 636 Colloquium in Ancient History 3-6(3-0)

HST 650 Colloquium in European History to 1450 3(3-0)

HST 651 Colloquium in Early Modern European History 3-6(3-0)

HST 652 Colloquium in Modern European History 3-6(3-0)

HST 690 Advanced Readings 1-9(Spec)

HST 695 Special Studies at Strathclyde 3-30(Spec)

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(3-0)

HST 713 Seminar in the History of Nineteenth Century America 3-6(3-0)

HST 715 Seminar in the Civil War and Reconstruction 3(3-0)

HST 717 Seminar in the History of Twentieth Century America 3-6(3-0)

HST 723 Seminar in American Diplomatic History 3(3-0)

HST 738 Seminar in Ancient History 3-6(3-0)

HST 740 Seminar in Medieval West 3(3-0)

HST 741 Seminar in Early Modern Europe 3(3-0)

HST 742 Seminar in Eighteenth-Century European History 3(3-0)

HST 744 Seminar in Nineteenth-Century European History 3-6(3-0)

HST 758 Seminar in Twentieth-Century European History 3-6(3-0)

HST 763 Seminar in Latin American History 3(3-0)

HST 766 Seminar in Asian History 3(3-0)

HST 791 Graduate Research 3-6(Spec)

HST 798 Thesis 1-6(Spec)

HST 898 Dissertation 1-36(Spec)

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: HST 532, 590, 595, 597, 690, 791.

Humanities (HUM)
The complete description of Humanities is found in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved by the University Program appear in italic type.

HUM 101 Introduction to the Humanities 3(3-0)
Introduction to the study of selected topics in the humanities from various perspectives (historical, literary, religious, philosophical) in small group discussion (seminar) format. (Group I-A)

HUM 197, 397, 597 Special Studies in Humanities 1-12(Spec)
HUM 197 is primarily for freshmen and sophomores; 397 is primarily for juniors and seniors; 597 is primarily for graduate students. Prerequisite: permission of instructor.

HUM 201 The Classical World: Law and Society 3(3-0)
Interdisciplinary study of law in the classical world, focusing on the trials of literary and historical figures such as Orestes, Socrates, Catiline, and Jesus. Prerequisite or corequisites: HST 238, ENG 261. (Group IV-A)

HUM 202 Age of Charlemagne 3(3-0)
Artistic, cultural, economic, and political study of the Carolingian period of the Middle Ages. Special emphasis placed on the reign of Charlemagne and the Carolingian Renaissance. Prerequisites: ART 185; HST 200; or permission of instructor.

HUM 303 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. Prerequisites or corequisites: ENG 362; HST 200 or HST 340. (Group IV-A)

HUM 340 Race, Class and Power: South Africa in the Twentieth Century 3(3-0)
The course explores the challenges of Afrikaner nationalism and its apartheid policies by traditional liberalism, Black African nationalism, revolutionary Marxism and ethnic mobilization. Identical to HST 379. Credit may not be earned in more than one of these courses. Prerequisites: HST 176; PSC 340; or permission of instructor. (Group IV-A)

HUM 370 The Age of Augustus 3(3-0)
An interdisciplinary study of the foundation of the Roman Empire based on artistic monuments and primary sources in translation. Prerequisites: HST 238 or permission of instructor. (Group IV-A)

HUM 430 Self and Identity in American Life 3(3-0)
This interdisciplinary honors seminar explores identity formation in American life. Students explore major theories of identity formation and apply them to different dimensions of identity. Prerequisites: junior or senior status or permission of instructor.

HUM 510 Words and Music: A Theatrical Partnership 4(4-0)
The course considers musical theater as a unique art form, combining music, literature, and stagecraft into a whole greater than the sum of its parts. Prerequisites: junior standing or above; any 300-level course in music, English, foreign language, or theater and interpretation; or permission of instructors.

HUM 597 Special Studies in Humanities 1-12(Spec) D
Prerequisite: permission of instructor.

HUM 610 Seminar in American Individualism 3(3-0) D

HUM 619 Continuing Registration for Final Research Project 1(1-0)

HUM 797 Special Topics in Humanities 1-6(Spec)

HUM 799 Thesis 1-6(Spec)

Industrial and Engineering Technology (IET)
The complete description of the Engineering & Technology Department is found in the College of Science & Technology.

Distance Learning Courses. Courses in the department approved for offering in a distance learning format include: IET 357, 363, 367, 368.

IET 116 General Drafting 3(2-2), F, Sp
An introduction to the language of industry; includes lettering, sketching, pictorials, multiview projection, dimensioning, auxiliaries, sections, development, 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. Prerequisites: MTH 105 or equivalent.

IET 143 Introduction to Graphic Arts 3(2-2) F, Sp
Letterpress, gravure, screen printing, bookbinding, and basic principles and processes of graphic reproduction.
IET 154 Engineering Design Graphics 3(2-2) F, Sp
Includes principles of orthographic projection, pictorials, descriptive geometry, the design process and computer graphics. Prerequisites: one full year of high school drafting or IET 116.

IET 160 Wood Technology 3(1-4) F, Sp
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) F, Sp
Introduction to the processing of metal materials through casting, fabricating, machining, and basic welding.

IET 180 Power and Energy Technology 3(2-2) F, Sp
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) F, Sp
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) D

IET 225 Manufacturing Process Planning 3(3-0) D
Study of the responsibilities and activities normally associated with process planning and its relationship to other manufacturing functions. Prerequisites: IET 170 or departmental permission.

IET 227 Principles of Accident Prevention 3(3-0) D
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) F, Sp
Apply creative thinking and problem solving skills to develop learning activities co-related with core curriculum concepts, utilizing materials, tools, and processes in cooperative learning environments.

IET 284 Fluid Power Technology 3(2-2) F, Sp
A study of hydraulic and pneumatic technologies related to the generation, transmission, and control of fluid power in fluid power systems. Prerequisites: IET 120, MTH 130; or IET 180, MTH 105; or permission of instructor.

IET 291 Applied Electronics 3(2-2) F, Sp
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) F, Sp
Introductory dc circuit analysis including Ohm’s law, Kirchoff’s current and voltage laws, mesh and nodal analysis, Thévenin, Norton and maximum power transfer theorems. Prerequisites: MTH 105 or equivalent.

IET 293 AC Circuit Analysis 3(2-2) F
Introductory ac circuit analysis including sinusoidal signals, phasors, series and parallel ac networks, mesh and nodal analysis, network theorems, power, triangle, power factor, and resonance. Prerequisites: IET 292; MTH 130 or equivalent.

IET 294 Residential Electrical Wiring 3(2-2) D
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) D

IET 326 Manufacturing Methods Analysis 3(3-0) D
Study of methods, materials, tools and equipment for optimizing production operations.

IET 327 Industrial Safety 3(3-0) F, Sp
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) F, Sp
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) F, Sp
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) Sp
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) F
Study of mechanisms with graphical and analytical analysis of displacement, velocity, acceleration, motion, gearing, gear trains, linkages, and cams. Prerequisite: MTH 106, MTH 108, or MTH 130.

IET 351 Dynamics 3(3-0) F
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; PHY 175 or PHY 130; PHY 170.

IET 352 Fluid Mechanics 3(3-0) Sp
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, PHY 175; or PHY 130, PHY 170.

IET 354 Descriptive Geometry 3(2-2) F
Instruction and exercises emphasizing the space relationships of points, lines, planes, and solids. Prerequisite: IET 154 or departmental permission.

IET 356 Thermodynamics 3(3-0) F
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) F, Sp
Modern house planning resulting in a complete set of plans and specifications.

IET 358 Light Commercial Architectural Graphics 3(2-2) D
Development of the architectural drawing techniques, basic construction methods and materials, details, and planning for light commercial building. Prerequisite: IET 357.

IET 359 Computer-Aided Drafting 3(2-2) F, Sp
Development and production of engineering and technical drawings via computer systems and specialized computer-aided drafting software packages; introduction to basic solid object modeling. Prerequisites: IET 116, IET 154; or departmental permission.

IET 361 Construction Technology 3(1-4) Sp
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) D
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) D
A comprehensive study of construction building code enforcement. Topics will include the permit process, inspection process, and the legal aspects of building code enforcement. Prerequisites: IET 361 or permission of instructor.

IET 365 Plastics Technology 3(2-2) F, Sp
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) D
Comprehensive study of the International Building Codes. Topics include International Building, Electrical, Plumbing, Mechanical, and Fire Codes. Prerequisite: IET 361 or permission of instructor.

IET 368 International Residential Code 3(3-0) D
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. Prerequisite: IET 361 or permission of instructor.

IET 375 Robotics 3(2-2)
Basic study of robotics including components, programming, and industrial applications. Prerequisite: IET 291 or IET 292, or permission of instructor.

IET 376 Metal Processing I 3(1-4) D
A study of fundamental machine tool and foundry processes. Prerequisite: IET 170 or departmental permission.

IET 377 Numerical Control Programming 3(3-0) D
Processes and techniques to produce and use programs for numerically controlled machines including manual and microprocessor methods.

IET 379 Mechanics of Materials 3(3-0) D
Introduction to methods of determining the internal stresses and deflections of basic load-carrying members of construction and machine applications. Prerequisites: PHY 145, PHY 175; or PHY 130, PHY 170.

IET 382 Vehicle Control Systems 3(2-2) F
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) F, Sp
Design, construction, operation, and service procedures involved in both reciprocating and rotary engine applications.

IET 388 Automotive Power Transmission 3(2-2) F
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) F
A comprehensive study of discrete devices and circuits, including diodes, transistors, single and multistage amplifiers, frequency response, and integrated operational amplifiers. Prerequisite: IET 292.
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<th>Course Code</th>
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<td>Linear Electronics</td>
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<td>IET 394</td>
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<td>IET 397</td>
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<td>IET 426</td>
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<tr>
<td>IET 527</td>
<td>Industrial Safety Management 3(3-0) F</td>
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Interpersonal and Public Communication (IPC)

The complete description of Interpersonal and Public Communication is found in the Department of Communication and Dramatic Arts in the College of Communication & Fine Arts.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: IPC 365, 461.

IPC 195 Intercultural Communication 3(3-0), F, Sp
Content focuses on how values, attitudes and beliefs influence communication among people from different cultural backgrounds.

IPC 251 Foundations of Communication Theory 3(3-0), F, Sp
Basic theories pertaining to spoken symbolic interaction, focusing mainly on the psychological and sociological aspects of interpersonal communication and public address.

IPC 255 Special Topics in Interpersonal Public Communication 1-6(Spec), D
Varied topics of current interest; listed in the Schedule of Classes.

IPC 264 Organizational Communication 3(3-0), F
Current communication theories and practices in the modern formal organization. Especially recommended for students on preprofessional curricula.

IPC 267 Introduction to Debate 3(3-0), F, Sp
Prepares students without experience to gain understanding of theory and practice of debate. Recommended for prelaw, prebusiness, urban government students, and teachers.

IPC 269 Pracitum in Debate/Forensics 2-8(Spec), F, Sp
Opportunities for intensive research on topics in debate and various forms of forensics for students in the University forensics program. Prerequisite: permission of instructor.

IPC 301 Survey of Research in Speech Communication 3(3-0), F, Sp
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 IPC 251.

IPC 353 Communication in Small Groups 3(3-0), F, Sp
Theories and application of the methods surrounding small-group interaction processes.

IPC 357 Public Speaking 3(3-0), F, Sp
Theories and techniques for creating public speeches. Designed for students who seek to improve public-speaking skills.

IPC 361 Dynamics of Interpersonal Communication 3(3-0), F, Sp
Assists the student in understanding the interpersonal communication process and in analyzing barriers to its effectiveness.

IPC 362 Male-Female Communication 3(3-0), F, Sp
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 362. Credit may not be earned in more than one of these courses.

IPC 363 Principles and Types of Interviewing 3(3-0), F, Sp
Study of establishing and achieving communication goals in a variety of formalized interviewing contexts. Emphasis given to question development and interviewing skills.

IPC 364 Communication in the Professional Environment 3(3-0)
F
Focuses on the practical application of organizational theory and communication strategies in professional settings. Prerequisite: IPC 254 or permission of instructor.

IPC 365 Persuasion 3(3-0), Sp
Application of theories and principles underlying attitude change.

IPC 367 Nonverbal Communication 3(3-0), F
Examines the non-language dimensions of communication in several social settings: dyadic, small group, crosscultural, and subcultural.

IPC 401 Capstone in Communication 3(3-0), F, Sp
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: IPC 251, IPC 301 with a grade of C or better; IPC 253, IPC 357, and IPC 361 plus 9 more hours toward the IPC major.

IPC 461 Communication in Leadership 3(3-0), F, Sp
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 IPC 251, IPC 301, or permission of instructor.

IPC 464 Communication Internship 1-6(Spec), F, Sp, Su
Designed to apply a variety of classroom concepts and skills within a supervised organizational setting. Prerequisite: prior written approval of IPC internship coordinator. Limited to junior and senior IPC majors and minors.

IPC 468 Theories of Interpersonal Communication 3(3-0), Sp
Survey of interpersonal communication theories. Focuses on current issues and concepts in the area of interpersonal relationships. Prerequisites: IPC 251, IPC 301, with a grade of C (2.0) or better; IPC 361; or permission of instructor.

IPC 490 Independent Study Each 1-4(Spec), F, Sp, Su
Student-initiated study guided by faculty member or faculty committee. Undergraduate prerequisites: an overall B average; permission of advisor and instructor (at completion of form).

IPC 495 Communication Facilitation 2-6(Spec), F, Sp
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.
IPR 555 Special Topics in Interpersonal and Public Communication 1-9(Spec) D
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 IPC 251, IPC 301; or permission of instructor.

IPR 556 Historical Backgrounds of Communication Theory 3(3-0) D
Theories of rhetoric and communication from the classical, medieval, and Renaissance periods studied in a comprehensive historical philosophical survey. Prerequisites: grades of C (2.0) or better in IPC 251, IPC 301; or permission of instructor.

IPR 560 Communication and Change: The Diffusion of Ideas and Information 3(3-0) Sp
Research and methods of communicating changes into existing social systems. Prerequisites: grades of C (2.0) or better in IPC 251, IPC 301; or permission of instructor.

IPR 561 Communication in Conflict Management 3(3-0) F, Sp
Theory, research, and practical application of managing conflicts through communication. Focuses on conflict between people in the contexts of family, group, and organizations. Prerequisites: grades of C (2.0) or better in IPC 251, IPC 301; or permission of instructor.

IPR 562 Family Communication 3(3-0) F, Sp
The study of verbal and nonverbal communication processes, patterns, and problems in the family. The uniqueness of the family system as a communication context is emphasized. Prerequisites: grades of C (2.0) or better in IPC 251, IPC 301; or permission of instructor.

IPR 565 Communication Training in Organizations 3(3-0) D
This course examines the role of training in improving communication in organizations. The course discusses the design, development, implementation, and evaluation of organizational communication training. Prerequisites: grades of C (2.0) or better in IPC 251, IPC 301; or permission of instructor.

IPR 569 Communication in the Classroom 3(3-0) F, Sp
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, or permission of the instructor.

IPR 594 Directing Speech Activities 3(3-0) D
Designed to provide the student or the professional teacher with the skills needed to coach and administer forensic activities on the high school level. Prerequisites: grades of C (2.0) or better in IPC 251, IPC 301; or permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

IPC 602 Qualitative Research Methods 3(3-0) Sp (Odd Year)

IPC 619 Continuing Registration for Final Research Project 1(1-0)

IPC 660 Seminar in Interpersonal Communication 3-9(Spec) D

IPC 661 Contemporary Communication Theory 3(3-0) F

IPC 662 Advanced Persuasion 3(3-0) D

IPC 664 Advanced Organizational Communication 3(3-0) Sp

IPC 665 Seminar in Communication and Negotiation in Employee Relations 3(3-0) D

IPC 667 Advanced Studies in Intercultural Communication 3(3-0) D

IPC 668 Seminar in Interpersonal Communication 3(3-0) F

IPC 750 Rhetorical Criticism 3(3-0) Sp (Even Year)

IPC 764 Communication Internship 1-6(Spec) F, Sp, Su

IPC 790 Advanced Independent Study 1-4(Spec) F, Sp, Su

IPC 798 Thesis 1-6(Spec) F, Sp, Su

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: IPC 555, 660, 764, 790.

Integrative Public Relations (IPR)
The complete description of Integrative Public Relations is found under Interdepartmental and Interdisciplinary majors and minors.

IPR 101 Foundations of Integrative Public Relations 1-3(1-0)
Introduction to concepts, activities, responsibilities and career directions of public relations from an interdisciplinary perspective.

IPR 490 Independent Study in Integrative Public Relations 1-6(Spec) F, Sp, Su
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; IPC 264, IPC 357; JRN 202, JRN 350, JRN 460; completion of 56 credit hours or permission of instructor. Prior written approval of the designated internship director. Open only to signed Integrative Public Relations majors.

International Program Studies (IPS)
The complete description of International Program is found under Office of International Education in the General Information Section of this Bulletin.

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 juniors and seniors. 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 seniors and graduate students. 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)

ITC 111 Information Technology Programming II 3(3-0)
Programming for Information Technology. User interfaces, databases, component software. Language used is Visual Basic. Prerequisite: CPS 110.

ITC 290 Computer Hardware Concepts, Installation, Configuration, and Support 3(3-0)
Basic computer organization, overview of machine and assembly language, properties of peripheral devices, processes management, physical and virtual memory management techniques, resource allocation and protection. Prerequisites: ITC 111 or CPS 181.

ITC 291 Computer Software Concepts, Installation, Configuration, and Support 3(3-0)
User view of system resources, file systems and operations, start-up, configuration files, software installation, dependencies, deinstallation, simple scripts, batch files, and account management basics. Prerequisite: ITC 290.

ITC 320 - Web-Based Applications 3(3-0)
An introduction to web-based applications using an object-oriented programming language. This course will cover the creation of applet and application programs. Programming projects will be required. Prerequisite: ITC 290.

ITC 341 - Introduction to Databases and Applications 3(3-0)
Database concepts, data models, relational databases, query language SQL, simple database programming. Using commercial database management systems to design and develop databases for various applications. Prerequisites: ITC 111 or CPS 181; ITC 291.

ITC 365 - Introduction to Data Communications and Computer Networks 3(3-0)
Introduction to data communications and computer networks concepts with hands-on projects and implementations. PC and workstation-based computer networks are designed and implemented. Prerequisite: ITC 290.

ITC 441 - Database Administration 3(3-0)
Logical and physical schema; database objects; server installation, database creation; user accounts, authorization; backup, recovery; performance measurements and tuning; networking and client installation and configuration. Prerequisites: ITC 341, ITC 365; STA 282 or STA 382.

ITC 465 - Network Administration and Security 3(3-0)
Local area network and internet; Unix networks; Windows NT networks; administration and security issues of computer networks; integration of Unix and Windows NT networks. Prerequisites: ITC 365; STA 282 or STA 382.

ITC 495 - Senior Internship 1-3(Spec)
Supervised work experience in information technology. Up to 3 hours taken may count toward the IT major requirement. CR/NC only. Prerequisites: senior standing in information technology; written permission of department chairperson.

ITC 582 Multimedia Systems 3(3-0)
Characteristics and design approaches for multimedia systems. Studies of current and emerging technologies that influence system design. Performance evaluation. Prerequisites: CPS 482 or permission of instructor.
Japanese  
(JPN)  
The complete description of Japanese is found in the Department of Foreign Languages and Cultures in the College of Humanities and Social & Behavioral Sciences.  
Descriptions of courses approved for the University Program appear in italic type.  
Courses on the 100 and 200 level are supplemented by laboratory work.  

JPN 101 Elementary Japanese I 4(4-0)  
Described for students who have had no Japanese. Basic language skills. Introduction to the culture of Japan. Students who have completed more than one year of Japanese in secondary school will not receive credit. (Group IV-B)  

JPN 102 Elementary Japanese II 4(4-0)  
Basic language skills. Continuation of JPN 101. Prerequisite: JPN 101 or equivalent. (Group IV-B)  

JPN 110 Study Abroad 1-8(Spec)  
Intended for beginning students studying abroad. Prerequisite: permission of department chairperson.  

JPN 201 Intermediate Japanese I 4(4-0)  
Further development of all language and reading skills; a review of grammar, and exploration of Japanese culture. Prerequisite: JPN 102 or equivalent. (Group IV-B)  

JPN 202 Intermediate Japanese II 4(4-0)  
Designed to develop fluency in reading Japanese; cultural emphasis. Prerequisite: JPN 201 or equivalent. (Group IV-B)  

JPN 210 Study Abroad 1-12(Spec)  
Intended for intermediate students studying abroad. Prerequisites: JPN 102; permission of department chairperson.  

JPN 310 Study Abroad 1-12(Spec)  
Intended for advanced students studying abroad. Prerequisites: JPN 202 or equivalent; permission of department chairperson.  

JPN 410 Study Abroad 1-12(Spec)  
Intended for advanced students studying abroad. Prerequisites: 12 or more hours on 300 level; permission of department chairperson.  

Journalism  
(JRN)  
The complete description of the Department of Journalism is found in the College of Communication & Fine Arts.  
Descriptions of courses approved for the University Program appear in italic type.  

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: JRN 350, 670.  

CORE COURSES  

JRN 101 Mass Communications in Contemporary Society 3(3-0) F, Sp  
The influence and understanding of mass communications with emphasis on the print media. (Group III-B)  

JRN 202 Writing for the Mass Media 3(3-0) F, Sp  
Writing for the print media. Prerequisites: ENG 101 (C or better)  

JRN 203 Information Gathering for the Mass Media 3(3-0) F, Sp  
Acquiring, comprehending, analyzing, synthesizing, and evaluating information by solving journalistic problems in a variety of cases and from multiple perspectives. Prerequisite or corequisite: JRN 202.  

JRN 301 History of the American Mass Media 3(3-0) D  
Origins of American mass media and growth from the early Colonial period to present, including news, opinion, advertising, public relations and propaganda.  

JRN 302 Introduction to Graphics and Visual Communication 3(3-0) F, Sp  
Principles and techniques of publication/advertising graphics and visual communication, including typography and the printing process.  

JRN 404 Law of Mass Communication 3(3-0) Sp  
Principles and case studies. Prerequisites: JRN 101; junior standing.  

JRN 500 Current Issues in Mass Communication 3(3-0) F, Sp  
Examination of the role of mass communication in society through the exploration of issues, ethics, trends and decision-making processes. Prerequisite: senior standing or permission of instructor.  

GENERAL JOURNALISM  

JRN 330 Magazine Journalism 3(3-0) D  
Survey of consumer magazines, company publications, business magazines and other specialized magazines. Editorial, advertising, circulation and business operations in magazine industry.  

JRN 372 International and Cross-cultural Mass Communication 3(3-0) F, Sp  
Analysis of indigenous and international media systems and their relationship to social, economic and political institutions. (Group IV-A)  

JRN 380 Racial Diversity: Mass Media's Role 3(3-0) F, Sp  
Critical, historical examination of African-American, Hispanic, Asian, Native American and gender stereotypes in mass media. Self-portrayals by these groups using mass media. Identical to WST 380. Credit may not be earned in more than one of these courses. (Group IV-C)  

JRN 409 Independent Study 1-3(Spec) F, Sp, Su  
Individual study under faculty direction. Prerequisite: senior standing or permission of instructor.  

JRN 539 - General Journalism Internship 1-4(Spec) F, Sp, Su  
 Journalism experience under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing and permission of instructor.  

JRN 580 Newspaper Management 3(3-0) D  
Management of the newspaper including advertising, budgeting, circulation, economics, labor, personnel, promotion, and research on social pressures affecting news values and content. Prerequisites: JRN 101, JRN 301, JRN 404; or permission of instructor.  

NEWSEDITIONAL  

JRN 312 Reporting 3(3-0) F, Sp  
Skills in gathering, evaluating and writing news. Prerequisites: JRN 202; ENG 201.  

JRN 315 Editing 3(3-0) F, Sp  
Copy editing, headline writing and design and layout. Prerequisites: JRN 202, JRN 302.  

JRN 318 Radio and Television News 3(3-0) D  
Techniques and principles of writing broadcast news copy. Identical to BCA 318. Credit may not be earned in more than one of these courses. Prerequisite: JRN 202.  

JRN 415 The Editorial Pages 3(3-0) D  
Techniques of opinion expression, current affairs, resource materials, policy, content and format of opinion pages. Prerequisite: JRN 312 or permission of instructor.  

JRN 417 Sports Reporting 3(3-0) D  
Critical examination and reporting of sports events. Prerequisites: JRN 315 or permission of instructor.  

JRN 418 Practicum 3(Spec) D  
Practical experience in writing and producing newsletters, magazine spreads, brochures and other publications, using desktop publishing techniques. Prerequisites: JRN 202, JRN 302.  

JRN 430 Magazine and Feature Writing 3(3-0) Sp  
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 516 Public Affairs Reporting 3(3-0) F  
Coverage of government and other public issues. Prerequisite: JRN 312.  

JRN 517 Science and Environmental Reporting 3(3-0) D  
Reporting on science and environmental controversy. Science and Technology Studies perspective is emphasized. Prerequisites: JRN 312 or permission of instructor.  

JRN 519 News Editorial Internship 1-4(Spec) F, Sp, Su  
Experience at news organizations under professional and faculty supervision. May be applied toward the journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing; and permission of instructor.  

PHOTOJOURNALISM  

JRN 220 Basic Media Photography 3(3-0) F, Sp  
Camera operation, producing and processing of photographs for media use.  

JRN 320 Photo Editing 3(3-0) F, Sp  
Use and preparation of photographs for the print media. Prerequisite: JRN 220.  

JRN 420 Photography Studio Techniques 3(3-0) F  
Use of camera in a controlled environment, studio lighting and basic studio operation. Prerequisite: JRN 220.  

JRN 421 Color News Photography 3(3-0) D  
Use and production of color transparencies, prints; basic considerations of media use. Prerequisites: JRN 220, JRN 320; or permission of instructor.  

JRN 422 The Photographic Process 3(3-0) Sp  
Advanced camera operation: light, lighting, optics, and the chemistry of the silver halide process. Prerequisites: JRN 220 or permission of instructor.  

JRN 520 Independent Study in Photography 3(3-0) F, Sp, Su  
Advanced experience and individual instruction in photography. Prerequisites: JRN 220, JRN 320; or permission of instructor.
### Special Studies
- JRN 521 Seminar in News Photography 3(3-0) Sp
  - Field experience of the photographer as a means of communicating information, ideas, and opinions.
- JRN 529 - Photojournalism Internship 1-4(Spec) F, Sp, Su
  - Photojournalism experience under professional and faculty supervision. May be applied to journalism major or minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

### Teaching
- JRN 342 Teaching High School Journalism 3(3-0) D
  - Content and methods of high school journalism courses.
- JRN 542 School Publication Problems 3(3-0) D
  - An intensive study of school publications.

### Public Relations
- JRN 350 Public Relations Principles and Practices 3(3-0) F, Sp
  - Concepts and theories of public relations as a management function as practiced by corporations, non-profits and other organizations. Role of the practitioner stressed.
- JRN 450 Public Relations Writing 3(3-0) F, Sp
  - Creating and editing written materials for a variety of public relations purposes and a variety of media. Prerequisites: JRN 202, JRN 350; or permission of instructor.
- JRN 551 Case Studies in Public Relations 3(3-0) F, Sp
  - Examination of historic and contemporary public relations problems and programs with emphasis on research, planning and problem-solving skills in public relations practice. Prerequisites: JRN 350 or permission of instructor.
- JRN 556 Public Relations Seminar 3(3-0) F, Sp
  - Emphasis on interaction of public relations with society, with individual case studies. Prerequisites: JRN 350 or permission of the instructor.
- JRN 559 - Public Relations Internship 1-4(Spec) F, Sp, Su
  - Experience in public relations under professional and supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

### Advertising
- JRN 360 Advertising Principles 3(3-0) F, Sp
  - 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) F, Sp
  - Evaluation of media in relationship to marketing objectives. Selection of media space and time and decision-making in development of media schedules. Prerequisite: JRN 360.
- JRN 465 Advertising Copy and Design 3(3-0) F, Sp
  - 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 365.
- JRN 466 Advertising Campaigns 3(3-0) D
- JRN 569 - Advertising Internship 1-4(Spec) F, Sp, Su
  - Experience in advertising under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing and permission of instructor.

### Advanced Graduate Courses
- For 600 and 700 level course descriptions consult the current Graduate Bulletin.
- JRN 607 Seminar in Journalism Law 3(3-0) D
- JRN 670 Public Relations Management 3(3-0) D
- JRN 671 Public Relations Problems 3(3-0) D
- JRN 680 Graduate Seminar 3(3-0) D
- JRN 686 Methods and Materials in Teaching Journalism 3(3-0) D
- JRN 770 Theory and Research Methods 3(3-0) D
- JRN 780 Introduction to Journalism Research 3(3-0)
- JRN 781 Readings in Journalism 2(2-0) D
- JRN 785 Selected Problems in Journalism 1-6(Spec) D
- JRN 787 Public Relations Internship 3-5(Spec) D
- JRN 798 Thesis 1-6(Spec) F, Sp, Su

### Special Studies
- JRN 197 Special Studies 1-3(Spec) D
  - Appropriate title to be listed when offered.
- JRN 297 Special Studies 1-6(Spec) D
  - Appropriate title to be listed when offered.
- JRN 397 Special Studies 1-6(Spec) D
  - Appropriate title to be listed when offered.
- JRN 497 Special Studies 1-6(Spec) D
  - Appropriate title to be listed when offered.
- JRN 597 Special Studies 1-6(Spec) D
  - Appropriate title to be listed when offered.
- JRN 697 Special Studies 1-6(Spec) D
  - Appropriate title to be listed when offered.

### Credit Limitation
Courses in the Department that are subject to graduate limitation under the policy covering unspecified content or variable credit are: JRN 519, 520, 529, 539, 559, 569, 597, 680, 697, 781, 785, 787.

### Liberal Arts
(LAR)
- LAR 080 Basic ESL for International Students (variable credit)
  - For non-native speakers of English, this course includes all basic skill areas of English as a Second Language: grammar, writing, reading, and conversation, but focuses primarily on speaking/listening. CR/NC only.
- LAR 145 - Racism and Diversity in America 3(3-0)
  - Interdisciplinary course examines historical and economic causes of racism and ways of achieving a just society. (Group IV-C)
- LAR 197 Special Studies in Liberal Arts 1-12(Spec)
  - Primarily for freshmen or sophomores. Prerequisite: permission of instructor.
- LAR 397 Special Studies in Liberal Arts 1-12(Spec)
  - Primarily for juniors and seniors. Prerequisite: permission of instructor.
- LAR 597 Special Studies in Liberal Arts 1-12(Spec)
  - Primarily for graduate students. Prerequisite: permission of instructor.

### Latin
(LAT)
- The complete description of Latin is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.
- LAT 101 Elementary Latin I 4(4-0)
  - Introduction to Latin through the study of grammar, vocabulary, and readings about Roman history and everyday life or from Latin literature. (Group IV-B)
- LAT 102 Elementary Latin II 4(4-0)
  - Continuation of LAT 101. Prerequisite: LAT 101 or permission of instructor.
- LAT 201 Intermediate Latin I 4(4-0)
  - Translating typical classical Latin prose. Prerequisite: LAT 102 or permission of instructor.
- LAT 202 Intermediate Latin II 4(4-0)
  - Continuation of LAT 201. Prerequisite: LAT 201 or permission of instructor.

### Library
(LIB)
- The complete description of Library is found in the Department of Teacher Education and Professional Development in the College of Education & Human Services.
- LIB 197 Introduction to Library and Information Research 1(1-0) F, Sp, Su
  - Practical skills needed to conduct library and information research. Includes locating information in electronic and print sources, defining researchable topics, as well as evaluating, citing, and using information. Not open to students with LMT 530.
- LIB 397 Special Topics in Library and Information Research 1-3(Spec)
  - Students will learn in-depth library and information research skills within specialized or discipline-related subject areas. Topics vary by semester. Prerequisites: at least Junior standing or permission of instructor.

### Library, Media, and Technology (LMT)
- LMT 502 Cataloging and Classification 3(3-0) D
  - Principles of materials organization, cataloging, classification, and allied processes in the school library/media center. Practice in cataloging and classification of print materials.
- LMT 530 Reference Materials 3(3-0) D
  - 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) D
Group study and analysis of specific problems in librarianship. Lectures, discussions, research, consultants, and other procedures also are utilized. May be taken more than once. Prerequisite: permission of instructor.

LMT 580 Literature for Young Adults 3(3-0) D
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) D
Surveys current and professional 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 600 and 700 level course descriptions consult the current Graduate Bulletin.

LMT 602 Special Problems in Library Media 2(2-0) D
LMT 603 Evaluation and Acquisition of Instructional Materials 3(3-0) D
LMT 612 Instructional Materials Centers and Systems 3(3-0) D
LMT 625 Library Media Skill Instruction 3(3-0) D
LMT 630 Educational Applications of Microcomputers 3(3-0) D
LMT 635 Seminar in Current Trends in School Media Services 2(2-0) D
LMT 650 Information Technology in School Media Centers 3(3-0) D
LMT 699 Internship In Library Media 1-6(Spec)

Credit Limitation. Courses in library science that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: LMT 550, 602, 635, 699.

Marine Science (MAR)
The complete description of the Department of Biology is found in the College of Science & Technology.

Summer courses taken with affiliation agreement with the University of Southern Mississippi’s Gulf Coast Research Laboratory in Ocean Springs, MS.

MAR 301 Marine Science I: Marine Biology 5(Spec)
An introduction to marine biology with emphasis on local fauna and flora. Prerequisites: general zoology; general botany.

MAR 503 Marine Invertebrate Zoology 6(Spec)
Structure, classification, phylogenetic relationships, larval development and physiology of marine invertebrates. Prerequisites: BIO 101, BIO 203, BIO 208, BIO 218.

MAR 590 Special Problems in Marine Science 1-6 (as determined by program director)
Prerequisites: permission of instructor.

Master of Business Administration (MBA)

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 or equivalent and prior knowledge of presentation graphics software; admission to the MBA program OR both graduate status; permission of the MBA director.

MBA 502 Database Applications in Business 1(1-0)
Application of a database management program to the solution of common business problems including sales and inventory management for preparing information to support decision making. Course may not be included on any graduate degree program. Prerequisites: computer literacy as demonstrated by BIS 104, CPS 100 or equivalent and prior knowledge of database 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) D
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) D
Introduces use of financial accounting information 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) D
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) D
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) D
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) D
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) D
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) D
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 graduate status and permission of the MBA director.

For 600 level course descriptions consult the current Graduate Bulletin.

MBA 609 Information Systems Management 2(2-0) D
MBA 618 Continuing Registration for Final Research Project 1(1-0)
MBA 619 Accounting Information for Managers 2(2-0) D
MBA 629 Managing Behavioral Change 2(2-0) D
MBA 639 Quantitative Applications for Managers 2(2-0) D
MBA 649 Marketing Management 2(2-0) D
MBA 659 Managing in a Global Economy 2(2-0) D
MBA 669 Financial Decision-Making 2(2-0) D
MBA 679 Economic Analysis for Managers 2(2-0) D
MBA 689 Strategic Management 2(2-0) D
MBA 691 Organization Change Management 2(2-0) D
MBA 692 Management Consulting: Practices 2(2-0) D
MBA 693 Management Consulting: Diagnosis 2(2-0) D
MBA 694 Management Consulting: Implementation 2(2-0) D
MBA 697 Special Topics 1-6(Spec)
MBA 699 The MBA Project 4(4-0) D

Management (MGT)
The complete description of the Department of Management is found in the College of Business Administration.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: MGT 312, 320, 333, 335, 340, 348, 355, 357, 365, 490, 495.

MGT 210 Effective Supervision: Principles and Practices 3(3-0) D
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) F, Sp
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) F, Sp
Application of concepts and tools in purchasing, production, and distribution of goods and services along an integrated supply chain. Identical to MKT 303. Credit cannot be earned in more than one of these courses. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MGT 258. Co-requisites: BUS 301, FIN 302, MGT 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) F, Sp
Introduction to the concepts, techniques, and processes of management as they pertain to business and other organizations. Prerequisite: 56 semester hours completed.

MGT 320 Human Resource Management 3(3-0) F, Sp
Examines process of providing and maintaining productive human resources in an organization. Includes recruitment, selection, training, performance appraisal, compensation, labor relations, and health and safety. Prerequisites: 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) F, Sp
Introduction to concepts, models, and techniques in Purchasing Manage- ment, 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.

MGT 335 Introduction to Management Science 3(3-0) F, Sp
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 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 340 Production/Operations Management 3(3-0) F, Sp
An introduction to production and operations management concepts, tools and techniques as applied in service and manufacturing organizations. Prereq- uisites: 56 semester hours completed.

MGT 348 Dynamics of Organizational Behavior 3(3-0) F, Sp
Integrative theory of organizational behavior. Human motivation influenced by leadership, the organization itself, and its social environment. Prerequisites: 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) F, Sp
Applications-oriented class exposing students to many of the common communication-related situations they will soon face as managers. Prerequisites: MGT 312; MGT 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) D
Opportunities, challenges, and problems of women in pursuing a career in management. Considers changing roles, legal aspects, differences and effect on male-female relationships. Prerequisites: MGT 312 or permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 365 International Business 3(3-0) F, Sp
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.

MGT 380 Field Studies 3(3-0) D
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 1-6(Spec) D
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 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. Equivalent 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; signed major in Entrepreneurship.

MGT 442 Computer Applications for Production Operations Management 3(3-0) F
Simulation modeling and application of existing computer software for production and operations decisions. Prerequisite: 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) D
Theory, procedures, and methodology for developing and administering compensation systems. Covers job evaluation methods, wage and salary structure development, incentive pay systems, and benefits administration. Prerequisites: 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) D
Relationships between organized labor and management analyzed in the light of contemporary conditions. Recommended 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) D
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 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, ECO 372, FIN 573, and MKT 660; 86 semester hours completed and admission to the Professional Business Studies or listed on signed major or minor.

MGT 484 Human Resource Training and Development 3(3-0) D
This course examines theories, concepts, and process of human resource training and development in modern organizations to meet current and future needs. Prerequisites: MGT 312, MGT 320; 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) D
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. Prerequisite: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 492 Practicum in Small Business 3(Spec) D
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. Prerequisite: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 493 Global Management Strategy 3(3-0) F, Sp
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.

MGT 499 Integrated Capstone - Strategic Management 3(3-0) F, Sp
An applications-oriented capstone course exposing students to many of the common communication-related situations they will soon face as managers. Prerequisites: MGT 312, MGT 320; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 500 Comparative Labor Relations Systems 3(3-0) D
Comparative analysis of the history, structure, institutional arrangements, and philosophy of the labor relations systems of several countries in advanced stages of industrialization. Prerequisites: MGT 320 or permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.
MKT 516 Management and Women 3(3-0) D
Enables both male and female students to understand the opportunities, challenges, and problems confronting women in their pursuit of careers in management, and to manage more effectively. Prerequisites: MGT 312 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 520 Management in Health Care Facilities 3(3-0) D
Management problems and practices in health care facilities. Prerequisites: MGT 312; MSA 650 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 533 Purchasing Strategy 3(3-0) D
An overview and analysis of purchasing and supplier-base development for both domestic and global competitive environments. Prerequisites: MGT 333 or equivalent and admission to Professional Business Studies or listed on signed major or minor or permission of the MBA Director.

MKT 542 Inventory and Materials Management 3(3-0) D
The study of the concepts, models, and systems for material management and production planning. Prerequisites: MGT 340; STA 282 or an equivalent statistics course; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or graduate standing.

MKT 543 Management and Control of Quality 3(3-0) D
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 340; STA 282 or STA 382; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or graduate standing.

MKT 545 Operations Strategy 3(3-0) D
The treatment of strategic planning and competitive issues in operations management in a domestic and global environment. Prerequisites: MGT 340; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 597 Special Topics 1-6(Spec) D
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 or graduate standing. For 600 and 700 level course descriptions consult the current Graduate Bulletin.

MGT 600 Principles of Management Science/Management Information Systems 3(3-0) D
MGT 633 Human Resource Management 2(2-0) D
MGT 635 Employee Compensation Practice and Process 2(2-0) D
MGT 636 Seminar in Labor Relations 2(2-0) D
MGT 637 Personnel Selection and Evaluation 2(2-0) D
MGT 643 Personnel Management 3(3-0) D
MGT 645 Personnel Compensation Practice and Process 3(3-0) D
MGT 646 Labor Relations Issues 3(3-0) D
MGT 647 Employee Selection and Evaluation 3(3-0) D
MGT 649 Seminar in Organizational Development 3(3-0) D
MGT 657 International Management 2(2-0) D
MGT 667 International Business 3(3-0) D
MGT 791 Independent Studies 1-6(Spec) D
MGT 797 Special Topics 3-6(Spec) D
MGT 798 Thesis 1-6(Spec) D
Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: MGT 597, 791 and 797.

Marketing (MKT)
The complete description of the Department of Marketing and Hospitality Services Administration is found in the College of Business Administration.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: MKT 310, 560

MKT 151 Marketing and Society 3(3-0) D
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) D
An overview of merchandising systems and procedures as they relate to organizational structure, product planning, and inventory control.

MKT 221 Marketing Strategies for Entrepreneurs 3(3-0) D
Marketing for small businesses; 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) D
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) F, Sp
An introduction to the marketing environment, the marketing mix; marketing management; and the place of marketing in society. Prerequisite: ECO 201; 56 semester hours completed.

MKT 303 Integrated Supply Chain Management 3(3-0) F, Sp
Application of concepts and tools in purchasing, production and distribution of goods and services along an integrated supply chain in organizations. Identical to MKT 303. Credit cannot be earned in more than one of these courses. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MKT 258. Co-requisites: BUS 301, FIN 302, MKT 304.

MKT 304 Integrated Marketing Management 3(3-0) F, Sp
An introduction to marketing and how it provides customer and market information to the organization so strategic and tactical decisions are customer-focused and market-driven. Prerequisites: Tier 2 Admission to Professional Business Studies; ACC 255, BIS 255, MKT 258; co-requisites: BUS 301, MGT/ MKT 303, FIN 302.

MKT 305 Buyer Behavior 3(3-0) F, Sp
Characteristics of consumers affecting the decision process in buying and the marketing implications. Prerequisites: MKT 300, 56 semester hours completed, and admission to Professional Business Study or listed on signed major or minor.

MKT 310 Marketing Communications 3(3-0) F, Sp
An overview of advertising, personal selling and sales promotion, and other techniques that an organization would use to communicate with its target market. Prerequisites: MKT 300; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 315 Advertising Media 3(3-0) D
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) F, Sp
Functions of a retail establishment are examined. Significant developments taking place in the major environments of retailers--social, economic, technologi- cal, and legal. Prerequisites: MKT 300; 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) D
Current problems in merchandising which include technological aspects, inventory valuation and reporting procedures, stock planning, and product mix considerations. Prerequisites: MKT 320; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 330 Marketing Channels 3(3-0) F, Sp
Institutions, physical flows, behavioral and economic relationships comprising channel systems in the marketing environment. Prerequisites: MKT 300; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 340 Personal Selling 3(3-0) D
Analysis of the field of personal selling as a vital element of the promotional efforts of the firm. Prerequisites: MKT 300; 56 semester hours completed; admission to Professional Business Studies or listed on a signed major or minor; or with approval from the Office of Undergraduate Business Studies.

MKT 341 Services Marketing 3(3-0) D
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; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 350 Marketing Analysis 3(3-0) F, Sp
Analysis of marketing data: marketing research, statistics, marketing cost/revenue analysis and sales and market forecasting. Prerequisites: MKT 300; STA 282; ACC 202; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 360 Electronic Commerce and Marketing Strategy 3(3-0) D
Basic concepts and tools for understanding and exploring market opportu- nities and marketing strategies associated with global electronic commerce. Prerequisites: MKT 300; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 390 Field Studies 3(3-0) D
Activities which may include industrial visitations and work study in conference with supervision of cooperating organization, professor, and student. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.
MKT 397 Special Topics 1-6(Spec) D
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) F, Sp
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, 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) D
Analytical study of the use of promotional tools in marketing strategy. Direct marketing principles and practices, planning, implementation and control issues are emphasized. Prerequisites: MKT 300, MKT 310; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 422 Cooperative/Internship in Retailing 3-6(Spec) D
Full time work experience under the supervision of the department and participating employer. Prerequisites: permission of instructor; MKT 320; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 425 Retail Strategy 3(3-0) D
Development of strategic methods for addressing retail problems. Problem solving orientation within the retail organizational setting. Prerequisites: MKT 320, MKT 422; or permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 431 Logistics Operations 3(3-0)
Operational issues, management techniques and technology applied to distribution operations. Focus is on the integration of logistics operations of all firms within the supply chain. Prerequisites: MKT 330; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 435 Transportation 3(3-0) D
The role of transportation systems in an economy, transport system pricing, and the management of transportation operations. Prerequisites: MKT 300; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 440 Sales Management 3(3-0) D
The organization, planning, operation and control of a field sales force from the perspective of the sales manager. Prerequisites: MKT 300; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 445 Business Marketing 3(3-0) D
Development of principles and establishment of a framework within which managerial problems involved in marketing industrial goods can be solved. Prerequisites: MKT 300, MKT 330; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 450 Marketing Research 3(3-0) D
Methodology used in gathering, recording, and analyzing marketing data to aid executives in making marketing decisions. Prerequisites: MKT 300, MKT 350, MTH 282 or equivalent; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 465 Supply Chain Management 3(3-0) F, Sp
Integration of competencies in logisticsrelated areas. Logistical policy establishment and decision-making for solving complex logistical problems that focus on global and intercompany logistics systems. Prerequisites: MKT 431 or MKT 432; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MKT 490 Internship in Marketing 1-3(Spec) D
A full time work experience occurring within a marketing organization. Detailed written report and assigned readings required. Prerequisites: permission of instructor and department chairperson; 56 semester hours completed; marketing major and completion of 6 credit hours in marketing in addition to MKT 490 admission to Professional Business Studies or listed on signed major or minor.

MKT 491 Independent Studies 1-6(Spec) D
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) D
Provides the student an opportunity to analyze the accounting, finance, marketing, management, and production systems of an ongoing small business. Identical to ACC/FIN/GMT/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 350; admission to Professional Business Studies or listed on signed major or minor.

MKT 555 Market and Sales Forecasting 3(3-0) D
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 350; admission to Professional Business Studies; senior standing; 86 semester hours completed.

MKT 560 International Marketing 3(3-0) D
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; admission to Professional Business Studies; senior standing; 86 semester hours completed.

MKT 596 Special Topics 1-6(Spec) D
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: MKT 300; admission to Professional Business Studies; senior standing; 86 semester hours completed.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

MKT 650 Marketing Research: Managerial Applications 2(2-0) D

MKT 663 Product Management 2(2-0) D

MKT 664 Promotional Strategy 2(2-0) D

MKT 665 Management of Integrated Logistic Systems 3(3-0) D

MKT 669 Seminar in Marketing Problems 2(2-0) D

MKT 791 Independent Studies 1-6(Spec) D

MKT 797 Special Topics 3-6(Spec) D

MKT 798 Thesis 1-6(Spec) D
Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: MKT 597, 791 and 797.

Middle Level Education (MLE)

MLE 381 Midtier Practicum 2(2-0)
Prerequisite: 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 HEV 100 or PSY 220.

MLE 382 Middle Level School Concept, Structures, Programs 3(3-0)
An orientation to the middle level school concept, structures, and programs. Prerequisites: admission to Teacher Education; successful completion (C+ or higher) of EDU 280 or HEV 100 or PSY 220.

MLE 383 Middle Level Education (MLE)

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, or permission of the instructor.

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, or permission of the instructor.

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; or permission of the instructor.
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; or permission of the instructor. For graduates: MLE 641, MLE 642, MLE 643; or permission of the instructor.
For 600 and 700 level course descriptions consult the current Graduate Bulletin.

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 School Curriculum 3(3-0)
MLE 687 Independent Study in Middle Level Education 1-6(Spec)
MLE 780 Master of Arts Capstone Seminar 3(0-0)

Master of Science in Administration (MSA)

For 600 level course descriptions consult the current Graduate Bulletin.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: MSA 600, 620, 634, 635, 640, 650, 660, 675, 685.

MSA 600 Administrative Research and Report Methods 3(3-0)
MSA 610 Environments in Administration 3(3-0) D
MSA 619 Continuing Registration for Final Research Project 1(1-0)
MSA 620 Effective Administration and Organizational Behavior 3(3-0) D
MSA 634 Managerial Accounting Concepts 3(3-0)
MSA 635 Financial Management 3(3-0)
MSA 640 Quantitative Applications in Administrative Decision-Making 3(3-0) D
MSA 650 Organization Theory: Strategy and Structure 3(3-0) D
MSA 660 Marketing Administration 3(3-0) D
MSA 661 Diversity and Multiculturalism in the Workplace 3(3-0)
MSA 675 Strategic Policy Administration 3(3-0) D
MSA 681 Administrative Practiceum 1-3(Spec)
MSA 685 Integrative Analysis of Administration 3(Spec)
MSA 690 Internship 1-6(Spec) D
MSA 691 Independent Study 1-2(Spec) D
MSA 696 Special Topics 3(Spec)

Military Science (MSL)

The focus of all Military Science Courses is leadership development. All courses include student work using the Army's Leadership Framework. The curriculum is fully integrated and designed to be completed in progressive order. All on-campus courses include a student-led Leadership Lab, which includes hands-on training in: rappelling, rock climbing, high-ropes course, marksmanship, water survival, orienteering, map reading, first aid, weapons, drill, squad tactics, patrolling, and team building exercises. The complete description of the Department of Military Science is found in the College of Humanities and Social & Behavioral Sciences.

MSL 101 Foundations of Officereanship 2(1-2)
Introduction to officereanship, 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. Prerequisites: none.

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 or permission of MSL Chairperson.

MSL 202 Leadership and Teamwork 3(2-2)
Continuing studies in self-development and team-building. Introduces group problem solving, planning group actions, risk management, diversity, persuasion, and the profession of arms. Prerequisites: MSL 201 or permission of MSL Chairperson.

MSL 203 Leadership and Problem Solving 4(3-2)
Planning, leading, assessing small unit actions. Studies in problem-solving, training management, Principles of War, tactics, warrior ethos. History and future of the Army. Prerequisites: MSL 101, MSL 102, MSL 201, MSL 202; or MSL 203; or permission of MSL Chairperson.

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. Prerequisites: MSL 301 or permission of MSL Chairperson.

MSL 397 Special Topics in Military Science and Leadership 1-6(Spec)
Studies in military science or leadership. Topics may include military leadership, military logistics, military administration, military operations or military history. Prerequisite: permission of the MSL Chairperson.

MSL 401 Leadership and Management 4(3-2)
MSL capstone. Planning, leading, assessing large unit actions. Advanced studies in staff organizations, training management, meetings, counseling, improving subordinates, managing organizational change. Prerequisites: MSL 301, MSL 302; or permission of MSL Chairperson.

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 or permission of MSL Chairperson.

Museum Studies (MST)

The complete description of the Museum Studies minor is found in the Interdepartmental and Interdisciplinary Majors and Minors section. Contact the Museum of Cultural and Natural History, 980-774-3829, 103 Row Hall.

Descriptions of courses approved for the University Program appear in italics.

MST 546 Introduction to Museum Work 3(3-0) F, Sp
Exploration of the duties and responsibilities encountered in museum work. Collection care and development, exhibit preparation, and educational program development. Prerequisites: permission of instructor.

MST 547 Museum Science Laboratory 3(0-8) F
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: MTS 546; 56 semester-hours of credit; or permission of instructor.

MST 550 Museum Collections Management and Care 3(3-0) F
Principles and practices, acquisition, cataloging, legal requirements, preservation, computerization and proper handling. Prerequisites: MTS 546; 56 hours of course credit; or permission of instructor.

MST 551 Museum Education and Interpretation Techniques 3(3-0) Sp
Curatorial techniques in museums including acquisition, cataloging, legal requirements, preservation, computerization and proper handling. Prerequisites: MTS 546; 56 hours of course credit; or permission of instructor.

MST 598 Museum Internship 6(Spec) F, Sp, Su
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: MTS 546, MTS 550, MTS 551; must be a graduate student or have declared an undergraduate minor in Museum Studies; or permission of instructor.

Mathematics (MTH)

The complete description of the Department of Mathematics is found in the College of Science & Technology.

Descriptions of courses approved for the University Program appear in italics.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: MTH 106.

MTH051 Review for Elementary Teachers Mathematics Proficiency Test 1-2(Spec) F, Sp
Review for elementary teachers proficiency tests on base ten numeration, 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) F, Sp
The real number system, basic number theory, variables and algebraic expressions, exponents, 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) F, Sp
Algebraic expressions, functions, factoring, graphing, linear and quadratic equations, linear inequalities, systems of linear equations, rational expressions, radical, negatives and rational exponents. Prerequisite: placement test score; or successful completion of MTH 055 or equivalent.

MTH 106 Plane Trigonometry 3(3-0) F, Sp
Solutions of triangles, trigonometric equations, and identities. No credit in MTH 106 after credit earned in MTH 130. Course does not count toward a major, minor in mathematics except for students pursuing a B.S. in Ed., Elementary Education. Prerequisite: one and one-half years of high school algebra; or successful completion of MTH 105 and one year of high school geometry.

MTH 107 College Algebra 3(3-0) F, Sp
Complex numbers, introduction to functions, zeros, graphing, linear functions, quadratic functions, intersections of graphs, interpreting graphs, inequalities, polynomial and rational functions, algebra of functions. Course does not count toward a major, minor in mathematics except for students pursuing a B.S. in Ed., Elementary Education. Prerequisites: successful completion of MTH 105, or equivalent competency.

MTH 108 Trigonometry 1(1-0) F, Sp
Analytic trigonometry including radian measure, trigonometric functions and identities. This supplement to previous work in trigonometry may be taken concurrently with MTH 130, MTH 132 or MTH 136. No credit after completion of MTH 106. Does not count toward a major or minor in mathematics. Prerequisites: previous knowledge of trigonometry.

MTH 116 Mathematics for Business I 3(3-0) F, Sp
Mathematical models, applications of linear, quadratic, exponential and logarithmic functions, linear algebra, linear programming, and the simplex algorithm. Does not count toward a major or minor in mathematics. Prerequisites: Co better in MTH 105, or passing another math class 100-level or higher with C or better, or transferring credit in a math class comparable MTH 105 or higher, or 50% or better on the Basic Mathematics Placement Test, or a score of 11 or above on the Elementary Algebra portion of the ACT, or a score of 10 or above on the Intermediate Algebra portion of the ACT.

MTH 130 Pre-Calculus Mathematics 4(4-0) F, Sp
Sets, mathematical induction, functions, relations, theory of equations, analytic geometry. Prerequisites: two years of high school algebra (or MTH 107); trigonometry (or MTH 106) or equivalents.

MTH 132 Calculus I 4(4-0) F, Sp
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 or equivalent. (Group II-B)

MTH 133 Calculus II 4(4-0) F, Sp
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) F, Sp
Mathematical background for elementary teachers. Sets, number systems, operations with natural numbers, rational numbers, elementary number theory. Admission limited to students pursuing a B.S. in Ed., Elementary Education. 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) F
Continuation of MTH 151. Decimals, ratios, proportion, geometry (concepts and measurement), probability, statistics, introduction to algebra. Prerequisites: MTH 151 and one of MTH 105, MTH 106, MTH 107, MTH 130, MTH 132.

MTH 175 Discrete Mathematics 3(3-0) F, Sp
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 593. Prerequisite: MTH 107 or equivalent.

MTH 200 Mathematics—A Cultural Approach 3(3-0) F, Sp
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. (Group I-A)

MTH 201 Fundamentals of Mathematics 3(3-0) D
History of mathematics, mathematical logic, numeration systems, properties of natural numbers and integers, 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 IPCD use only.

MTH 203 Mathematics: A Modeling Approach 3(3-0) F, Sp
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. (Group II-B)

MTH 216 Mathematics for Business II 3(3-0) F, Sp
Continuation of MTH 116. Mathematics of finance, applications of differential and integral calculus of one variable. Prerequisite: MTH 116.

MTH 217 Business Calculus 4(4-0) F
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. Prerequisite: MTH 107.

MTH 223 Linear Algebra and Matrix Theory 3(3-0) F, Sp
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) F
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) F, Sp
Vectors and surfaces in $\mathbb{R}^3$, vector-valued functions, functions of several variables, partial differentiation and some applications, multiple integrals, vector calculus. Prerequisites: MTH 133, and either MTH 223 or MTH 232.

MTH 256 Problem Solving with Technology for K-8 Mathematics Teachers 3(3-0)
Develops the use of handheld technologies and microcomputers, in K-8 mathematics with particular emphasis on explorations, modeling and mathematical problem-solving. Prerequisites: MTH 130, MTH 151, and MTH 152.

MTH 278 Mathematical Models 3(3-0) D
Mathematical modeling of real world problems using concepts learned in algebra, calculus and statistics. Prerequisites: MTH 132, MTH 136 or MTH 216 or equivalent. Corequisite: STA 282 or STA 382 or equivalent.

MTH 296 Special Topics in Mathematics 1-6(Spec) F
Subject matter not included in regular course. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of instructor.

MTH 332 Introduction to Analysis 3(3-0) F, Sp
Study of several basic concepts in mathematics including logic, set theory, relations and functions, cardinality, number systems, sequences. Prerequisite: MTH 137 or MTH 223.

MTH 334 Differential Equations 3(3-0) F, Sp
Definition and solution of first, second, and higher order differential equations. Prerequisites: MTH 137; or MTH 133, MTH 223.

MTH 341 College Geometry 3(3-0) F, Sp
Advanced modern geometry and foundations. Prerequisite: MTH 223.

MTH 351 Geometry for K-8 Mathematics Teachers 3(3-0) F, Sp
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. Prerequisites: MTH 256.

MTH 361- Field Experience in Teaching Mathematics 1(Spec) F, Sp
Preparation for and experience in working with students in secondary (7-12) mathematics classrooms. Prerequisites: MTH 223.

MTH 375 Discrete Structures 3(3-0) D
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 permission of instructor; a knowledge of a programming language.

MTH 397 Independent Study 1-6(Spec) F, Sp
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours.

MTH 434 Methods of Applied Mathematics 3(3-0) D
Computational methods for solving non-linear equations and systems of linear equations. Interpolation, numerical differentiation and integration. Prerequisites: MTH 133, MTH 223 or their equivalents; knowledge of a programming language; or permission of instructor.

MTH 439 Numerical Analysis II 3(3-0) Sp
Continuation of MTH 438. Solutions to ordinary differential equations. Study of approximation theory and solutions to nonlinear systems of equations. Prerequisite: MTH 438.

MTH 461 Teaching of Secondary School Mathematics 4(4-0) D
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
MTH 496 Special Topics in Mathematics 1-6(Spec) D
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) Sp
Prerequisites: MTH 223, MTH 332 or permission of instructor.

MTH 520 Optimization Theory 3(3-0) D
The mathematics and algorithms of classical and computer-age cryptology. 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 521 Theory of Numbers 3(3-0) D
Properties of integers, congruences, greatest common divisors and prime factorizations, applications of number theory to computer science and cryptography. Prerequisite: MTH 332 or permission of instructor.

MTH 522 The Mathematics 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 cryptography; cryptanalysis of cipher systems. Prerequisite: CPS 340 or MTH 332.

MTH 523 Modern Algebra I 3(3-0) F, Sp
Groups, rings, integral domains, fields, and fundamental homomorphism theorems. Prerequisite: MTH 332 or graduate status.

MTH 525 Modern Algebra II 3(3-0) D
Vector spaces, subspaces, bases and dimensions; linear transformations, their algebra, their representation by matrices, and linear functionals; eigenvalues, triangularizable and diagonalizable transformations; inner product spaces. Prerequisite: MTH 523 or permission of instructor.

MTH 532 Advanced Calculus I 3(3-0) F
Rigorous development of calculus for functions of one variable. Sequences, limits, continuity, differentiation, integration, exponential and logarithmic functions, arc length, series. Prerequisites: MTH 253 and MTH 332, or graduate status.

MTH 533 Advanced Calculus II 3(3-0) Sp
Continuation of MTH 532. Rigorous development of calculus for functions of several variables. Limits, continuity, differentiation, and integration. Prerequisite: MTH 532.

MTH 539 Mathematical Foundations of Actuarial Science 3(3-0) Sp
Rigorous development of foundational mathematical tools for quantitatively assessing risk. The application of these tools to problems encountered in actuarial science is emphasized. Does not count toward graduate degree. CR/NC only. Prerequisites: FIN 257; STA 584.

MTH 545 Introduction to Point-Set Topology 3(3-0) D
Elementary point-set topology. Sets, functions, metric spaces, topological spaces, quotient spaces, compactness, and connectedness. Prerequisite: MTH 532 or graduate status.

MTH 551 Mathematical Structures for K-8 Mathematics Teachers 3(3-0) D
Problem-solving, set theory, logic, number theory, algebra, consumer mathematics and mathematical systems. Credit will not apply toward master's degree in mathematics. Prerequisites: MTH 351 and MTH 554.

MTH 553 History of Elementary Mathematics for K-8 Teachers 3(3-0) F, Sp
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) D
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. Prerequisite: MTH 223.

MTH 555 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 Education. Emphasis will be on the classroom use of graphics calculators to teach mathematics. Prerequisites: MTH 132; with MTH 223 as a corequisite.

MTH 556 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 560 Teaching & Learning Mathematics with Technology 3(3-0) D
Examines microcomputer use in secondary education with particular emphasis on mathematical applications. Open only to those students pursuing a B.S. in Ed., Secondary Education. Prerequisite: MTH 223 or equivalent.

MTH 570 Mathematical Logic 3(3-0) D
Logical connectives, truth tables, quantifiers, models, logical truth. Incompleteness and undecidability of elementary number theory. Prerequisite: MTH 332 or permission of instructor.

MTH 573 History of Mathematics 3(3-0) F, Sp
History of arithmetic, algebra, geometry, calculus. Prerequisites: MTH 332 or MTH 341, or graduate status.

MTH 578 Combinatorics I 3(3-0) D
Construction of mathematical models, combinatorics and graph theory. Prerequisite: MTH 523.

MTH 586 Operations Research I 3(3-0) D
Mathematical theory and applications of mathematical programming. Linear programming duality, integer programming, mixed integer programming, and dynamic programming. Prerequisites: MTH 133/137, knowledge of FORTRAN.

MTH 587 Operations Research II 3(3-0) D
Continuation of MTH 586. Theory and application of stochastic models in operations research. Inventory models, queuing theory. Markov chains, stochastic programming. Prerequisites: STA 382, MTH 586, or equivalent.

MTH 591 Seminar in the Solution of Putnam Problems 1-3(Spec) D
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 223; permission of instructor.

MTH 594 Seminar in Higher Mathematics 3(3-0) D
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) D
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 toward one of two 400 or 500-level courses required on mathematics major. May not be counted toward a major or minor in mathematics except for students pursuing a B.S. in Ed. degree. Prerequisite: permission of instructor.

MTH 596 Special Topics in Mathematics 1-6(Spec) D
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) F, Sp
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of instructor.

MTH 599 Capstone Course in Mathematics 3(3-0) D
Prerequisite: permission of instructor.

MTH 619 Continuing Registration for Final Research Project 1(1-0)

MTH 623 Theory of Numbers 3(3-0) D
Prerequisite: MTH 223.

MTH 625 Theory of Associative Rings 3(3-0) D
Prerequisite: MTH 523.

MTH 632 Introduction to Real Analysis and Its Applications 3(3-0) D
Prerequisite: MTH 523.

MTH 633 Real Variables 3(3-0) D
Prerequisite: MTH 523.

MTH 634 Fourier Analysis 3(3-0) D
Prerequisite: MTH 523.

MTH 635 Introduction to Complex Variables 3(3-0) D
Prerequisite: MTH 523.

MTH 636 Complex Variable Theory 3(3-0) D
Prerequisite: MTH 523.

MTH 637 Theoretical Numerical Analysis 3(3-0) D
Prerequisite: MTH 523.

MTH 641 Topics in Geometry 3(3-0) D
Prerequisite: MTH 523.

MTH 645 Topology 3(3-0) D
Prerequisite: MTH 523.

MTH 651 Basic Ideas and Procedures in Elementary School Arithmetic 3(3-0) D
Prerequisite: MTH 223.

MTH 652 The Teaching of Measurement 3(3-0) D
Prerequisite: MTH 223.

MTH 655 Teaching & Learning Mathematics with Technology 3(3-0) D
Prerequisite: MTH 223.

MTH 658 Workshop in Teaching Mathematics 1-6(Spec) D
Prerequisite: MTH 223.

MTH 660 Laboratory: Construction and Use of Teaching Aids in Mathematics 2(1-2) D
Prerequisite: MTH 223.

MTH 661 Teaching of Middle School Mathematics 3(3-0) D
Prerequisite: MTH 223.

MTH 666 Seminar: Problems in the Teaching and Supervision of Secondary Mathematics 3(3-0) D
Prerequisite: MTH 223.

MTH 668 Seminar: The Teaching and Supervision of Secondary Mathematics 3(3-0) D
Prerequisite: MTH 223.

MTH 671 Introduction to the Axiomatic Method 3(3-0) D
Prerequisite: MTH 223.

MTH 673 History of Advanced Mathematics 3(3-0) D
Prerequisite: MTH 223.

MTH 678 Combinatorics II 3(3-0)
Prerequisite: MTH 578.

MTH 692 Graduate Seminar in Mathematics Education 1-4(Spec) D
Prerequisite: MTH 223.

MTH 693 Graduate Seminar in Mathematics and Its Applications 1-4(Spec) F, Sp
Prerequisite: MTH 223.

MTH 694 Practicum in Mathematics 3(3-0) D
Prerequisite: MTH 223.

MTH 695 Special Topics in Mathematics Education 1-6(Spec) D
Prerequisite: MTH 223.

MTH 696 Special Topics in Mathematics 1-6(Spec) D
Prerequisite: MTH 223.

MTH 697 Independent Study 1-9(Spec) F, Sp
Prerequisite: MTH 223.
MUS 114 Listening Experience 3(3-0) F, Sp
Interdisciplinary exploration of the elements of music. Not open to music majors.

MUS 110 Music in Society 2-3(Spec) F, Sp
A hands-on introduction to the use of computers, software, synthesizers, and related equipment as it relates to music and music education.

MUS 109 Introduction to Music Technology 1(1-1)
A hands-on introduction to the use of computers, software, synthesizers, and related equipment as it relates to music and music education.

MUS 110 Music in Society 2-3(Spec) F, Sp
Introduction to self-expression through the art of music. An intercultural and interdisciplinary exploration of the elements of music. Not open to music majors. (Group I-B)

MUS 114 Listening Experience 3(3-0) F, Sp
Objectives are to experience a variety of musical events, to develop musical awareness, to sharpen perception, and increase musical discrimination. Not open to music majors. (Group I-B)

MUS 131 Music Fundamentals for Classroom Teachers 2(2-0) F, Sp
Fundamentals of music geared to prospective elementary classroom teachers.

MUS 132 Music Methods for Classroom Teachers 1-2(Spec) F, Sp
Enrollment limited to students on the Curriculum for Teachers in Elementary Grades and the Curriculum for Teachers of the Mentally or Emotionally Impaired. Prerequisite: MUS 131.

MUS 134 Music in Early Childhood 3(3-0) F, Sp
A course designed to develop an understanding of the use of musical experiences to aid in the development of the young child. Enrollment limited to students with a signed major in Child Development; Pre-School or by permission of instructor. May be substituted for MUS 132 in the above mentioned major. Prerequisite: MUS 131.

MUS 141 Vocal Techniques I 1(0-2) F, Sp
Study and practice of basic techniques necessary to improve the singing voice (i.e. posture, breathing habits, tone, diction).

MUS 142 Vocal Techniques II 1(0-2) F, Sp
Continuation of work begun in MUS 141.

MUS 144 Woodwind Techniques 2(0-4) F, Sp
Flute, clarinet, saxophone.

MUS 146 Brass Techniques 2(0-4) F, Sp
Trumpet, French horn, trombone, baritone, tuba.

MUS 147 Piano Class I 1(0-2) F
Beginning class piano instruction.

MUS 148 Piano Class II 1(0-2) Sp
Continuation of work begun in MUS 147. Prerequisite: MUS 147 or permission of instructor.

MUS 149 Beginning and Intermediate Guitar 1(1-0) D
Guitars not provided. Open to all students.

MUS 150 Voice 1-12(Spec) F, Sp

MUS 151 Organ 1-12(Spec) F, Sp

MUS 152 Piano 1-12(Spec) F, Sp

MUS 153 Violin and Viola 1-12(Spec) F, Sp

MUS 155 Violoncello 1-12(Spec) F, Sp

MUS 157 String Bass 1-12(Spec) F, Sp

MUS 158 Composition 1-4(Spec) F, Sp
Applied study of music composition. Prerequisites: Minimum GPA of 3.0 in MUS 101, MUS 102, MUS 103, MUS 104, and permission of instructor.

MUS 159 Jazz Guitar 2-8(Spec)
Individual instruction in jazz guitar performance. Prerequisites: permission of instructor and admission to the music program.

MUS 161 Flute 1-12(Spec) F, Sp

MUS 163 Oboe 1-12(Spec) F, Sp

MUS 165 Clarinet 1-12(Spec) F, Sp

MUS 167 Bassoon 1-12(Spec) F, Sp

MUS 169 Saxophone 1-12(Spec) F, Sp

MUS 171 Cornet or Trumpet 1-12(Spec) F, Sp

MUS 173 French Horn 1-12(Spec) F, Sp

MUS 175 Trombone 1-12(Spec) F, Sp

MUS 177 Euphonium 1-12(Spec) F, Sp

MUS 178 Tuba 1-12(Spec) F, Sp

MUS 179 Percussion 1-12(Spec) F, Sp

MUS 180 Festival Chorus 1-8(Spec) F
Preparation and performance of major choral compositions. No audition required. Students may enroll a maximum of eight semesters.

MUS 181 Men's Chorus 1-8(Spec) D
Open by audition to any student in the University.

MUS 182 Women's Chorus 1-8(Spec) F, Sp
Open by audition to any student in the University.

MUS 183 Concert Choir 1-8(Spec) F, Sp
Open by audition to any student in the University.

MUS 185 Orchestra 1-8(Spec) F, Sp
Open to anyone who can demonstrate the necessary proficiency on an orchestral instrument.

MUS 186 Band 1-8(Spec) F, Sp
Open to anyone who can demonstrate the necessary proficiency on a band instrument.

MUS 187 String Orchestra 1-8(Spec)
Open to anyone who can demonstrate the necessary proficiency on a string instrument.

MUS 188 Men’s Barbershop 1-8(Spec)
Open by audition to anyone who can demonstrate the appropriate vocal proficiency.

MUS 189 Introduction to Accompanying 1(0-2)
Experience in accompanying vocal and instrumental music. Prerequisite: admission to music program or permission of instructor.

MUS 197 Special Studies 1-6(Spec) D

MUS 201 Theory III 3(3-0) F
Continuation of MUS 102. Study of chromatic harmony and large formal structures. Prerequisites: MUS 102.

MUS 202 Theory IV 3(3-0) Sp
Continuation of MUS 201. Study of chromatic harmony (late 19th and early 20th centuries), and large formal structures. Prerequisites: MUS 201.

MUS 203 Sight Singing and Ear Training III 1(0-2) F
Prerequisites: MUS 102, MUS 104.

MUS 204 Sight Singing and Ear Training IV 1(0-2) Sp
Prerequisites: MUS 102, MUS 203.

MUS 206 Understanding Musical Composition 3(3-0)
Develop basic theory skills in notation, sight-singing, listening, composition, and the aesthetic appreciation of music in Western culture. Not open to music majors. (Group I-B)

MUS 209 Music Synthesis I 2(2-0) F
An introduction to computer programs that both print and play music through computers and electronic instruments. Prerequisites: MUS 148 or MUS 152; MUS 101 or MUS 206 or equivalent; permission of instructor.

MUS 211 Historical Survey of Music I 3(2-2) F
Western music history from ancient times to c.1700. Includes an introduction to the music of selected non-Western cultures. Prerequisites: MUS 101 or permission of instructor.

MUS 212 Historical Survey of Music II 3(2-2) Sp
Continuation of the work begun in MUS 211. Western music history from the Baroque through the early Romantic era (c. 1700-1850). Prerequisites: MUS 211 or permission of instructor.

MUS 213 Jazz: An American Art Form 3(3-0) F, Sp
A music literature course reviewing important trends and styles in the history of jazz. Open to all students. (Group I-B)

MUS 230 Introduction to Music Education 2(1-2) F, Sp
An overview of music teaching methodologies and observations of these methods as they are used by public school music teachers.

MUS 233 Musicanship for the Elementary School 3(3-0) F
Enrollment limited to students on the Curriculum for Teachers in Elementary Grades. A continuation of MUS 131. Prerequisite: MUS 101 or MUS 131, or permission of instructor.

MUS 236 Piano Pedagogy I 2(2-0) F (Odd Year)
Introduction to elementary piano teaching methods and materials, including repertoire, sight-reading, technique, duets, and theory. Prerequisite: two semesters of MUS 152 or permission of instructor.

MUS 237 Piano Pedagogy II 2(2-0) Sp (Even Year)
Intermediate piano teaching methods and materials, including repertoire, sight-reading, technique, duets, and theory. Prerequisite: MUS 236.

MUS 241 Diction for Singers 2(1-2) F
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 I 1(0-2) F, Sp
Prerequisite: MUS 144.

MUS 246 String Techniques I 2(0-4) F, Sp
Violin, viola, cello, bass viola.

MUS 247 Piano Class III 1(0-2) F
Prerequisite: MUS 148 or permission of instructor.

MUS 248 Piano Class IV 1(0-2) Sp
Prerequisite: MUS 247 or permission of instructor.

MUS 249 Functional Piano 1(0-2) F (odd year)
Development of skills in harmonization, improvisation, transposition, and playing by ear for intermediate and advanced piano students. Prerequisites: placement audition or permission of instructor.

MUS 250 Voice 1-12(Spec) F, Sp

MUS 280 Introduction to Conducting 2(0-4) F
Development and coordination of the physical and musical skills needed by a conductor. Prerequisites: MUS 202, MUS 204; or permission of instructor.

MUS 281 Advanced Instrumental Ensemble 1-8(Spec) F, Sp
Enrollment by permission of instructor only.

MUS 282 Advanced Vocal Ensemble 1-8(Spec) F, Sp
Enrollment by audition only. May include Madrigals, Musical Theatre, or Opera Theatre.

MUS 284 Techniques for the Singing Actor 1-6(Spec) D
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) F, Sp
Prerequisite: enrollment requires permission of percussion instructor.

MUS 286 Jazz Laboratory Band 1-8(Spec) F, Sp
Prerequisite: Enrollment requires permission of instructor.

MUS 297 Special Studies 1-6(Spec) D

MUS 302 Contrapuntal Techniques 2(2-0) F
Prerequisites: admission to Music candidacy; MUS 202.

MUS 303 Eighteenth-Century Counterpoint 2(2-0) Sp
Prerequisite: admission to Music candidacy; MUS 302.

MUS 304 Instrumentation and Scoring 3(2-2) F, Sp
Prerequisite: admission to Music candidacy; MUS 201, permission of instructor.

MUS 309 Music Synthesis II 2(2-0) Sp
Continuation of MUS 209, computer-driven synthesizer programs with emphasis on individual projects. Introduction to music samplers. Prerequisites: admission to Music candidacy; MUS 209 or equivalent training; permission of instructor.

MUS 311 Historical Survey of Music III 3(2-2) F
Continuation of the work begun in MUS 211 and MUS 212. Western music history from c. 1850 to the present. Prerequisites: admission to Music candidacy; MUS 212 or permission of instructor.

MUS 312 Musics of the World 3(3-0) F
An introduction to musical systems of major non-Western cultures and folk and traditional music of Western continents. (Group I-B)

MUS 314 History of Symphonic Literature 3(3-0) Sp
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) D
Prerequisite: admission to Music Candidacy.

MUS 316 History and Literature of the Organ 2(2-0) Sp (odd year)
Prerequisite: admission to Music candidacy; four semesters of private organ study.

MUS 317 Song Repertoire for Young Voices 2(2-0) Sp (even year)
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) Sp (odd year)
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 diction.

MUS 330 Music for Elementary Classroom Teachers 3(3-0)
Fundamentals and methods of teaching music for elementary classroom teachers. Prerequisite: admission to the Teacher Education Program or permission of instructor.

MUS 331 Instrumental Organization 2(2-0) Sp
Includes all phases of instrumental organization and administration in the elementary, junior high, and senior high school. Prerequisites: admission to Music candidacy; MUS 230 or permission of instructor.

MUS 332 Double Reed Making 1(0-2) D
Prerequisite: admission to Music candidacy; MUS 244 (may be taken concurrently), permission of instructor.

MUS 333 Music Education in the Elementary Grades I 2(2-0) F, Sp
A general methods course for music majors and minors; topics include objectives and instructional strategies for development of basic musical concepts and skills in elementary classroom music. Prerequisite: General Music minors: MUS 233; Music majors: MUS 230.

MUS 335 Instrumental Pedagogy 2(2-0) D
Instrumental pedagogy and practicum for the student’s major instrument on the Bachelor of Music degree: Orchestral Instrumental concentration. Prerequisites: admission to Music candidacy; junior or senior standing; instrumental music major or minor; or permission of instructor.

MUS 338 Voice Pedagogy 2(1-2) F
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) F (Even Year)
Supervised experience in teaching piano at the pre-college and college levels.
in both the private and group settings. Prerequisite: MUS 237.
MUS 344 Percussion Techniques 2(0-4) F, Sp
Prerequisites: admission to Music candidacy.
MUS 347 Brass and Percussion Techniques and Materials for Choral Music Educators 1(0-2) D
Basic skill development and functional knowledge of brass and percussion instruments applicable for choral music educators. Prerequisites: admission to Music Candidacy.
MUS 348 Woodwind and String Techniques and Materials for Choral Music Educators 1(0-2) D
Basic skill development and functional knowledge of woodwind and string instruments applicable for choral music educators. Prerequisites: admission to Music Candidacy.
MUS 350 Voice 1-20(Spec) F, Sp
MUS 351 Organ 1-20(Spec) F, Sp
MUS 352 Piano 1-20(Spec) F, Sp
MUS 353 Violin and Viola 1-20(Spec) F, Sp
MUS 355 Violoncello 1-20(Spec) F, Sp
MUS 357 String Bass 1-20(Spec) F, Sp
MUS 358 Composition 2-8(Spec) F, Sp
Advanced applied study of music composition. Prerequisites: MUS 158, admission to music candidacy, and composition jury.
MUS 359 Jazz Guitar 2-8(Spec)
Individual instruction in jazz guitar performance. Prerequisites: permission of instructor and admission to the music program.
MUS 360 Harpsichord 1-8(Spec)
Study of solo harpsichord repertoire, continuo and ensemble playing, and figured bass. Prerequisite: 4 semesters of private organ or piano study, or permission of instructor.
MUS 361 Flute 1-20(Spec) F, Sp
MUS 363 Oboe 1-20(Spec) F, Sp
MUS 365 Clarinet 1-20(Spec) F, Sp
MUS 367 Bassoon 1-20(Spec) F, Sp
MUS 369 Saxophone 1-20(Spec) F, Sp
MUS 371 Cornet or Trumpet 1-20(Spec) F, Sp
MUS 373 French Horn 1-20(Spec) F, Sp
MUS 375 Trombone 1-20(Spec) F, Sp
MUS 377 Euphonium 1-20(Spec) F, Sp
MUS 378 Tuba 1-20(Spec) F, Sp
MUS 379 Percussion 1-20(Spec) F, Sp
MUS 381 Choral Conducting and Materials 2(0-4) Sp
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) F
Basic principles of instrumental conducting with reading and evaluation of training and performance materials. Prerequisites: admission to Music candidacy; MUS 230, MUS 280; permission of instructor.
MUS 389 Service Playing 2(2-0) F (odd year)
Covers various worship services and liturgies. Prerequisite: admission to Music candidacy; 4 semesters of private organ study.
MUS 397 Special Studies 1-6(Spec) D
MUS 413 History and Literature of Church Music 2(2-0) F (even year)
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) D
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) D
This course is intended for students possessing prior experience in Music History and Music Theory who are studying abroad. Prerequisites: admission to Music candidacy; prior experience in music history and music theory.
MUS 435 Music Education in the Junior High/Middle School 2(1-2) Sp
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) F, Sp
MUS 497 Special Studies 1-6(Spec) D
For 600 and 700 level course descriptions consult the current Graduate Bulletin.
MUS 607 Basic Skills in Music Technology I 1(2-0) D
MUS 608 Basic Skills in Music Technology II 2(2-0) D
MUS 619 Continuing Registration for Final Research Project 1(1-0)
MUS 620 Jazz Harmony and Analysis 3(3-0) F
MUS 621 Jazz Improvisation Pedagogy and Practicum 2(1-2) S
MUS 622 Modern Jazz History 3(3-0) S
MUS 624 Jazz Pedagogy 3(2-2) D
MUS 631 Advanced Piano Pedagogy I 3(3-0) F
MUS 632 Advanced Piano Pedagogy II 3(3-0) S
MUS 633 Class Piano Pedagogy 3(3-0) F
MUS 634 Internship in Piano Pedagogy 3(2-2) S
MUS 701 Advanced Composition 2-6(Spec) F, Sp
MUS 707 Analytical Styles I: Medieval - Classical 3(3-0) D
MUS 708 Analytical Styles II: 19-20th Century 3(3-0) D
MUS 711 Choral Literature from 1600 to 1750 3(3-0) D
MUS 713 The Development of Jazz Through 1945 3(3-0) D
MUS 714 Wind Band Literature 3(3-0) D
MUS 715 Rock ‘n’ Roll Seminar 3(3-0) D
MUS 717 Historical Topics I: Medieval-Classical 3(3-0) D
MUS 718 Historical Topics II: 19-20th Century 3(3-0) D
MUS 719 Seminar in World Music 3(3-0) D
MUS 731 Organization of School Music 3(3-0) D
MUS 732 The Rationale and Principles of Music Education 3(3-0) D
MUS 733 Woodwind Pedagogy 3(3-0) D
MUS 734 Brass Pedagogy 3(3-0) D
MUS 735 Percussion Pedagogy 3(3-0) D
MUS 736 String Pedagogy 3(3-0) D
MUS 737 Pedagogy and Literature for Young Voices 3(2-2) D
MUS 750 Voice 1-8(Spec) F, Sp
MUS 751 Organ 1-8(Spec) F, Sp
MUS 752 Piano 1-8(Spec) F, Sp
MUS 753 Violin and Viola 1-8(Spec) F, Sp
MUS 755 Violoncello 1-8(Spec) F, Sp
MUS 760 Harpsicord 1-8(Spec) F, Sp
MUS 761 Flute 1-8(Spec) F, Sp
MUS 763 Oboe 1-8(Spec) F, Sp
MUS 765 Clarinet 1-8(Spec) F, Sp
MUS 767 Bassoon 1-8(Spec) F, Sp
MUS 769 Saxophone 1-8(Spec) F, Sp
MUS 771 Corrett or Trumpet 1-8(Spec) F, Sp
MUS 773 French Horn 1-8(Spec) F, Sp
MUS 775 Trombone 1-8(Spec) F, Sp
MUS 777 Euphonium 1-8(Spec) F, Sp
MUS 778 Tuba 1-8(Spec) F, Sp
MUS 779 Percussion 1-8(Spec) F, Sp
MUS 780 Performance Ensembles 1-2(Spec) F, Sp
MUS 781 Advanced Choral Conducting 3-6(Spec) D
MUS 782 Advanced Instrumental Conducting 3-6(Spec) D
MUS 784 Instrumental Rehearsal Techniques 3(3-0) D
MUS 791 Introduction to Music Research 3(3-0) D
MUS 793 Research Project In Music Education 2(Spec) F, Sp
MUS 794 Evaluation of Musical Behavior 3(3-0) D
MUS 797 Special Studies 1-6(Spec) D
MUS 798 Thesis 1-6(Spec) D
MUS 799 Recital 4(Spec) D

Credit Limitation. Mathematics courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: MUS 535, 597, 793, 797.

Ojibwe

Information on Ojibwe courses is available from the College of Humanities and Social & Behavioral Sciences or the Department of History.

Descriptions of courses approved for the University Program appear in italic type.

OJB 101 Elementary Ojibwe I 3(3-0)
Designed for students who have had no Ojibwe language instruction. Basic language skills. Introduction to Ojibwe culture via the language. (Group IV-B).

OJB 102 Elementary Ojibwe II 3(3-0)
Basic language skills. Continuation of OJB 101 including the continued introduction of the culture of the Ojibwe people. Prerequisites: OJB 101.

OJB 201 Intermediate Ojibwe I 3(3-0)
Review of grammar and further development of all language skills. Further explanation of Ojibwe culture. Prerequisites: OJB 101, OJB 102.

OJB 202 Intermediate Ojibwe II 3(3-0)
Designed for those who wish to continue the study of the Ojibwe language. The emphasis will be on the written language. Prerequisites: OJB 101, OJB 102; or knowledge of the Ojibwe language and OJB 201.

Sports Instructional Program (Activity) (PED)

The complete description of the Sports Instructional Program is found in the Department of Physical Education and Sport in the Herbert H. and Grace A. Dow College of Health Professions.

Note: a limitation of 6 hours of PED 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) F, Sp
Beginning techniques of springboard diving. $10 aquatic fee.

PED 123 Aqua-Aerobics 1(Spec) F, Sp
Fitness concepts and water exercise program for people of all ages and fitness levels. Prerequisite: None. CR/NC only. $10 aquatic fee.

PED 127 Beginning Swimming 1(1-0) F, Sp
Instruction in basic skills of water adjustment, floating, kicking and learning to swim across the pool. CR/NC only. $10 aquatic fee.

PED 129 Intermediate Swimming 1(1-0) F, Sp
Introduction to swim strokes, backstroke, elementary backstroke, sidestroke, breaststroke, and butterfly. CR/NC only. $10 aquatic fee.

Prerequisites: PED 127 or beginning level swimming competency; approval of instructor: ability to swim one length of pool.

PED 130 Advanced Swimming 1(1-0) F, Sp
Conditioning and Advanced Swimming Stroke Techniques. CR/NC only. $10 aquatic fee. Prerequisites: PED 129 or intermediate level swimming competency; approval of instructor; skill in breaststroke, front crawl and sidestroke.

PED 132 Introduction to Clogging 1(Spec)
Beginner level of clogging. Students will learn basic level clogging steps using a variety of music. Students will learn to read cue-sheets and understand the history of clogging. Identical to DAN 132. Credit may not be earned in more than one of these courses.

PED 136 Aerobic Kickboxing 2(Spec) F, Sp
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) F, Sp
A course comprised of fitness walking activities designed for students who want to begin a program to improve their cardiovascular endurance. Physician approval is recommended.

PED 138 Hi-Lo Aerobics 2(Spec) F, Sp
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) F, Sp
A course comprised of step aerobic conditioning activities and vigorous movement patterns designed to improve or maintain cardiovascular endurance. Physician approval is recommended.

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. Prerequisite: None.

PED 141 Judo, Beginning 1(Spec) F, Sp
Student must furnish own Gi.

PED 142 Hapkido - The Way of Coordinated Power 1(1-0)
Hapkido is a Korean self-defense style which combines elements of Judo, Tae Kwon-Do, and Aikido. It is easy to learn, safe to practice, and enjoyable.

PED 143 Basic Yoga 1(Spec) F, Sp
A safe and disciplined yoga practice while focusing on various aspects of fitness.

PED 145 Fundamentals of Gymnastics 1(Spec) F, Sp
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. Prerequisites: None.

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) F, Sp
Student furnishes own arrows.

PED 153 Jogging 1(Spec)
A beginning aerobic workout course comprised of conditioning activities and vigorous nonstop rhythmic movement patterns designed to improve or maintain cardiovascular endurance.

PED 159 Step Aerobics II 1(1-2) F, Sp
A course comprised of step aerobic conditioning activities and vigorous movement patterns designed to improve or maintain cardiovascular endurance. Physician approval is recommended.

PED 160 Advanced Yoga 2(1-2) F, Sp
A course comprised of intermediate to advanced yoga skills intended to focus on development of movement combinations and core strength.

PED 161 Basic Rock Climbing 1(Spec) F, Sp
A course comprised of basic rock climbing skills designed to improve or maintain cardiovascular endurance. Physician approval is recommended.

PED 162 Advanced Rock Climbing 2(Spec) F, Sp
A course comprised of advanced rock climbing skills designed to improve or maintain cardiovascular endurance. Physician approval is recommended.

PED 163 Water Aerobics 1(2-1) F, Sp
A course comprised of aerobic water movement activities designed for people of all ages and fitness levels. Physician approval is recommended.

PED 164 Water Aerobics II 2(1-2) F, Sp
A course comprised of advanced water aerobics activities designed for people of all ages and fitness levels. Physician approval is recommended.

PED 165 Advanced Rock Climbing 2(2-1) F, Sp
A course comprised of advanced rock climbing skills designed to improve or maintain cardiovascular endurance. Physician approval is recommended.

PED 166 Advanced Rock Climbing 3(1-2) F, Sp
A course comprised of advanced rock climbing skills designed to improve or maintain cardiovascular endurance. Physician approval is recommended.

PED 170 The Development of the Modern Athletic Fitness Program 3(3-0) D
Designed primarily for students with no previous experience in physical fitness.

PED 171 Aerobic Exercise 1(1-2) F, Sp
A course comprised of aerobic exercise activities designed for people of all ages and fitness levels. Physician approval is recommended.

PED 172 Advanced Aerobic Exercise 2(1-2) F, Sp
A course comprised of advanced aerobic exercise activities designed for people of all ages and fitness levels. Physician approval is recommended.

PED 173 Aerobic Exercise 3(1-2) F, Sp
A course comprised of advanced aerobic exercise activities designed for people of all ages and fitness levels. Physician approval is recommended.

PED 174 Advanced Aerobic Exercise 4(1-2) F, Sp
A course comprised of advanced aerobic exercise activities designed for people of all ages and fitness levels. Physician approval is recommended.
To develop further understanding and appreciation of bowling. To develop further proficiency in the fundamental skills of bowling. Fee of $25. Prerequisites: PED 154 or equivalent.

PED 255 Intermediate Fencing 1(Spec)
Opportunity for students to continue beyond the beginning level of skill and strategy mastery. A $130 fee is charged for equipment. Prerequisite: PED 142.

PED 256 Intermediate Golf 1(Spec) F, Sp
Intermediate golf skills taught. Classes meet at golf course. Student furnishes own clubs and transportation. A golf course fee of $40 is charged. Prerequisite: beginning golf skills.

PED 258 Intermediate Figure Skating 2(Spec) F, Sp
Intermediate Figure Skating is intended to present more advanced skills and combination moves to the class. The goal is for skaters to learn and execute more difficult skills and to gain speed and confidence on the ice.

PED 261 Intermediate Snowboarding 1(Spec) Sp
Continued development of snowboarding skills. $65.00 fee. Prerequisites: PED 161 or permission of instructor.

PED 262 Snow Skiing, Intermediate 1(Spec) Sp
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) F, Sp
Student furnishes own racket and balls.

PED 270 3-on-3 Basketball 1(Spec)
Development of skills needed to play 3-on-3 basketball. Prerequisite: PED 170 or permission of instructor.

PED 278 Volleyball, Intermediate 1(Spec) F, Sp
Prerequisite: skill test; student should perform spiking and defensive movements.

PED 285 Strength Training 1(Spec) F, Sp
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) D
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 360 Racquetball, Advanced 1(Spec) F, Sp
Student furnishes racquet, official ball, and eye protection.

PED 361 Advanced Snowboarding 1(Spec) Sp
To further understand, appreciate and develop proficiency in the skills of advanced snowboarding. $65.00 fee. Prerequisites: PED 261 or permission of instructor.

PED 362 Snow Skiing, Advanced 1(Spec) D
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) F, Sp
Student furnishes own racket and balls.

Physical Education Professional Courses (PES)

The complete description of Physical Education is found in the Department of Physical Education and Sport in the Herbert H. and Grace A. Dow College of Health Professions.

PED 103 Sport Skill Development – Elementary Level 3(Spec) F, Sp
Sports for grades 4-8 for Physical Education Elementary minors and for Physical Education majors.

PED 104 Sport Skill Development – Secondary Level 3(Spec)
Sports for grades 7-12 for Physical Education Secondary minors and for Physical Education majors.

PED 115 Fundamental Motor Skills 2(2-0)
Identification, classification, and performance of fundamental motor skills with emphasis on recognition of proper/improper techniques.

PED 118 Sport in America 3(3-0) F, Sp
A study of sport in America from different methodological perspectives. An historical and sociological investigation of sport as a social institution.

PED 120 Skin and Scuba Diving 2(1-2) F, Sp
Provides an opportunity for learning the techniques and knowledge of safe skin and scuba diving. Students must provide mask, fins, and snorkel. $100 fee.

PED 143 Sexual Assault and Harassment/Awareness and Avoidance 2(2-0) F, Sp
A class designed to provide students with appropriate knowledge and skills
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Schedule</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>PES 145</td>
<td>Skill Development in Gymnastics</td>
<td>1(0-2)</td>
<td>F</td>
<td></td>
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<tr>
<td>PES 167</td>
<td>Track and Field - Running Events</td>
<td>1(Spec)</td>
<td>F</td>
<td></td>
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<tr>
<td>PES 170</td>
<td>Fundamentals of Basketball</td>
<td>1(Spec)</td>
<td>F, Sp</td>
<td></td>
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<tr>
<td>PES 172</td>
<td>Fundamentals of Baseball and Softball</td>
<td>1(Spec)</td>
<td>F, Sp</td>
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<tr>
<td>PES 174</td>
<td>Fundamentals of Football</td>
<td>1(Spec)</td>
<td>F, Sp</td>
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<tr>
<td>PES 176</td>
<td>Soccer</td>
<td>1(Spec)</td>
<td>F</td>
<td></td>
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<tr>
<td>PES 178</td>
<td>Power Volleyball</td>
<td>1(Spec)</td>
<td>F, Sp</td>
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<tr>
<td>PES 186</td>
<td>Physical Fitness for Life</td>
<td>2(2-0)</td>
<td>F, Sp</td>
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<tr>
<td>PES 295</td>
<td>Clinical Field Experience</td>
<td>1(Spec)</td>
<td>F, Sp</td>
<td></td>
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<tr>
<td>PES 203</td>
<td>Physical Education Program for Grades K-3</td>
<td>3(2-2)</td>
<td>F, Sp</td>
<td></td>
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<tr>
<td>PES 210</td>
<td>Mental Training for Sport Performance</td>
<td>3(3-0)</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>PES 212</td>
<td>Applied Physiology and Kinesiology</td>
<td>3(2-2)</td>
<td>F, Sp</td>
<td></td>
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<tr>
<td>PES 215</td>
<td>K-12 Physical Education Programming</td>
<td>3(3-0)</td>
<td>F</td>
<td></td>
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<tr>
<td>PES 220</td>
<td>SCUBA II - Open Water</td>
<td>1(Spec)</td>
<td>F, Sp</td>
<td></td>
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<tr>
<td>PES 224</td>
<td>WSI-Swimming and Water Safety</td>
<td>3(2-2)</td>
<td>F, Sp</td>
<td></td>
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<tr>
<td>PES 271</td>
<td>Basketball</td>
<td>2(2-0)</td>
<td>Sp</td>
<td></td>
</tr>
<tr>
<td>PES 279</td>
<td>Sport First Aid</td>
<td>2(2-0)</td>
<td>Sp</td>
<td>First aid knowledge and skill tailored to the sport environment and the athletic coach. Prerequisites: HSC 205, 211; or concurrent enrollment.</td>
</tr>
<tr>
<td>PES 295</td>
<td>Clinical Field Experience</td>
<td>1(Spec)</td>
<td>F, Sp</td>
<td>An opportunity for students to observe experienced physical educators in a school setting and work with elementary, middle, or high school students. CR/NC only. Prerequisites: PES 103, 115, PES 186, PES 215; EDU 107.</td>
</tr>
<tr>
<td>PES 297</td>
<td>Special Topics in Physical Education and Sport</td>
<td>1-12(Spec)</td>
<td></td>
<td>Contains subject matter not included in courses currently listed in the Bulletin.</td>
</tr>
<tr>
<td>PES 300</td>
<td>Wilderness Experience for Leadership Development</td>
<td>3(2-2)</td>
<td>Su</td>
<td>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.</td>
</tr>
<tr>
<td>PES 303</td>
<td>Physical Education Program for Grades 4-6</td>
<td>3(2-2)</td>
<td>F, Sp</td>
<td>Foundations for planning physical education for grades 4-6. Studies of developmental characteristics of children grades 4-6 are used to plan physical education programs. Prerequisite: PES 203 or permission of instructor.</td>
</tr>
<tr>
<td>PES 304</td>
<td>Youth Sports</td>
<td>2(2-0)</td>
<td>F, Sp</td>
<td>Comprehensive study of problems involved in organizing and coaching youth sports.</td>
</tr>
<tr>
<td>PES 308</td>
<td>Work Physiology</td>
<td>3(3-0)</td>
<td>D</td>
<td>Lectures and laboratories on basic principles of physiology of exercise. The basics of exercise, performance conditioning, and the human organism response to these conditions. Identical to HSC 308. Credit may not be earned in more than one of these courses. Prerequisite: HSC 211 or equivalent, or permission of instructor.</td>
</tr>
<tr>
<td>PES 310</td>
<td>Physical Education for the Classroom</td>
<td>3(Spec)</td>
<td>F</td>
<td>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.</td>
</tr>
<tr>
<td>PES 311</td>
<td>Psychology of Coaching</td>
<td>3(3-0)</td>
<td>F, Sp</td>
<td>Emphasizes the application of psychological principles to the sports setting as they affect coaching styles, individual athletes, and athletic performance.</td>
</tr>
<tr>
<td>PES 315</td>
<td>Methods in Teaching Physical Education</td>
<td>3(3-0)</td>
<td>F, Sp</td>
<td>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.</td>
</tr>
<tr>
<td>PES 318</td>
<td>Social, Historical, and Global Issues in Sport</td>
<td>3(3-0)</td>
<td>F, Sp</td>
<td>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.</td>
</tr>
<tr>
<td>PES 319</td>
<td>Women and Sport</td>
<td>2(2-0)</td>
<td>Sp, D</td>
<td>An investigation of the motivational and social implications of women’s participation in sport. Identical to WST 319. Credit may not be earned in more than one of these courses.</td>
</tr>
<tr>
<td>PES 320</td>
<td>Foundations of Sport Management</td>
<td>3(3-0)</td>
<td>F</td>
<td>The managerial fundamentals and principles applied to the sport industry: concepts and functions of management, organizational theories, human resources, integrated issues and trends. Prerequisite: PES 190 (C or better); minimum 56 credit hours.</td>
</tr>
<tr>
<td>PES 321</td>
<td>ARC Lifeguard Certification</td>
<td>3(2-2)</td>
<td>F, Sp</td>
<td>Skills and techniques in preventive lifeguarding at pools and non-surf beaches. There is a $10 aquatic fee. Prerequisites: swim 500 yards continuously; surface dive to 9 feet and recover a 10 pound diving brick; surface dive to 5 feet and swim underwater for 15 yards; tread water for 1 minute.</td>
</tr>
<tr>
<td>PES 338</td>
<td>Teaching Aerobics</td>
<td>3(3-0)</td>
<td>F</td>
<td>Present basic methods of teaching low impact aerobics, high impact aerobics and step aerobics. Physician approval is recommended. Prerequisites: PES 186, HSC 211 OR HSC 214 and HSC 215.</td>
</tr>
<tr>
<td>PES 347</td>
<td>Organization and Administration of Special Olympic Games</td>
<td>3(3-0)</td>
<td>F</td>
<td>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. Prerequisite: None.</td>
</tr>
<tr>
<td>PES 348</td>
<td>Sports Officiating</td>
<td>1-6(Spec)</td>
<td>F, Sp</td>
<td>Theoretical and practical experience in officiating high school sports. Fall: football, basketball, soccer; Spring: track and field, baseball, softball, volleyball; other sports on demand.</td>
</tr>
<tr>
<td>PES 365</td>
<td>Teaching and Coaching Tennis</td>
<td>3(3-0)</td>
<td>D</td>
<td>Foundations in tennis teaching methods; stroke analysis, strategies, physical and mental skill development, coaching responsibilities, and philosophies.</td>
</tr>
<tr>
<td>PES 366</td>
<td>Coaching of Track and Field</td>
<td>2(2-0)</td>
<td>F, Sp</td>
<td>Theory and techniques of coaching track. Prerequisite: PES 167 or permission of instructor.</td>
</tr>
<tr>
<td>PES 368</td>
<td>Coaching and Officiating of Wrestling</td>
<td>2(1-2)</td>
<td>Sp (Even Years)</td>
<td>Theory and techniques for coaching wrestling.</td>
</tr>
<tr>
<td>PES 370</td>
<td>Coaching of Basketball</td>
<td>2(2-0)</td>
<td>F, Sp</td>
<td>Theory and techniques of coaching men’s basketball. Prerequisite: PES 170 or permission of instructor.</td>
</tr>
<tr>
<td>PES 372</td>
<td>Coaching of Baseball</td>
<td>2(2-0)</td>
<td>F, Sp</td>
<td>Theory and techniques for coaching baseball. Prerequisite: PES 172 or permission of instructor.</td>
</tr>
<tr>
<td>PES 374</td>
<td>Coaching of Football</td>
<td>2(2-0)</td>
<td>F, Sp</td>
<td>Theory and techniques of coaching football. Prerequisite: PES 174 or permission of instructor.</td>
</tr>
<tr>
<td>PES 378</td>
<td>Coaching Volleyball</td>
<td>2(2-0)</td>
<td>F, Sp</td>
<td>Latest strategies and techniques in coaching volleyball. Prerequisite: PES 178 or permission of instructor.</td>
</tr>
<tr>
<td>PES 386</td>
<td>Special Physical Education</td>
<td>3(3-0)</td>
<td>F, Sp</td>
<td>Physical needs of the atypical individual, ameliorative effects of physical activity, school programs appropriate for exceptional children. Prerequisite: PES 315.</td>
</tr>
<tr>
<td>PES 387</td>
<td>Physical Education for the Physically Impaired</td>
<td>3(2-2)</td>
<td>F</td>
<td>Description of orthopedic and physical impairments. Interrelationships of physical, social, and emotional aspects. Development of activity experiences that are appropriate for specific impairments. Prerequisite: PES 386 or permission of instructor.</td>
</tr>
<tr>
<td>PES 390</td>
<td>Practicum in Physical Education</td>
<td>1-3(Spec)</td>
<td>F, Sp</td>
<td>During the practicum the student will apply concepts, principles, and methods learned in the classroom and laboratory situations to real world situations in a supervised environment. Prerequisite: PES 390 or permission of instructor.</td>
</tr>
</tbody>
</table>
Offers the student an opportunity to assist on the campus in the area of sports, dance, intramurals, or aquatics, etc. CR/NC only. Prerequisite: permission of the department chairperson.

PES 391 Independent Study 1-6(Spec) F, Sp
Independent research on a special problem or problems. CR/NC only. Prerequisite: permission of department chairperson.

PES 393 Field Study in Sport Management 1-4(Spec)
Provides exposure via experiences in select sport related organizations. Students enroll in 1 to 4 credits (45-180 clock hours to meet course requirements). Prerequisites: PES 190; prerequisite or corequisite: PES 320.

PES 401 Fundamentals of Motor Learning 3(3-0) F, Sp
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 406 Evaluation in Physical Education and Sport 2(2-0) F, Sp
Selection, criteria, methods, and procedures used in determining physical and health status. An interpretation of results by fundamental statistical procedures. Prerequisite: PES 315.

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) F
An introduction to methods of conducting research for the undergraduate student pursuing a profession in a health field. Prerequisites: ENG 101, ENG 201.

PES 483 Physical Education for the Mentally Impaired 3(2-2) Sp
Planning of movement experience appropriate for the mentally impaired, neurologically impaired, and emotionally disturbed. Prerequisite: PES 386 or permission of instructor.

PES 485 Theoretical Foundations of Strength and Conditioning 3(3-0)
Theory and application of physiological, biomechanical, psychological components of physical performance to analyze, develop and implement strength and conditioning programs. NSCA standards and guidelines. Prerequisite: PES/HSC 308.

PES 490 Practicum in Physical Education 1-3(Spec) F, Sp
Opportunity to work in the area of classroom experience, extra class activities, interscholastics, clubs, and organizations. CR/NC only. Prerequisites: application to the department chairperson must be made in the semester prior to the one in which affiliation credit is earned.

PES 495 Senior Seminar in Physical Education 1(1-0)
A capstone experience, prior to student teaching, designed to integrate required physical education subject matter through case study, discussion, role playing, and organization of materials. CR/NC only. Prerequisite: minimum of 90 semester hours completed.

PES 499 Internship in Sport Management 2-12(Spec)
Provides practical capstone experience in a select sport related organization. Students enroll in 2 to 12 credits (a minimum of 400 clock hours) to meet course requirements. Prerequisites: Completion of PES 320 (C or better) and PES 393 (C or better); minimum 86 semester hours credit of undergraduate degree work, and permission of the faculty 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. Prerequisites: PES 143 or permission of the instructor.

PES 550 Sport Fundraising 3(3-0) F, Sp
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) F, Sp
Practical and relevant information that is appropriate for interscholastic coaches. Includes eligibility for Program for Athletic Coaches Education (P.A.C.E.) 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) Su
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) Su
Coaching philosophy, new techniques and drills, practice organization, coaching duties, and strategy. Prerequisite: PES 372 or permission of instructor.

PES 574 Advanced Coaching of Football 2(2-0) Su
Study of recent changes and new trends in coaching of football.

PES 582 Current Applications of Athletic Training Techniques 2(1-2) D
Practical techniques in administering supportive wrapping, taping, and specified emergency procedures. Not open to students enrolled in Athletic Training minor. Prerequisite: PES 280 or PES 587 (in Athletic Training).

PES 592 Independent Reading 1(Spec) F, Sp, Su
For 600 and 700 level course descriptions consult the current Graduate Bulletin.

PES 602 Sport Management: Theory and Application 3(3-0) D
PES 603 Administration of Sport and Physical Education 3(3-0) D
PES 606 Motor Learning and Human Performance 3(3-0) D
PES 607 Physical Education on Curriculum Analysis 3(3-0) D
PES 610 Philosophy of Physical Education and Sport 3(3-0) D
PES 611 Psychology of Sport 3(3-0) D
PES 615 Analysis of Teaching in Education of Physical Education 3(3-0) D
PES 619 Continuing Registration for Final Research Project 1(1-0) F, Sp, Su
PES 620 Sport - An Interdisciplinary Study 3(3-0) D
PES 625 Facilities for Sport and Physical Education 3(3-0) D
PES 631 Physiology of Exercise 4(3-2) D
PES 640 Sport and the Law 3(3-0) D
PES 645 Financial Management of Sport 3(3-0)
PES 650 Sport Marketing 3(3-0) D
PES 660 Biomechanics 3(3-0) D
PES 667 Research Methods for Physical Education and Sport, Health and Recreation 3(3-0) F, Sp, Su
PES 672 Statistics for Physical Education and Sport, Health and Recreation 3(3-0) D
PES 689 Practicum 1-4(Spec) F, Sp, Su
PES 691 Independent Study 3(Spec) F, Sp, Su
PES 692 Field Study in Physical Education and Sport 1-6(Spec) F, Sp, Su
PES 696 Seminar in Physical Education 2(2-0) D
PES 698 Thesis 1-6(Spec) F, Sp, Su
PES 699 Internship in Sport Administration 3-6(Spec) F, Sp, Su
PES 701 Advanced Independent Reading 1-2(Spec) F, Sp, Su
PES 791 Independent Study 2(Spec) D

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are the following: PES 592, 595, 690, 693, 696, 703.

Physician Assistant (PHA)

The complete description of the Physician Assistant Program is found in the School of Rehabilitation and Medical Sciences in the Herbert H. and Grace A. Dow College of Health Professions.

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 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)
Philosophy (PHL)

The complete description of the philosophy program is found in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: PHL 318.

PHL 100 Introduction to Philosophy 3(3-0) F, Sp
Study of the basic issues and methods of philosophy. Depending on instructor, it may have either a problem or a historical orientation. (Group IA)

PHL 105 Critical Reasoning in Everyday Life 3(3-0) F, Sp
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) F, Sp
Study of basic moral problems and proposed solutions to problems associated with violence, oppression, prejudice, and sex. (Group IA)

PHL 140 Introduction to Logic 3(3-0) F, Sp
A study of modern formal logic, with the emphasis of the development of general procedures for deciding whether any argument is correct. (Group IB)

PHL 190 The Nature of Science 3(3-0) D
A study of the nature of science and the philosophical problems which arise in connection with the natural and/or social sciences.

PHL 200 History of Philosophy: Classical Period 3(3-0) F
Survey of ancient Greek philosophy, with emphasis on Plato and Aristotle.

PHL 205 American Philosophy 3(3-0) D
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 216 Ethical Theory 3(3-0) F, Sp
The following problems will be discussed: What is the good life? Is there any such thing as right and wrong? Can we justify our moral beliefs? (Group IA)

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) F, Sp
God, immortality, and human destiny from the philosophical point of view. (Group IA)

PHL 286 Philosophy in Literature 3(3-0) D
Philosophical themes in selected literary works from ancient, medieval, modern, or contemporary sources.

PHL 297 Special Topics In Philosophy 1-12(Spec) D
Study of areas in philosophy not included in courses currently listed in catalog.

PHL 300 History of Philosophy: Medieval Period 3(3-0) D
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) Sp

PHL 305 Chinese Philosophy 3(3-0) D
A survey of Chinese philosophy from the earliest times to the modern period, with emphasis on major thinkers and schools. (Group IV-B)

PHL 307 Existentialism: From Kierkegaard to Sartre 3(3-0) D
Introduction to the problems, methods, and history of existential thinking through the main texts of contemporary existentialism.

PHL 318 Business Ethics 3(3-0) F, Sp
Application of ethical principles to business issues as fair competition, employee obligations, and business’s responsibilities to stockholders, customers, employees, community, and society. Prerequisites: none.

PHL 320 Theory of Knowledge 3(3-0) F
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) Sp
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. (Group IV-A)

PHL 340 Intermediate Logic 3(3-0) D
First order quantification theory 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) Sp
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: introductory history, political science or sociology course, or permission of instructor. (Group IV-C)

PHL 375 Philosophy of Social Science 3(3-0) D
Comparison and analysis of the methods used in the social and natural sciences paying particular attention to the underlying philosophical assumptions. Prerequisites: one course in Group II or Group III in the University Program; or permission of instructor.

PHL 390 Philosophy of Science 3(3-0) D
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; or permission of instructor.

PHL 397 Special Topics In Philosophy 1-12(Spec) D
Study of areas of philosophy not included in courses currently listed in catalog. Prerequisite: 3 hours of philosophy or permission of instructor.

PHL 403 History of Philosophy: Nineteenth Century 3(3-0) D
Analysis of philosophical texts selected from the work of thinkers such as Hegel, Marx, Kierkegaard, and Nietzsche. Prerequisites: at least three (3) credit hours in the history of philosophy, or permission of instructor.

PHL 404 History of Philosophy: Contemporary Period 3(3-0) D
A study of some of the important philosophical trends since 1900. Prerequisite: at least three (3) credit hours in the history of philosophy, or permission of instructor.

PHL 405 Major Philosophers 3(3-0)
An in-depth study of a major philosopher. Prerequisite: at least one of the following: PHL 200, PHL 300, PHL 302, PHL 403, PHL 404; or permission of instructor.

PHL 410 Philosophy of Law 3(3-0) D
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) D
An advanced study of contemporary moral theory, meta-ethics, and the methodology of constructing and evaluating ethical theories. Prerequisite: PHL 218, or permission of instructor.

PHL 421 Philosophy of Language 3(3-0) D
Study of structure of language, relations between language and reality, and interrelations among language, thought, and culture. Prerequisite: PHL 100, PHL 140; or permission of instructor.

PHL 422 Political and Social Philosophy 3(3-0) D
Study of the ethical and political problems confronting the individual and society.

PHL 426 Feminist Theory 3(3-0) F
Examines the way women have been described by Western philosophical tradition from its beginnings to the present and offers alternative analyses to this tradition. Identical to WST 426 and PSC 426. Credit may not be earned in more than one of these courses. Prerequisites: permission of instructor, or at least junior standing and either one course in philosophy or one of the following courses: PSC 275, PSC 326, PSC 371, PSC 373, or PSC 378.

PHL 450 Phenomenology a Survey 3(3-0) D
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 or permission of instructor.

PHL 480 Philosophy of the Arts 3(3-0) D
Studies in the experience of arts and discussion of traditional and contemporary esthetics.

PHL 490 Senior Seminar 3(3-0) Sp
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) D
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) D
Prerequisite: permission of instructor.

PHL 516 Professional Ethics 3(3-0) D
An examination of the theories and methods used in ethical decision-making, with application to common issues in law, journalism, technology, research, education, and the health professions. Prerequisites: junior status or permission of instructor.

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 or permission of the instructor.

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) D
Selected studies of one or more philosophic works. Prerequisite: permission of instructor.

Credit Limitation. PHL597, 598 are subject to graduate credit limitation under the policy covering unspecified content or variable credit.

Physical Science (PHS)
The complete description of Physical Science is found in the Department of Physics in the College of Science & Technology.

Descriptions of courses approved for the University Program appear in italic type.

PHS 101 Survey of Physical Science 3(3-0) F, Sp
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. (Group II-B)

PHS 151 Introductory Physical Science I 3(2-2) F, Sp
Introduction to the concepts and methods of physical science. Focusing on the physical science of solid matter, students are encouraged to draw conclusions from desk-top experiments. Recommended for prospective elementary, special education, and middle school teachers. Satisfies University Program Group II laboratory requirement. (Group II-B)

PHS 165 Horizons in Physical Science 1-6(Spec) D
Student-selected topics for the non-science student. Topics such as Stonehenge, energy conservation in the home, announced in the Course Offering Guide. No credit toward major or minor.

PHS 251 Introductory Physical Science II 3(2-2) Sp
Continuation of PHS 151. The physical science of solid matter with emphasis on models of atoms and molecules. Prerequisite: PHS 151 or equivalent.

PHS 351 Physical Science for the Elementary Grades 3(2-2) Sp
For teachers of grades one to six and junior high school general science teachers. Prerequisite: PHS 251.

PHS 365 Topics in Physical Science 1-6(Spec) D
Topics not ordinarily covered in regular courses. Prerequisite: permission of instructor.

PHS 371 Musical Acoustics 3(2-2) F, Sp
The physical basis of sound and music, sound reproduction, and auditorium acoustics. Satisfies University Program Group II laboratory requirement. Intended for students with some background in music. (Group II-B)

PHS 452 Physical Science for the Middle Grades 3(2-2) F, Sp
Physical Science using investigative/laboratory approach. Structured to give additional depth in subject matter used in middle school: motion, matter, energy, astronomy, electricity, nuclear energy. Prerequisites: PHY 101; CHM 132.

PHS 453 - Field Experience in Teaching Physical Science 1(Spec) F
Supervised experience in high school/middle school physical science. Experience will include observation, participation in instruction, and critical analysis of the experience. CR/NC only. Corequisite: PHS 452.

PHS 522 Workshop for Physical Science 3(2-2) D
Development of units for use in the teaching of physical science, including the preparation of simple equipment for science demonstrations. Course designed primarily for teachers K-8. Prerequisite: PHS 251 or equivalent.

PHS 551 History and Literature of Physical Science 3(3-0) D
Physical science in western civilization, emphasizing the scientific revolution and reaching back to the middle ages and the ancient world. Prerequisite: PHS 251 or equivalent.

PHS 553 Physical Science Practicum 2-6(Spec) F, Sp
Practical experience in observation and teaching of investigative approaches to physical science under supervision of an experienced instructor. Prerequisite: permission of instructor.

PHS 563 Physical Science Practicum 2-6(Spec) F, Sp
Practical experience in observation and teaching of investigative approaches to physical science under supervision of an experienced instructor. Prerequisite: permission of instructor.

PHS 565 Selected Topics in Physical Science 1-6(Spec) D
Topics not ordinarily covered in regular courses. Prerequisite: permission of instructor.

PHS 590 Independent Study 1-6(Spec) D
Individual study in an area not covered by regular courses. Prior permission of the instructor must be obtained.

Credit Limitation. Courses in Physical Science that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: PHS 563, 565, 590.

Physics (PHY)
The complete description of the Department of Physics is found in the College of Science & Technology.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: PHY 100.

PHY 100 Conceptual Physics 3(3-0) F, Sp
An exploration of physical concepts; their social and philosophical implications; and the utility and limitations of physics for solution of problems in the modern world. The mathematical level will be that of beginning high school algebra. Not intended for potential science majors. (Group II-B)

PHY 110 Physics of Sports 3(3-0) F, Sp
For students interested in the physics of motion. Covers velocity, acceleration, force and momentum, as related to physical activity. (Group II-B)

PHY 127 Table Top Physics 1(0-2) F, Sp
Laboratory experience for students in PHY 100, PHY 110, or PHS 101. Hands-on group laboratory exercises investigate the nature of physics. Satisfies University Program Group II laboratory requirements. Pre or co-requisites: PHY 100, PHY 110, or PHS 101. (Group II-B)

PHY 130 College Physics I 4(4-0) F, Sp
Mechanics, heat, kinetic theory, and sound. The mathematics used is algebra and trigonometry. The sequences PHY 130-131, PHY 170-171 satisfy minimum requirements for medical and dental schools. Prerequisites: MTH 106 or equivalent. (Group II-B)

PHY 131 College Physics II 4(4-0) F, Sp
A continuation of PHY 130 that covers the topics of electricity, magnetism, optics and modern physics. Prerequisite: PHY 130.

PHY 145 University Physics I 4(4-0) F, Sp
Normally the first physics course for majors and minors. Mechanics of single and many-particle systems, conservation laws, statistical concepts, and gravitational interaction. Corequisites: MTH 136 (or MTH 132) or equivalent. (Group II-B)

PHY 146 University Physics II 4(4-0) F, Sp
Electromagnetic interaction, electrical circuits, electromagnetic radiation, and optics. Not open to those with credit in PHY 131. Prerequisite: PHY 145. Corequisites: MTH 137 (or MTH 135) or equivalent.

PHY 170 College Physics Laboratory I 1(0-2) F, Sp
Experimental techniques of physics introduced by studying quantitative situations through error analysis, graphical analysis, small computer calculations, and linear measurements. Satisfies University Program Group II laboratory requirement. Corequisite: PHY 130. (Group II-B)

PHY 171 College Physics Laboratory II 1(0-2) F, Sp
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) F, Sp
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. (Group II-B)

PHY 176 University Physics Laboratory II 1(0-2) F, Sp
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) F
Static force systems in two and three dimensions. Composition and resolution of forces; application of the principles of equilibrium; calculation of moments; analysis of contact forces. Does not count toward a physics major or minor. Corequisites: PHY 145; MTH 137, or MTH 133, MTH 223.

PHY 231 Electronic Instrumentation 1(0-3) Sp
Measuring instruments and techniques encountered in an electronics laboratory. An understanding of basic electric circuitry is assumed. Prerequi-
PHY 233 Network Analysis I 3(3-0) F
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; MTH 137 or both MTH 133, MTH 223.

PHY 234 Network Analysis II 3(3-0) Sp

PHY 247 Introduction to Modern Physics 4(4-0) F, Sp
Atomic structure, elementary quantum theory, radioactivity, nuclear phenomenology, elementary particles, introduction to the solid state. Prerequisite: PHY 146 or permission of instructor.

PHY 277 University Physics Laboratory III 1(0-3) F, Sp
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) F

PHY 313 Intermediate Theoretical Physics II 3(3-0) D
A continuation of PHY 232 using additional advanced techniques. Prerequisite: PHY 312 or permission of instructor.

PHY 322 Intermediate Mechanics 3(3-0) F
Newtonian mechanics of particles and systems of particles. Conservation theorems, gravitation, oscillations, Lagrangian and Hamiltonian dynamics, central force motion, two-particle collisions. Prerequisites or corequisites: PHY 247; MTH 233, MTH 334.

PHY 332 Electricity and Magnetism 3(3-0) Sp
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) F
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) Sp
Introduction to equilibrium thermodynamics and elementary statistical mechanicals. Prerequisite: PHY 312, PHY 322.

PHY 490 Independent Study 1-3(Spec) F, Sp
Individual study in an area not covered by regular courses. Open to physics majors or minors with at least junior standing who have obtained permission of the instructor.

PHY 505 Teaching Chemistry and Physics in the Secondary School 3(3-0) Sp
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 or equivalent.

PHY 507 Field Experience in Teaching Chemistry/Physics 1(Spec) Sp
Supervised experience in high school chemistry and/or physics classes. Experience will include observation, participation in instruction, and critical analysis of the experience. Identical to CHM 507. Credit may not be earned in more than one of these courses. CR/NC only. Corequisites: CHM/PHY 505 or equivalent.

PHY 517 Computational Physics 3(3-0) F (Odd Year)
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, and a basic knowledge of a programming language such as FORTRAN. Co-requisite or prerequisite: PHY 442.

PHY 533 Electromagnetic Waves 3(3-0) D
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) Sp (Odd year)
Radioactive transformations, detection of radiation, methods of producing high-speed particles, nuclear structure, fission, cosmic radiation and applications of radioactivity. Prerequisite: PHY 247.

PHY 554 Optics 3(3-0) F (Even year)
Geometrical and physical optics; electromagnetic theory of light, interference and diffraction from the standpoint of Huygens principle and polarized light. Prerequisite: PHY 247.

PHY 556 Solid State Physics 3(3-0) Sp (Even year)
Atomic, molecular and crystal structure, energy levels of electrons, and binding energies in molecules and solids. Prerequisites: PHY 322, PHY 332.

PHY 578 Experimental Physics 2-4(Spec) Sp
Selected experiments utilizing the techniques of modern experimental physics. May be retaken for up to 4 hours of credit. Prerequisite: PHY 277 or equivalent.

PHY 580 Special Topics 1-8(Spec) D
Topics not ordinarily covered in regular courses. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

PHY 614 Methods of Theoretical Physics 3(3-0) D
PHY 619 Continuing Registration for Final Research Project 1(1-0)
PHY 624 Advanced Mechanics 3(3-0) F (Odd Year)
PHY 634 Advanced Electricity and Magnetism 3-3(0) Sp (Even Year)
PHY 643 Quantum Mechanics I 3(3-0) F (Even Year)
PHY 644 Quantum Mechanics II 3(3-0) Sp (Odd Year)
PHY 685 Seminar: Contemporary Physics 1-4(Spec) F, Sp
PHY 780 Topics in Physics 1-9(Spec) D
PHY 790 Independent Study 1-3(Spec) F, Sp
PHY 798 Thesis 1-6(Spec) F, Sp
Credit Limitation. Courses in Physics that are subject to graduate credit under the policy covering unspecified content or variable credit are: PHY 578, 580, 685, 780, 790.

Political Science (PSC)
The complete description of the Department of Political Science is found in the College of Humanities and Social & Behavioral Sciences.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: PSC 105, 210, 371, 411, 522, 551.

PSC 100 Introduction to Political Science 3(3-0) F, Sp
Historical and theoretical concepts of political science, required for all political science majors and minors. Does not substitute for PSC 105. (Group III-B)

PSC 101 Political Behavior 3(3-0) F, Sp
Focus is on the elements of individual political behavior. Includes socialization; political involvement, commitment and participation; voting behavior; and political opinion and personality. (Group III-A)

PSC 105 Introduction to American Government and Politics 3(3-0) F, Sp
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. (Group III-B)

PSC 125 - African-American Politics 3(3-0) F, Sp
Examines issues of political economy, political participation, political efficacy and alienation, Black Nationalism and Pan-Africanism. (Group IV-C)

PSC 150 World Politics 3(3-0) F, Sp
Introductory conceptual analysis of international politics: North-South relations; and major areas of tension in Latin America, Africa, Middle East, and Asia. (Group III-B)

PSC 151 The U.S. and the World 3(3-0)
To prepare the student to confront, in a systematic fashion, the issues to be faced as a citizen of the United States and as a member of the global society. (Group III-B)

PSC 210 Introduction to Public Administration 3(3-0) F, Sp
Provides a broad understanding of basic concepts and principles of public administration, including role, structure, and functions of public agencies and how they operate. Prerequisite: PSC 100 or PSC 105 or permission of instructor.

PSC 224 Introduction to Public Law 3(3-0)
Origins, evolution, and processes of public law in the United States. Recommended: PSC 100 or PSC 105.

PSC 235 Politics and Personality 3(3-0) F
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) F, Sp
An examination of relevant theories, concepts, and methods of comparative political analysis and application of these in the study of selected political systems. (Group III-B)
PSC 261 State and Local Government 3(3-0) F
Structure and functions of state, county, and city governments, with emphasis on policy issues. Michigan governments are used for illustrations and examples. (Group III-B)

PSC 275 Great Political Thinkers 3(3-0)
Discussion of vital issues in the history of Western political thought, such as freedom, justice, equality, and power. Authors include Plato, Aristotle, Machiavelli, Rousseau, Marx. Prerequisites: none. (Group I-A)

PSC 280 Introduction to Empirical Methods of Political Research 3(3-0) F
Empirical political research techniques including the scientific method, measurement, descriptive and inferential statistics, literature reviews, data collection, computer assisted data analysis, and research reporting. Prerequisites: PSC 109 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) F
Analysis of Michigan’s legislative process, policy issues, and state government policies. 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) Sp
This course provides 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) Sp
Analysis of the legislative process, studying formal and informal devices used by legislative bodies in determining policy. Primary emphasis is on the United States Congress. Prerequisites: PSC 105 or permission of instructor.

PSC 321 The American Chief Executive 3(3-0) F
Development of the executive office of the United States, with emphasis on the Presidency.

PSC 322 American Parties and Politics 3(3-0) F
Analysis of American political parties as instruments of democratic government. Their structures, functions, and organizations, with emphasis on nomination, campaigns, and elections.

PSC 325 The Civil Rights Movement 3(3-0) F, Sp
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: introductory history, political science or sociology course, or permission of the instructor. (Group IV-C).

PSC 326 Women and Politics 3(3-0) Sp
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. Prerequisites: introductory history, political science or sociology course, or permission of the instructor. (Group IV-C).

PSC 327 Lobbying and Interest Group Behavior 3(3-0) Sp
The reasons for and the methods of lobbying constitute the major subjects. Also includes the identification of different lobbyists, their goals, behavior, and organizations.

PSC 328 Campaigns and Elections 3(3-0)
Study of campaigns and elections in the United States, including candidate emergence and nominations, campaign organization and strategy, election results, and electoral reform. Prerequisite: PSC 101 or 105.

PSC 340 African Political Systems and Processes 3(3-0) F
Comparative survey of selected African political systems with focus upon Sub-Saharan Africa. (Group IV-B)

PSC 341 Comparative Politics: Eastern Europe 3(3-0)
Comparative analysis of selected Eastern European states, including Poland, Czech Republic, Hungary, former Yugoslavia, Romania, Bulgaria. Identical to EUR 303. Credit may not be earned in more than one of these classes. (Group IV-B)

PSC 342 Comparative Immigration Politics 3(3-0) Sp
Politics, history, and economics of immigration and immigrant-native relations in the United States (including Michigan) and selected countries. Particular focus on causes of nativism.

PSC 343 Southeast Asian Political Systems and Processes 3(3-0) F
The impact of culture on politics in several countries of Southeast Asia, including Vietnam, Laos, Cambodia, Thailand, Burma, Malaysia, Indonesia, Singapore, Brunei and Philippines. (Group IV-B)

PSC 344 East Asian Political Systems and Processes 3(3-0) Sp
Emphasis on selected states in East Asia. East Asia consists of China, Japan, and Korea. (Group IV-B)

PSC 347 Comparative Politics: Western Europe 3(3-0) F
Comparative analysis of selected European states, including Great Britain, France, Italy and Germany. (Group IV-B)

PSC 348 Latin American Political Systems 3(3-0) F
A comparative analysis of selected Latin American political systems, analyzing the impact of authoritarianism, international intervention, and democratization. (Group IV-B)

PSC 349 Panama: Exploring Politics and Society in a Central American Nation 3(3-0)
A short term (three weeks) faculty-led study abroad program exploring the politics, society, and culture of Panama. Prerequisites: complete minimum of 25 credits of university course work and a minimum 2.5 GPA. (Group IV-B)

PSC 351 International Relations 3(3-0) F, Sp
Classical and contemporary theories of international relations. War, terrorism, and genocide. International law and organizations. Global economics and world poverty. Ethics in international relations.

PSC 352 US - Latin American Relations 3(3-0)
An examination of the political, military, and economic relations between Latin America and the United States.

PSC 371 American Political Thought 3(3-0) F
Selective survey of dominant trends in American political thought from the revolutionary era to the present. (Group I-A)

PSC 372 American Radical Thought 3(3-0) F
Study and analysis of the left social revolutionary ideologies of the left during the past 100 years in the United States.

PSC 373 American Individualism 3(3-0)
Integrates methods of social sciences and humanities in developing interdisciplinary analyses of the history, content, variety and normative implications of American Individualism. (Group IV-A)

PSC 375 Socialism, Fascism, and Liberalism 3(3-0)
Political and psychological analyses of socialist, fascist, and liberal ideologies. (Group IV-A)

PSC 378 Modern Democratic Theory 3(3-0)
Exploration of modern arguments for and against liberal democracy and discussion of the future of liberal democracy in the U.S. and elsewhere. (Group I-A)

PSC 390 Independent Study 1-6(Spec)
Directed reading or research on an approved topic. Open to students not on academic probation and who shall have completed 12 semester hours in political science, with the permission of the instructor.

PSC 395 Internship in Government and Politics 1-12(Spec)
An integrative learning experience where students apply textbook knowledge to governmental and public affairs work experience. CR/NC only. Prerequisite: permission of instructor.

PSC 398 Special Topics in Political Science 1-9(Spec)
Consideration of subject manner not included in courses currently listed in catalog. May be taken more than once.

PSC 405 Methods for Teaching Political Science 3(3-0) Sp
Lesson plans, objectives evaluations, organization and methods of teaching government and politics. Three weeks of mid-tier experiences. Prerequisites: completion of at least 15 hours of political science course work; at least junior status; or permission of instructor.

PSC 411 Public Sector Human Resources and Organization Theory 3(3-0) F
Seminar on human resource management (personnel administration) and organizational theory in public agencies including hiring, developing, and rewarding employees; and structuring and designing organizations. Prerequisites: PSC 105 or PSC 210 and 56 semester hours completed.

PSC 421 Constitutional Law: Powers of Government 3(3-0) F
Examines major U.S. Supreme Court decisions concerning judicial review, separation of powers, federalism, fiscal and commerce powers, and economic liberties.

PSC 422 Constitutional Law: Civil Rights and Liberties 3(3-0) Sp
Examines major U.S. Supreme Court decisions regarding the First Amendment, criminal procedure, racial and gender equality, and the right to privacy.

PSC 426 Feminist Theory 3(3-0)
Examines the way women have been described by the Western philosophical tradition from its beginnings to the present and offers alternative analyses to this tradition. Identical to WST 426 and 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.

PSC 453 American Foreign Policy 3(3-0) Sp
Analyzes the external interests of the United States and how they are pursued.

PSC 514 American Public Policy Making 3(3-0) F
This course serves to integrate political institutions and levels of government in terms of policy development and implementation.
PSC 515 Comparative Public Policy 3(3-0)
Techniques of cross-national and other comparative policy analysis applied to social and economic policies of industrialized nations, especially Western Europe.

PSC 516 Environmental Politics and Policy 3(3-0)
Analysis of relationships between politics and public policy in the environmental arena. Emphasis upon policy making process, political strategies, and alternative decision modes. Prerequisites: completion of minimum of 56 credit hours of university course work, or permission of instructor.

PSC 520 American National Government and Politics 3(3-0) Sp
This course will examine the major theoretical frameworks used in the study of American national government and politics and survey current research in the area. Prerequisites: minimum of 9 hours of political science coursework, including PSC 105, or permission of instructor.

PSC 522 Regulatory Processes and Administrative Law 3(3-0)
Survey of the principles of administrative law and the politics of the U.S. regulatory processes.

PSC 540 Cultural Heritage and Politics of Eastern Europe 3(3-0)
Comparative study of political systems of Soviet bloc countries and Yugoslavia.

PSC 551 Seminar in International Relations 3(3-0) Sp
Significant aspects of international relations on the basis of timeliness and importance.

PSC 555 International Law I 3(3-0) F
Processes of international law; role in international relations and organizations; effects on individual rights in peacetime through cases, treaties, customs, and legal rules.

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 565 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 565S Managing Modern Local Government 3(3-0)
Covers all aspects of local government. Simulated problem solving in local administration. Prerequisite: a course in local government.

PSC 566 Intergovernmental Relations in the United States 3(3-0)
An analysis of the administrative and fiscal relationships between the national, state, and local governments, with emphasis on grants-in-aid and revenue sharing.

PSC 583 Survey Research 3(3-0)
Development and utilization of quantitative data, with emphasis on behavioral research, public opinion polling, and statistical analysis.

PSC 585 Computer Applications for Public Administrators 3(3-0)
Approach public administrators applied public sector information systems, and the role that computers play in the management of information in a democracy. Prerequisites: undergraduate computer skills, such as CPS/BIS 106 and CPS/BIS 107; PSC 210; or permission of the instructor.

PSC 590 Independent Study 1-6(Spec) 
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 598 Special Topics in Political Science 1-12(Spec)
Subject matter not included in courses currently listed in Bulletin.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

PSC 610 Foundations of Public Administration 3(3-0) F
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 and Economic Systems 3(3-0)
PSC 710 Seminar on Public Bureaucracies and Policy Formation 3(3-0)
PSC 711 Public Personnel Administration Practice 3(3-0) Sp
PSC 712 Implementation and Reform of Public Programs 3(3-0)
PSC 713 Public Budgeting and Finance 3(3-0) F
PSC 714 Program Analysis and Evaluation 3(3-0) Sp
PSC 740 Seminar in Comparative Politics 3(3-0) Sp
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 Organizational Theory in Public Administration 3(3-0) Sp
PSC 780 Research in Public Administration in Political Science 3(3-0)
PSC 785 Strategic Leadership 3(3-0)
PSC 790 Advanced Readings I 1-6(Spec)
PSC 795 Internship in Public Administration 1-6(Spec)
PSC 796 Applied Research in Public Administration 3(3-0)
PSC 798 Thesis 1-6(Spec)

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: PSC 590, 598, 770, 790, 795.

Psychology (PSY)

The complete description of the Department of Psychology is found in the College of Humanities and Social & Behavioral Sciences.

Credit Limitation. For undergraduate courses with unspecified content such as 200, 400, 496, 497, 498, 500, 501, 502, the total number of credit hours shall be limited to 9 hours on the major and 6 hours on the minor, with no more than 3 hours of any one of these courses credited in either the major or minor.

Distance Learning Courses. Courses in the department approved for offering in a distance learning format include: PSY 100, 220, 250, 324, 330, 334, 336, 459W.

Descriptions of courses approved for the University Program appear in italic type.

PSY 100 Introduction to Psychology 3(3-0)
Survey of concepts, methods, and fields of psychology. (Group III-A)

PSY 200 Special Issues: Title to be listed 1-12(Spec) 
Subjects of contemporary psychology not covered by regular curriculum. Prerequisites: permission of instructor.

PSY 211 Introduction to Psychological Statistics 3(3-0)
Basic descriptive and inferential statistics are considered, including measures of central tendency and variability, the normal distribution, the t-test, correlation, and chi-square. Prerequisite: PSY 100.

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.

PSY 225 Foundations of Cognitive Science 3(3-0)
Introduction to cognitive science, the problems it addresses, its evolving models of the mind, its interdisciplinary nature, and its broader ramifications. Identical to PHL 225. Credit may not be earned in more than one of these courses. (Group IV-A)

PSY 250 Abnormal Psychology 3(3-0)
Nature, causes, and treatment of mental disorders. Prerequisite: PSY 100.

PSY 285 Research Methods 3(3-0) 
An introduction to the various research methodologies in psychology. Prerequisites: PSY 100; PSY 211 with a grade of C or better.

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. Prerequisite: PSY 220 or permission of instructor.

PSY 324 Childhood and Adolescence 3(3-0)
Developmental psychology from childhood through the collegiate years. Main topics are personality, social, and cognitive development. Prerequisite: PSY 220.

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. Prerequisite: PSY 100, PSY 220; or permission of instructor.

PSY 330 Social Psychology 3(3-0)
Empirical approach to understanding individual social behavior. Deals with the person and the social environment with a focus in attitudes, interpersonal behavior, and group processes. Prerequisite: PSY 100.

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. (Group IV-A)

PSY 334 Psychology of Women 3(3-0)
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. Prior written approval by faculty sponsors required. Prerequisites: PSY 211, PSY 285, with grades of B or better; overall GPA of 3.00.

**PSY 500 Special Issues: Title to be listed 1-12 (Spec)**
Subjects of contemporary psychology not covered by regular curriculum. Prerequisites: permission of instructor.

**PSY 501 Workshop: Title to be listed 1-18 (Spec)**
Study of problem-oriented subjects for persons already working in psychological services with the intent of continuing their professional growth. Prerequisite: permission of instructor.

**PSY 502 Teaching Assistant in Psychology 1-3(Spec)**
Development of practical skills for effective teaching of psychology. No more than 3 hours of PSY 502 may be applied to a student's psychology major or minor. Prerequisite: permission of instructor.

**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. Prerequisite: none.

**PSY 510 Principles of Psychological Measurement 3(3-0)**
Problems and procedures in scaling and in correlational methods related to testing reliability, validity, and measurement error. Prerequisite: PSY 310, PSY 211 or equivalents.

**PSY 511 Statistics in Psychology 3(3-1)**
An extension of topics introduced in PSY 211, with emphasis upon hypothesis testing and statistical inference. Prerequisite: PSY 211 or equivalent.

**PSY 531 Group Dynamics 3(3-0)**
Conceptual and empirical background in the dynamics of face-to-face groups and related interpersonal areas. Emphasis is cognitive-theoretical rather than experiential. Prerequisite: PSY 330 or equivalent.

**PSY 532 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 considered. Prerequisites: junior or higher standing; PSY 330 or SOC 201; a social science methods class; or permission of instructor.

**PSY 534 Psychology and the Courtroom 3(3-0)**
The application of psychological principles and theories to the courtroom. Prerequisites: coursework in basic statistics (e.g., PSY 211) and research methods (e.g., PSY 285); graduate standing; or permission of instructor.

**PSY 535 Organizational Psychology 3(3-0)**
The study of organizations as complex social systems with analyses of individual and group behavior in organizations and responses of organizations to their environment. Prerequisite: PSY 336 or graduate standing or permission of instructor.

**PSY 536 Personnel Psychology 3(3-0)**
This course examines the identification, measurement, and development of individual differences, and job systems related to individual differences within organizations to improve job performance and satisfaction. Topics include job analysis, criterion development, personnel selection, training, and performance evaluation. Prerequisites: PSY 336 or permission of instructor, or graduate standing; PSY 211 is recommended.

**PSY 537 Organizational Behavior Management 3(3-0)**
Behavior analysis in business, industry, and human service settings. Applied research in organizations is emphasized. Empirical rather than theoretical approach. Prerequisites: PSY 336 or PSY 370 or PSY 384 or graduate standing or permission of instructor.

**PSY 544 Theories of Personality 3(3-0)**
Theories regarding the structure and functions of personality. Prerequisite: PSY 250.

**PSY 555 Psychopathology of Children 3(3-0)**
Problems of children deviating from the norm in behavior and adjustment. Recommended: PSY 220, PSY 250 or equivalent.

**PSY 559 Rehabilitation Psychology 3(3-0)**
Psychological concepts in understanding physical disability from the perspectives of the individual, family and society will be emphasized. Designed for advanced students in health professions. Prerequisites: PSY 100 and PSY 220; or graduate standing.

**PSY 562 Therapeutic Intervention: Foundations 3(3-0)**
Foundational skills for therapeutic intervention including theory and technique. Prerequisite: PSY 350 or graduate standing or permission of instructor.

**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 behavior analysis and social learning in medicine, dentistry, and physical health. Prevention, treatment, and long-term maintenance are all considered. Prerequisite: PSY 384 or PSY 370 or permission of instructor or graduate standing.

**PSY 583 Motivation and Emotion 3(3-0)**
- Survey of the theories, systems and concepts of motivation and emotion. Prerequisite: 15 hours of psychology; graduate standing; or permission of instructor.

**PSY 584 Cognitive Neuroscience 3(3-0)**
- Converging evidence from human neuroanatomy and neurophysiology, cognitive psychology, neuropsychology, and neuroimaging research will be examined for topics in attention, perception, memory, language, and emotion. Prerequisites: PSY 387 or permission of instructor or graduate standing.

**PSY 585 Psychophysiology 3(3-0)**
- Introduction to psychophysiological methods, measures, and applications. Topics include: basic neuroanatomy and neurophysiology; electrophysiological recording; inference using brain, cardiovascular, somatic measures; biofeedback; ergonomic, and other applications. Prerequisite: PSY 387 or permission of instructor or graduate standing.

**PSY 586 Applied Behavioral Analysis in Education 3(3-0)**
- Behavior modification techniques in the areas of motivation, elimination of undesirable behaviors, promotion of academic participation, and definition of behavioral objects. Prerequisites: PSY 100 or equivalent, and upper-division or graduate standing.

**PSY 587 Physiological Psychology 3(3-0)**
- Physiological events which underlie human and animal behavior. Prerequisite: PSY 387 or graduate standing.

**PSY 588 Functional Neuroanatomy 3(3-0)**
- Function of the nervous system in behavior. Includes a laboratory analysis of current research topics and procedures. Prerequisites: PSY 100 or graduate standing.

**PSY 589 Cognitive Psychology 3(3-0)**
- Introduction to cognitive processes; survey of theory and research in memory, thinking, concept formation, problem solving, and language. Prerequisites: PSY 383 or permission of instructor.

*For 600 and 700 level course descriptions consult the current Graduate Bulletin.*

**PSY 600 Special Issues: Title to be listed 1-12(Spec)**

**PSY 605 Assessment of Affective and Behavioral Disorders of Children and Youth 3(3-0)**

**PSY 609 History and Systems of Psychology 3(3-0)**

**PSY 611 Research Design 3(3-0)**

**PSY 612 Applied Multiple Regression and Correlation 3(3-0)**

**PSY 613 Multivariate and Correlational Methods 3(3-0)**

**PSY 619 Continuing Registration for Final Research Project 1(1-0)**

**PSY 624 Advanced Developmental Psychology 3(3-0)**

**PSY 630 Advanced Social Psychology 3(3-0)**

**PSY 636 Organizational Applications of Personnel Psychology 3(3-0)**

**PSY 641 Objective Personality Assessment 3(2-2)**

**PSY 642 Clinical Research Methods 3(3-0)**

**PSY 651 Projective Assessment 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 Education of Children with Learning Disabilities 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 in General Psychology 1-3(Spec)**

**PSY 696 Directed Research 1-12(Spec)**

**PSY 697 Independent Study 1-8(Spec)**

**PSY 700 Special Issues: (title to be listed) 1-12(Spec)**

**PSY 724 Psychology of Aging 3(3-0)**

**PSY 727 Developmental Neuropsychology 3(3-0)**

**PSY 736 Strategies for Intervention in Social Systems 3(Spec)**

**PSY 737 Seminar in I/O Psychology (Content Area) 3-12**

**PSY 751 Psychopathology 3(3-0)**

**PSY 760 Seminar: School Services 3(3-0)**

**PSY 765 Seminar: Ethics and Professional Issues 3(3-0)**

**PSY 766 Seminar: Consultation Skills 3(Spec)**

**PSY 767 Assessment and Intervention for Developmental Disabilities 3(3-0)**

**PSY 780 Behavior Therapy 3(2-2)**

**PSY 781 Seminar: Perception 4(Spec)**

**PSY 785 Seminar: Cognitive-Behavior 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 900 Internship A: Professional Services 3-6(Spec)**

**PSY 991 Internship B: Professional Services 3-6(Spec)**

**Credit Limitation.** Courses in the Department that are subject to credit limitation under the policy covering unspecified content or variable credit are: PSY 200, 400, 496, 497, 498, 500, 501, 500, 506, 696, 697.

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## Physical Therapy (PTH)

The description of the Physical Therapy Program is found in the School of Rehabilitation and Medical Sciences in the Herbert H. and Grace A. Dow College of Health Professions.

**PTH 525 Clinical Measurement in Physical Therapy 1(0-2)**
- Theory and concepts central to credible clinical measurement procedures. Extensive laboratory practice of the most frequently used clinical measurement techniques. Prerequisites: Admission to the Physical Therapy program.

*For 600 and above course descriptions, consult the current Graduate Bulletin.*

**PTH 615 Principles of Pharmacology 1(1-0)**

**PTH 617 Clinical Pathophysiology 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)
Religion (REL)

The complete description of the religion program is found in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: REL 101, 320, 334.

REL 101 World Religions: An Introduction to the Study of Religion 3(3-0) F, Sp

Basic forms of religious activity and experience studied as an essential component of human life; includes a survey of major religious traditions. (Group I-A)

REL 130 Religion in America 3(3-0) F, Sp

An introduction to the varieties of religious experience in America; emphasis on the ways religious traditions have interacted with American culture and politics. (Group I-A)

REL 140 - Religion, Race and Discrimination in America 3(3-0) D

Introduction to the religious expressions of Americans who have experienced racial discrimination, with emphasis on Native American, African-American, and Hispanic-American communities. (Group IV-D)

REL 207 Women in Religion 3(3-0) D

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. (Group IV-A)

REL 211 Religion in the Ancient Near East 3(3-0) D

Early religious experience, traditions, and institutions as disclosed by archaeology and the oldest written records. Covers Mesopotamia, Egypt, Syria, and Palestine.

REL 212 Religion in the Classical World 3(3-0) D

Survey of religious beliefs and practices in Classical Greece and Rome, relationship of religion to society and the individual, and the decline of Classical religion.

REL 220 Religious Traditions of China 3(3-0) D

Study of the basic character of Chinese religion, including Chinese Buddhism. Examines both popular religion and major traditions (Confucian, Taoist). (Group IV-B)

REL 221 Religious Traditions of Japan 3(3-0) D

Introduction to the major characteristics of Japanese religion, including Shinto and Chinese Confucian and Buddhist elements; emphasis on religion in a Japanese cultural setting. (Group IV-B)

REL 222 Religious Traditions of India 3(3-0) D

The major features of the Hindu tradition, including the Buddhist and Jain traditions in India. Stresses the significance of practice and doctrine in Indian religion. (Group IV-B)

REL 235 Religion and Social Issues 3(3-0) F, Sp

Introduction to religious ethical thought in its personal, social and institutional contexts, considered in relation to current societal, medical, and sexual issues. (Group IV-A)

REL 240 African-American Religion 3(3-0) D

Origins, development, and contemporary character of African-American religion, including Christianity, Islam, and new religious movements. (Group IV-C)

REL 250 The Old Testament and Its Age 3(3-0) F

The literature, history, and religion of ancient Israel in its Near Eastern context as disclosed through study of the Hebrew Bible in English translation. (Group I-A)

REL 260 The New Testament and Its Age 3(3-0) Sp

Intensive study of selected portions of New Testament literature, with an introduction to the Hellenistic-Roman age through study of selected background documents. (Group I-A)

REL 297 Special Studies 1-6(Spec) D

Introductory-level study of selected topics using readings, discussions, lectures, and research as appropriate.

REL 301 Myth and Meaning 3(3-0) D

Study of myth and myth-making as expressions of human kind’s quest for order and meaning in life. Examines myth in general and in specific cultural settings.

REL 302 Witchcraft, Magic, and Occult Phenomena 3(3-0) D

A study of witchcraft in its European and African settings as well as a study of the intellectual history of witchcraft and occultism.

REL 303 Goddesses 3(3-0) D

Interdisciplinary study of nature and role of goddesses in selected cultures, ancient and modern. Examination of issues raised when contemporary groups employ reinvent goddess concepts. Identical to WST 303. Credit may not be earned in more than one of these courses.

REL 304 Religion and Psychology 3(3-0) D

Focus on interplay between psychology and religion. Emphasis on the anti-religious stance of Sigmund Freud and on the religious psychology of Carl Jung.

REL 305 Mysticism 3(3-0) D

Exploration of mystic experience, including consideration of its place in religious life, its modes of expression, and the major mystical figures in the world’s religions.

REL 313 Christianity 3(3-0) F, Sp

Development of the Christian religious tradition from Jesus of Nazareth to its major contemporary branches: Orthodoxy, Roman Catholicism, and Protestantism. (Group I-A)

REL 314 Islam 3(3-0) D

Phenomenological approach, stressing sources, institutions, dogmas, modes of expression within the context of Islamic civilization, and the role in the contemporary world, especially in the Middle East. (Group IV-B)

REL 315 Judaism 3(3-0) D

Judaism as a multifaceted approach to identity and lifestyle, both personal and societal; religious expressions such as Torah, myth, ritual, festivals, holy days. (Group I-Å)

REL 320 The Buddhist Tradition 3(3-0) D

The general nature of Buddhism, with attention to particular developments within (e.g., Theravada, Mahayana, Tibetan Buddhism). Examines Buddhism’s role in various Eastern cultures. (Group IV-B)

REL 330 Religious Issues In Modern America 3-6(Spec) D

Studies of religious issues in contemporary American life and thought: e.g., liberalism and fundamentalism; new religious movements. May be repeated once
for credit.

REL 334 Death and Dying: Religious Dimensions 3(3-0) F, Sp
Religious and cultural understandings of death; selected religious and moral problems related to death, e.g., suicide, abortion, euthanasia; religious rituals and death. Prerequisites: 12 hours of college credit or permission of instructor. (Group IV-A)

REL 345 The Civil Rights Movement 3(3-0) D
A seminar supporting research projects in religion, primarily intended for seniors who are religion majors. Prerequisite: for undergraduates, a signed Religion major with completion of REL 501, or permission of instructor. For graduate studies, permission of instructor.

REL 597 Special Topics 1-6(Spec)
Advanced study of selected topics using readings, discussions, lectures, and research as appropriate.

REL 642 African-American Sacred Song 3(3-0)
Study of nature and function of African-American sacred singing from spirituals to contemporary gospel. Singing will be examined in historical context with varied theoretical approaches. Prerequisites: a Bachelor's degree from an accredited college. No prior knowledge of music theory required.

Credit Limitation. REL 505, 597 are subject to graduate credit limitation under the policy covering unspecified content or variable credit.

**Recreation and Leisure Activities (RLA)**

RLA 170 Beginning Rock Climbing 1(1-0)
Basic concepts of rock climbing, focusing on belaying, knots, gear selection, and climbing movement. Not to be applied to RPL major or minor. CR/NC ONLY. Prerequisite: none.

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. Prerequisite: none.

RLA 200 Special Activity Topics in Recreation 1-3(Spec) D
Designed for students to gain an understanding of topic areas and display skills to actively participate in the topical area as a lifetime leisure pursuit. Repeatable up to 3 credits when content previously studied is not duplicated. Not to be applied to an RPL major or minor. CR/NC only. Prerequisite: none.

RLA 225 Recreational Crafts 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, and Leisure Services Administration (RPL)**

The complete description of the Department of Recreation, Parks, and Leisure Services Administration is found in the College of Education & Human Services.

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 119 Introduction to Leisure Services 1(1-0)
A survey of professional opportunities in leisure related professions. No credit for student with credit in RPL 118. CR/NC only.

RPL 200 Problems in Recreation 1-6(Spec)
Concentrated study of a current problem. Workshops concerned primarily with special recreation programs such as hunter safety, development of snowmobile programs, teaching of water safety.

RPL 204 Community Recreation 3(3-0)
Introduction and study of interrelationships of community organizations sharing a recreation responsibility.

RPL 205 Outdoor Leadership 3(3-0)
Introduction to outdoor leadership; study of leadership in outdoor and camp settings. Prerequisite: none.

RPL 206 Recreation Activities Leadership 3(3-0)
Activity leadership in recreation program areas: social recreation, outdoor education, sports, music, dance and drama. Methods, techniques and organization in recreation.

RPL 210 Recreation for Special Populations 3(3-0)
Introduction to therapeutic recreation and interventions for persons with special needs including: physically impaired, emotionally impaired, developmen-
RPL 118; one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.

RPL 216 Introduction to Outdoor Recreation 3(3-0)
Introduction to history, progression of outdoor recreation in the U.S.; development of understanding of roles played by federal, state, local governments, as providers of outdoor recreation.

RPL 218 Teaching of Outdoor Skills 3(3-0)
Techniques of teaching shooting sports, fishing, boating and canoeing, orienteering and others.

RPL 219 Teaching of Campcraft Skills 3(3-0)
Campcraft skills include fire-building, cookery, knots and lashing, shelters, trip camping, survival, winter, and outdoor etiquette.

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), F, Sp, Su
Exploration in depth of one or more aspects of the field of recreation or park administration by 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 118; and one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.

RPL 309 Microcomputers in Recreation and Park Administration 3(3-0)
Microcomputer applications for recreation, parks, and leisure. Prerequisites: basic knowledge of microcomputers recommended.

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.

RPL 314 Field Course in Commercial Recreation 1-5(Spec)
Well-supervised practical experience in some facet of commercial recreation. Minimum of 8 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, and RPL 317.

RPL 315 Field Course in Municipal Recreation 1-5(Spec)
Well-supervised practical experience in some facet of municipal recreation. Minimum of 8 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, and RPL 317.

RPL 316 Field Course in Therapeutic Recreation 1-5(Spec)
Well-supervised practical experience in some facet of therapeutic recreation. Minimum of 8 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, and RPL 317.

RPL 317 Field Course in Camping 1-5(Spec)
Practical experience as counselor in well-supervised camp program. Minimum of 8 hours may be earned from the four courses: RPL 314, RPL 315, RPL 316, and RPL 317.

RPL 318 Field Course in Recreation Specialization 1-5(Spec)
Well-supervised practical experience as a recreation or park specialist. May be repeated with different specializations up to a total of 5 hours of credit. A maximum of 10 hours may be earned from block: RPL 314, RPL 315, RPL 316, RPL 317, RPL 318, and RPL 319.

RPL 319 Field Course in Park Operations 1-5(Spec)
Practical experience in park and recreation facility maintenance and operations. A maximum of 10 hours may be earned from block: RPL 314, RPL 315, RPL 316, RPL 317, RPL 318, and RPL 319.

RPL 320 Internship Recreation 6-30(Spec)
In-depth experience in recreation, park administration, community school administration, outdoor education, etc. Permission from department chairperson required. May not be counted toward RPL major or minor. Prerequisites: RPL 310; students must be approved to begin preparation for this internship by the department chairperson at least five months before registration will be allowed. A number of individual activities, designated by the Center for Leisure Services, must be completed at designated intervals prior to registration. Students must attend a number of training workshops prior to class registration. Students should also check the section in the Bulletin on internships.

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 Impairments 3(3-0)
Concepts, interventions, and therapeutic recreation programming strategies for persons with physical disabilities.

RPL 342 Therapeutic Recreation: Emotional Impairments 3(3-0)
Concepts, interventions, and therapeutic recreation programming strategies for persons with emotional impairments.

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. Identical to HSA 343. Credit may not be earned in more than one of these courses. Prerequisites: 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)

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: Competition for Persons with Mental Retardation 3(3-0)
Competitive recreation programs for persons with mental retardation. Students will work with summer Special Olympics. CR/NC only.

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. Prerequisites: RPL 341 or signed major in an allied health field; ability to swim.

RPL 358 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 359 Advanced Expedition Planning 3(3-0)
Advanced concepts in wilderness expedition planning. The course focuses on equipment, techniques, and leadership of land and water based expeditions. Prerequisite: RPL 350 and permission of instructor.

RPL 400 Issues in Recreation 1-6(Spec)
Concentrated study of current recreation and park administration problems. Workshops concerned with such areas as public relations in recreation facility development, and National Park system.

RPL 405 Administration of Recreation and Parks 3(3-0)
The organization and administration of the recreation and parks program. Problems of surveys, finance, publicity, program planning, leadership, liability, and park facility planning and maintenance. Prerequisites: RPL 118; one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.

RPL 406 Seminar in Recreation and Park Administration 3(3-0)
In-depth study of the inner workings of various city administrative operations for recreation and parks. Prerequisites: RPL 118; one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.

RPL 420 Comprehensive Planning and Facility Design for Leisure 3(3-0)
Basic concepts related to community master planning for leisure services; planning and design of recreation areas and sites; planning, design and construction of recreation facilities. Prerequisite: None.

RPL 430 Recreation Programming 3(3-0)
Programming leisure services for various populations including the handicapped, elderly, young, social groups, and in a variety of settings. Prerequisites: RPL 118; one of the following: RPL 204, RPL 216 or RPL 261; or permission of instructor.

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 118, RPL 216; or permission of instructor.

RPL 436 Recreation Facility Operations 3(3-0)
Develop operational knowledge related to the operation and organization of recreation complexes. Prerequisite: RPL 307.

RPL 438 Meeting & Exposition Planning 3(3-0)
The development of skills and knowledge necessary for successful planning and administration 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, concentrating on large events. Learn event logistics and revenue development for special events. Prerequisites: RPL 430.

RPL 454 Seminar in Commercial Recreation 3(3-0)
New developments, concerns, trends, and opportunities in the commercial recreation field. Prerequisites: RPL 281 or permission of instructor.

RPL 460 Quality Service Systems in the Leisure Industry 3(3-0)
Develop an orientation and philosophy of quality service principles and practices as they relate to a variety of service industries. Fee required. Prerequisites: RPL 118; one of the following: RPL 204 or RPL 261; or permission of instructor.
Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: SDA 593.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

RPL 499 Independent Research in Leisure Services 1-3(Spec)
Research on a topic of interest to the student. Topic, outcomes, and hours must be approved prior to enrollment. Open to juniors and seniors. CR/NC only. Prerequisite: one of: RPL 307, RPL 341, RPL 358, RPL 405, RPL 470.

RPL 508 Budgeting for Leisure Service Agencies 3(3-0) F, Sp
Basic budgetary principles and procedures for leisure service agencies. Prerequisites: RPL 204 or RPL 210, or RPL 216 or RPL 261.

RPL 511 Liability and Risk Management in Leisure Services 3(3-0) F, Sp
Situational analysis of the legal systems impacting the delivery of recreation and leisure services. Emphasis on applied legal understanding and loss control strategies. Prerequisites: one of: RPL 210, RPL 307, RPL 405, RPL 430, RPL 470.

RPL 518 Instructional Supervision and Administration 3(3-0) F, Sp
This course integrates recreation into larger human and societal concerns and explores the cultural, social, psychological, and economic aspects of leisure. Take semester before internship. Prerequisites: RPL 118, RPL 204; or RPL 210, RPL 218 or RPL 261; or permission of instructor.

RPL 521 Financial Assistance for Recreation and Parks 3(3-0) Sp
Working with federal, state, and private funding sources for leisure services. Prerequisites: RPL 405 or RPL 508; senior or graduate status.

RPL 545 Promoting Leisure Service Agencies and Programs 3(3-0)
Provides a basis for applying marketing principles and techniques to the provision of leisure service products and programs. Prerequisites: completion of RPL 204 or RPL 210 or RPL 261 or permission of instructor.

RPL 552 Environmental Interpretation 3(3-0) Sp
Develop an understanding of and skills to produce and implement interpretive programs in parks, camps, museums, visitor and nature centers, and urban and rural areas. Prerequisites: RPL 358 or permission of instructor.

RPL 580 Programming for Therapeutic Recreation 3(3-0) F, Sp
Programming techniques for Therapeutic Recreation. Prerequisite: RPL 210.

RPL 581 Therapeutic Recreation Issues and Trends 3(3-0) F, Sp
Current issues and trends related to therapeutic recreation service delivery including: professional credentialing, reimbursement, quality assurance, accreditation standards, managed care, private practice, and others. Prerequisites: RPL 210; two of: RPL 340, RPL 341, RPL 342, RPL 344, RPL 345.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

RPL 600 Advanced Issues in Recreation 1-6(Spec) D
RPL 603 Advanced Independent Reading in Recreation 1 (Spec) F, Sp, Su
RPL 605 Administration of Leisure Service Systems 3(3-0)
RPL 610 Leisure Research 1(1-0) D
RPL 611 Evaluation in Recreation and Leisure Services 3(3-0) Sp
RPL 615 Practicum in Recreation Supervision and Administration 6(Spec) F, Sp, Su
RPL 618 Issues in Leisure 3(3-0) F
RPL 619 Continuing Registration for Final Research Project 1(1-0)
RPL 620 Planning for Parks and Recreation Facilities 3(3-0)
RPL 652 Outdoor Recreation 3(3-0) D
RPL 698 Graduate Internship 1-6(Spec) F, Sp, Su
RPL 699 Project 1-6(Spec) F, Sp, Su
RPL 754 Seminar in Recreation 2(2-0) Su
RPL 791 Independent Study 2(Spec) F, Sp, Su
RPL 798 Thesis 1-6(Spec) F, Sp, Su

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: RPL 303, 600, 603, 791.

Russian
(RUS)
The complete description of Russian is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved for the University Program appear in italic type.

Courses on the 100 or 200 level are supplemented by laboratory work

RUS 101 Elementary Russian I 4(4-0)
Designed for students who have had no Russian. Basic language skills. Introduction to the culture of the Russian-speaking countries. Students who have completed more than one year of Russian in secondary schools will not receive credit. (Group IV-B)

RUS 102 Elementary Russian II 4(4-0)
Basic language skills. Continuation of RUS 101. Prerequisite: RUS 101 or equivalent.

RUS 201 Intermediate Russian I 4(4-0)
More practice in hearing and speaking Russian, and exercises in reading and writing the language. Prerequisite: RUS 102 or equivalent.

RUS 202 Intermediate Russian II 4(4-0)
Continuation of RUS 201. Prerequisite: RUS 201 or equivalent.

Sciences
(Sci)
The complete description of Sciences is found in the College of Science & Technology.

SCI 109 Critical Thinking in Science and Technology 1-3(Spec) D
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) D
Primarily for freshmen or sophomores. Prerequisite: permission of instructor.

SCI 397 Special Studies in Science 1-12(Spec) D
Primarily for juniors and seniors. Prerequisite: permission of instructor.

SCI 597 Special Studies in Science 1-12(Spec) D
Primarily for graduate students. Prerequisite: permission of instructor.

Speech Communication and Dramatic Arts
(SDA)
The complete description of the Department of Speech Communication and Dramatic Arts is found in the College of Communication & Fine Arts.

SDA 101 Introduction to Speech Communication 3(3-0) F, Sp
General education approach to theory and process of human communication with practicum opportunities. Does not count toward a major or minor in Speech Communication and Dramatic Arts.

SDA 302 Voice and Diction 3(3-0) F, Sp, Su
Theory and practice of principles necessary for improving the speaking voice. Primary emphasis on individual speech improvement.

SDA 492 Speech Methods in Secondary School 4(4-0) Sp
Philosophy, principles, and methods. Curricular and co-curricular responsibilities of secondary teachers (grades 7-12). Students also will work as a teaching assistant in SDA 101. Prerequisites: Students must be accepted into the Teacher Education program. Must be taken the spring semester prior to student teaching at the secondary level in speech.

SDA 493 Field Experience in Speech Education 1(Spec) S
Individual one-week assignment in a public school 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: SDA 492.

SDA 591 Oral Communication with Children 3(3-0) D
Study and practice of adult/child communication patterns. Course will include State objectives for speaking/listening. Designed for teachers and people working with children.

SDA 600 Introduction to Research and Graduate Study in Speech Communication and Dramatic Arts 3(3-0) F

SDA 601 Research Design in Speech Communication 3(3-0) Sp
SDA 619 Continuing Registration for Final Research Project 1(1-0)
SDA 795 Seminar: Teaching College Speech 3(2-2) F

Credit Limitation. Mathematics courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: SDA 593.

Sociology
(SOC)
The complete description of Sociology is found in the Department of Sociology, Anthropology and Social Work in the College of Humanities and Social & Behavioral
Sciences.

Note: Prerequisites for any undergraduate course in sociology may be waived by permission of the department chairperson and the instructor.

Descriptions of courses approved for the University Program appear in italic type.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: SOC 323.

SOC 100 Introductory Sociology 3(3-0)
Systematic introduction to the field of sociology, its theories, concepts, and methods. Explores social relationships within the context of social structure. (Group III-B)

SOC 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)
Significance and impact of social interaction on the development of the self, emphasizing the interplay of social interaction and social structure. (Group III-A)

SOC 210 Sociology of Science and Technology 3(3-0)
In-depth analysis of the social systems of science and technology in the USA and abroad, including their history, organization, personnel, social effects, and probable futures. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 213 Introduction to Human Sexuality 3(3-0)
Processes of psychosocial development. Dimensions of sexual behavior and beliefs with reference to contemporary American society. Identical to HEV 213 and WST 213. Credit may not be earned in more than one of these courses.

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. (Group IV-A)

SOC 222 Juvenile Delinquency 3(3-0)
Nature, distribution, social construction, and theories of delinquency. Social reactions to delinquency including development of juvenile court and actions of juvenile justice agencies. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 223 Urban Structures and Change 3(3-0)
Culture and social 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, or permission of instructor. (Group IV-A)

SOC 300 Introduction to Research Methods 3(3-0)
Gathering, coding, and analyzing data, testing relationships among variables, controlling for variables, and conducting simple statistical tests. Prerequisite: math competency, SOC 100 or SOC 201 or SOC 221.

SOC 301 Sociological Theory 3(3-0)
Writings on political economy, Marxism, positivist organicism, social action theory, symbolic interactionism, exchange theory, functionalism, and other theoretical perspectives. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 302 Social Inequality 3(3-0)
Caste, class, and other forms of social strata. The bases, consequences, and correlates of position in the system of stratification. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 303 Population 3(3-0)
Quantitative and qualitative aspects of the population of societies, including their composition, distribution, and movement. Prerequisite: one of the following recommended: SOC 100, SOC 201, or SOC 221.

SOC 304 Collective Behavior 3(3-0)
Behavior in situations where institutionalized norms do not apply, such as panics, riots, and social movements. Prerequisite: SOC 300, 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. (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 312 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. 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: SOC 100 or SOC 201 or SOC 221.

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 417. Credit may not be earned in more than one of these courses. Prerequisites: one of the following recommended: SOC 100, SOC 201, or SOC 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. Prerequisite: one of the following recommended: SOC 100, SOC 201, or SOC 221. (Group IV-C)

SOC 324 Criminology 3(3-0)
Nature, distribution, social construction, and theories of crime. Introduction to criminal justice processes. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 326 Inequalities and Justice Processes: Race, Class and Gender 3(3-0)
Empirical and theoretical critique of class, race, and gender inequalities in justice processes that impede effective solutions to social problems. Prerequisite: 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: introductory history, political science or sociology course, or permission of instructor. (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, SOC 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.

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. Open to students not on academic probation, with permission of instructor. Prerequisite: SOC 100 or SOC 201 or SOC 221.

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)
Relationships among economic, psychological, and sociological variables in social change. Reciprocal relationships between social change and social values. Prerequisite: one of the following recommended: SOC 100, SOC 201, or SOC 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. Prerequisite: SOC 300, SOC 301; or signed political science major or minor.

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 social institution embedded in changing social and cultural contexts. Explores kinship systems, family diversity, social organization, intimacy, conflict, and change. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 412 Sociology of Adolescence 3(3-0)
Transition from childhood to adulthood. Emphasis upon the normal rather than the abnormal adolescent. Prerequisite: SOC 100 or SOC 201 or SOC 221.

SOC 413 Work and Careers in America 3(3-0)
Introduction to the sociology of work, occupations and professions. Prerequisite: SOC 300, SOC 301.

SOC 415 Sociology of Sport 3(3-0)
Development of sport as an innovative institution in modern urban-industrial systems; and consequences of that development. Prerequisite: one of the following recommended: SOC 100, SOC 201, or SOC 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 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 SWK 422. Credit may not be earned in more than one of these courses. Prerequisites: SOC 300, SOC 301; or signed Youth Studies minor.

**SOC 423 Society and Mental Illness 3(3-0)**
Forms of deviant behavior that often come to be defined and treated as mental illness. Prerequisite: SOC 300, SOC 301.

**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 SOC 201 or SOC 222 or ANT 170.

**SOC 501 Development of Sociological Theory 3(3-0) F**
Contributions to sociological theory by Smith, Comte, Spencer, Marx, Durkheim, Weber, Mead, and others. Relation of sociological thought to prevailing social and intellectual conditions. Prerequisite: SOC 100, SOC 201, SOC 221; or permission of instructor.

**SOC 502 Theories of Race Relations in Sociology 3(3-0) F (Odd year)**
Contributions to sociological theories of race relations by major theorists including Dubois, Frazier, Cox, and others. Prerequisites: SOC 300, SOC 301, SOC 323; or signed African American Ethnic Studies minor; or regular admission to the Sociology graduate program.

**SOC 504 Seminar in the Community 3(3-0)**
Theories of the nature, types, functions, and processes of the community. Methodology of community study. Prerequisites: SOC 100, SOC 200, SOC 201; or permission of instructor.

**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: 12 hours of sociology or permission of instructor.

**SOC 512 Industrial Sociology 3(3-0)**
Characteristics of industrial societies. Relationship to the organization of industrial work to that of nonwork culture, institutions, and roles. Prerequisites: SOC 300, SOC 301; or regular admission to the Sociology Graduate program.

**SOC 513 Society and Sex 3(3-0)**
Ways in which society defines the various aspects of sexuality and ways in which changes in society affect definitions. Identical to WST 213. Credit may not be earned in more than one of these courses. Prerequisite: SOC 213 or HEV 213 or WST 213.

**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 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, SOC 301, SOC 321; or regular admission to the Sociology Graduate program.

**SOC 522 Community Corrections and Alternative Sentencing 3(3-0)**
Philosophies and practice of community corrections and alternative sentencing, including probation, parole, restitutions, and victim-offender reconciliation. Prerequisites: SOC 300, SOC 301; 9 hours of social and criminal justice coursework; or regular admission to the Sociology Graduate program.

**SOC 524 Sociology of Law 3(3-0)**
The association of law with stratification, culture, social organization, and social control. Current issues of justice and law. Prerequisites: SOC 300, SOC 301; or regular admission to the Sociology Graduate program.

**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, SOC 301; or regular admission to the Sociology Graduate program.

**SOC 527 Alternative Dispute Resolution in Justice Systems 3(3-0)**
Citizen action through community-based alternatives to institutionalization of adults and juveniles in the justice systems. Prerequisites: SOC 300, 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 411, SOC 412, SOC 425. Concurrent enrollment in SOC 411, SOC 412, and/or SOC 425 is possible.

**SOC 535 Sexual Orientation 3(3-0)**
Examination of the development of sexual orientation, its roots, what it is, and how it has been defined scientifically and popularly. Identical to WST 535. Credit may not be earned in more than one of these courses. Prerequisites: SOC 100, SOC 213; or WST 213.

**SOC 590 Gender, Culture & Society 3(3-0)**
Theories of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to ANT 590 and WST 590. Credit may not be earned in more than one of these courses. Prerequisites: 6 hours of anthropology and/or sociology and/or women's studies, or permission of instructor.

**SOC 599 Special Topics in Sociology 1-10(Spec)**
Consideration of subject-matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

**SOC 601 Contemporary Sociological Theory 3(3-0) Sp (Odd year)**

**SOC 602 Professional Seminar 3(3-0) F (Odd year)**

**SOC 604 Seminar in Sociology of Education 3(3-0)**

**SOC 605 Sociology of Knowledge 3(3-0)**

**SOC 607 Methodology of Social Research 3(3-0) F**

**SOC 611 Human Diversity Within and Between Families 3(3-0)**

**SOC 619 Continuing Registration for Final Research Project 1-10**

**SOC 621 Social Control and Justice Systems 3(3-0)**

**SOC 623 Violence, Victims, and Social/Justice Responses 3(3-0)**

**SOC 624 Social Justice 3(3-0)**

**SOC 625 Field Consultation 3(3-0)**

**SOC 631 Workshop on Qualitative Research 3(3-0) Sp (Even year)**

**SOC 632 Techniques of Sociological Research 3(3-0) Sp (Odd year)**

**SOC 690 Social Aspects of Health Care and Illness 3(3-0)**

**SOC 699 Special Topics in Sociology 1-10(Spec)**

**SOC 795 Independent Reading 1-6(Spec)**

**SOC 796 Independent Research 1-6(Spec)**

**SOC 797 Advanced Independent Readings 1-6(Spec)**

**SOC 798 Thesis 1-6(Spec)**

Credit Limitation. Courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are the following: SOC 599, 619, 699, 795, 796, 797, 798.

**Special Education (SPE)**

The complete description of Special Education is found in the Department of Counseling and Special Education in the College of Education & Human Services.

**Distance Learning Courses:** Courses in the department approved for offering in a distance learning format include: SPE 531.

**SPE 125 Introduction to Special Education 3(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(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 125 with grade of C or better.
SPE 323 Classroom Management for Students with Special Needs 3(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(2-6)
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 419 Teaching the Student with Mild Cognitive Impairment 3(3-0)
Causes and 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.

SPE 455 Special Education Student Teaching Seminar 3(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. Gr/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. Overall GPA of 2.5 or better. Must co-register for one of the following courses: SPE 456 or SPE 458.

SPE 456 Special Education Student Teaching: Emotional Impairment 6(3-0)
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 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 578, SPE 579, and SPE 581 with grades of C+ or better.

SPE 458 Special Educ. 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 419, SPE 521, and SPE 522 with grades of C+ or better.

SPE 466 Independent Study 1-3(Spec)
Individualized research or project dealing with a problem in special education. Prerequisite: permission of department chairperson.

SPE 470 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.

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. Prerequisites: admission to Teacher Education or senior status.

SPE 504 Teaching Students in Inclusive Settings 3(3-0)
Theory and practice of the instruction of students who have disabilities in general education settings. Prerequisites: senior or graduate status.

SPE 510 Microcomputers in Classroom Instruction 3(2-3)
Students will study and practice the integration of microcomputer technology in classroom instruction and management, with emphasis upon software evaluation and lesson development. Identical to EDU 590. Credit may not be earned in more than one of these courses. Prerequisites: EDU 310, EDU 320, EDU 330 or equivalent with instructor permission.

SPE 521 Teaching the Student with Moderate to Severe Cognitive Impairment 3(3-0)
Causes and characteristics of students with moderate to severe cognitive impairment. Curriculum development and instructional methods including 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.

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 419 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. Prerequisites: 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 with 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 550 Teaching Culturally Diverse Students 3(3-0)
Survey of sociocultural influences on the performance of students from culturally different backgrounds, and educational provisions made for them in public schools. Included are Hispanic, Black and Asian American, Native American; rural and urban disadvantaged; and recent immigrants.

SPE 577 Introduction to Specific Learning Disability 3(3-0)
Systematic introduction to the identification, diagnosis and remediation of specific learning disabilities. Prerequisite: approved major in psychology or special education, or graduate status.

SPE 578 Students with Emotional Impairment 3(3-0)
Diagnostic procedures, therapy, and research concerning children and youth with emotional impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 579 Teaching Students with Emotional Impairment 3(3-0)
Special techniques and materials used in instruction of students who have emotional and behavioral disorders. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 581 Field Experience-Emotional Impairment 3-6(Spec)
University-supervised practice and application of knowledge and strategies for teaching students with emotional impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324, SPE 578, and SPE 579 with grades of C+ or better; admission to Teacher Education; PSY 310.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

SPE 600 Current Issues in Special Education 3(3-0)
SPE 619 Continuing Registration for Final Research Project 1(1-0)
SPE 640 Administration of Special Education 3(3-0)
SPE 645 Special Education Workshop 1-6(Spec)
SPE 665 Independent Study 1-3(Spec)
SPE 666 Independent Study 1-3(Spec)
SPE 675 Teaching the Student with Learning Disabilities 3(3-0)
SPE 678 Education of Students with Severe Emotional Impairment 3(3-0)
SPE 679 Behavioral and Curricular Interventions for Individuals with Mild Disabilities 3(3-0)
SPE 685 Innovative Cognitive Techniques in Special Education 3(3-0)
SPE 689 Practicum in Learning Disabilities 3-6(Spec)
Spanish (SPN)

The complete description of Spanish is found in the Department of Foreign Languages, Literatures and Cultures in the College of Humanities and Social & Behavioral Sciences.

Descriptions of courses approved for the University Program appear in italic type.

Courses on the 100 and 200 level are supplemented by laboratory work.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: SPN 101.

SPN 101 Elementary Spanish I 4(4-0) F, Sp

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)

SPN 102 Elementary Spanish II 4(4-0) F, Sp

Basic language skills. Continuation of SPN 101. Prerequisite: SPN 101 or equivalent. (Group IV-B)

SPN 110 Study Abroad 1-8(Spec)

Intended for beginning students studying abroad. Prerequisite: permission of instructor.

SPN 201 Intermediate Spanish I 4(4-0) F, Sp

Further development of all language and reading skills, a review of grammar, and exploration of Hispanic culture. Prerequisite: SPN 102 or equivalent. (Group IV-B)

SPN 202 Intermediate Spanish II 4(4-0) F, Sp

Designed to develop fluency in reading Spanish; cultural emphasis. Prerequisite: SPN 201 or equivalent. (Group IV-B)

SPN 210 Study Abroad 1-12(Spec)

To develop proficiency in Spanish. Special topics may include language and/or culture. Intended for overseas study. Prerequisite: SPN 201 or equivalent, or permission of instructor. (Group IV-B)

SPN 214 Intermediate Conversation and Composition 3(3-0)

Designed to develop fluency and accuracy in written and oral expression. Prerequisites: SPN 201 or equivalent. (Not open to students with credit in SPN 211 or SPN 212 and not to be taken concurrently with SPN 331 or SPN 341.)

SPN 310 Study Abroad 1-12(Spec)

Intended for advanced students studying abroad. Prerequisites: 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. Prerequisite: SPN 214.

SPN 331 Advanced Grammar and Composition 3(3-0) F, Sp

Designed to develop greater accuracy and fluency in written expression. Prerequisites: SPN 202 or equivalent, SPN 214 or equivalent.

SPN 335 Spanish for Business 3(3-0)

Designed for students who have an interest in acquiring useful and practical vocabulary in Spanish related to business and to develop fluency in writing and reading letters, contracts and other business documents in Spanish. Prerequisite: SPN 202 or equivalent.

SPN 341 Advanced Spanish Conversation 3(3-0) F, Sp

Intended for those with some skill in speaking Spanish who wish to achieve greater fluency. Prerequisites: SPN 202 or equivalent and SPN 214 or equivalent.

SPN 370 Advanced Studies in Spanish 1-4(Spec)

Special topics may include language, literature and/or culture. Prerequisite: SPN 331.

SPN 376 Culture and Civilization of Spain 3(3-0)

Spanish culture and civilization focusing on political, social, geographic, intellectual and artistic development and their influence on the character and tradition of the Spanish people. Prerequisite: SPN 331.

SPN 377 Culture and Civilization of Latin America 3(3-0)

Historical and cultural development of Latin America from the pre-Columbian era through the present. Prerequisite: SPN 331.

SPN 386 Survey of Spanish Literature (Beginning to 1700) 3(3-0)

Literature of Spain from the Middle Ages to 1700. Prerequisite: SPN 331.

SPN 387 Survey of Spanish Literature (1700 to Present) 3(3-0)

Literature of Spain from the eighteenth century to the present. Prerequisite: SPN 331.

SPN 388 Survey of Spanish-American Literature (Beginnings to Modernism) 3(3-0)

General acquaintance with the literature of Spanish America from its beginnings to the modernist movement. Selections from representative authors. Prerequisite: SPN 331.

SPN 389 Survey of Spanish-American Literature (Modernism to Present) 3(3-0)

General acquaintance with the literature of Spanish America from modernism to the present. Selections from representative authors. Prerequisite: SPN 331.

SPN 404 Drama of the Siglo de Oro 3(3-0)

A study of major and lesser playwrights. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 389 or SPN 393; or permission of instructor.

SPN 405 Modern Spanish Novel 3(3-0)

Development of the novel in Spain from the nineteenth century to 1940. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 388 or SPN 389; or permission of instructor.

SPN 406 The Generation of 1898 3(3-0)

A study of the literary works of this group as masterpieces of literature and as a reflection of national and spiritual values. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 389 or permission of instructor.

SPN 410 Study Abroad 1-12(Spec)

Intended for advanced students studying abroad. Prerequisites: 6 hours at the 300 level or equivalent; permission of instructor.

SPN 411 Practicum in Teaching Spanish 3(2-1)

Techniques for teaching and testing foreign language skills, planning lessons and units, and selecting texts, cultural materials and teaching aids. Practical experience through mini-teaching situations. Prerequisites: two 300-level courses; passing the competency exam; departmental permission.

SPN 412 Practicum: Field Experience 1-2(Spec)

Laboratory experience in elementary and/or secondary teaching situations. CR/NC only. Prerequisite: to be taken concurrently with SPN 411.

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. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 389; or permission of instructor.

SPN 416 Spanish-American Drama and Essay 3(3-0)

Representative masterpieces of the two genres as they reflect the political and social conditions of the Spanish American countries. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 389 or permission of instructor.

SPN 417 Spanish-American Poetry and Short Story 3(3-0)

Representative masterpieces of the two genres as they reflect the political and social conditions of the Spanish American countries. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 389; or permission of instructor.

SPN 421 Foreign Language in Elementary Schools 1(1-0) Sp

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 SPN 411.

SPN 470 Advanced Studies in Spanish 1-4(Spec)

Special topics may include language, literature and/or culture. Prerequisites: SPN 376 or SPN 377 and SPN 386 or SPN 387 or SPN 389 or permission of instructor.

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. Prerequisite: three (3) credits in Spanish at the 400 level or permission of instructor.

SPN 591 Special Topics in Spanish 1-9(Spec)

Prerequisite: three (3) credits in Spanish at the 400 level or permission of instructor.

SPN 597 Independent Study 1-6(Spec) F, Sp

The in-depth study of a topic under the direction of a faculty member who together with a student designs the format of the study. Prerequisites: permission of instructor and department chairperson; three (3) credits in Spanish at the 400 level.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

SPN 610 Studies in U.S. Latino Cultures 3-6(3-0)

SPN 619 Continuing Registration for Final Research Project 1(1-0)
SPN 620 Cultures and Literatures of Spanish America 3-6(3-0)
SPN 630 Culture and Literature of Spain 3-6(3-0)
SPN 640 History of the Spanish Language 3(0-3)
SPN 650 Stylistics 3(3-0)
SPN 660 Spanish Phonology 3(3-0)
SPN 670 Study Abroad: Latin America 3-6(Spec)
SPN 680 Study Abroad: Spain 3-6(Spec)
SPN 697 Independent Study 1-3(Spec)

Credit Limitation. Courses in Spanish that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: SPN 591, 597, 697.

Social Sciences (SSC)

The complete description of Social Sciences is found in the College of Humanities and Social & Behavioral Sciences.

SSC 197 Special Studies in Social Science 1-12(Spec)
Primarily for freshmen or sophomores. Prerequisite: permission of instructor.

SSC 397 Special Studies in Social Science 1-12(Spec)
Primarily for juniors and seniors. Prerequisite: permission of instructor.

SSC 597 Special Studies in Social Science 1-12(Spec)
Primarily for graduate students. Prerequisite: permission of instructor.

Statistics (STA)

The complete description of Statistics is found in the Department of Mathematics in the College of Science & Technology.

Distance Learning Courses: Courses in the department approved for offering in a distance learning format include: STA 282.

STA 282 Introduction to Statistics 3(3-0) F, Sp
Descriptive statistics, probability, sampling distributions, statistical inference, regression. Course does not count on major, minor in mathematics. Credit may not be earned in both STA 282 and STA 382. Prerequisite: successful completion of MTH 105 or passing another math class 100-level or higher; or 50% or better on the Basic Mathematics Placement Test; or a score of 11 or above on the Elementary Algebra portion of the ACT; or a score of 10 or above on the Intermediate Algebra portion of the ACT.

STA 382 Elementary Statistical Analysis 3(3-0) F, Sp
An introduction to statistical analysis. Topics will include descriptive statistics, probability, sampling distributions, statistical inference, and regression. Greater emphasis than in STA 282 will be placed on probability theory and probability distribution. Credit may not be earned in both STA 282 and STA 382. Prerequisite: MTH 130.

STA 575 Introduction to Statistical Packages 3(3-0) F
Introduction to statistical packages for data management and data analysis. SPSS, SAS and S-PLUS are introduced. Prerequisites: STA 282, STA 382 or permission of instructor.

STA 580 Applied Statistical Methods I 3(3-0) F
Applications of statistical methods including the usage of computer packages. Topics include forecasting, simple and multiple regression, and analysis of variance. Prerequisite: STA 282, STA 282.

STA 582 Experimental Designs 3(3-0) D
Randomized block designs, Latin square designs, factorial designs, fractional factorial designs, response surface methods. Prerequisite: STA 580 or equivalent.

STA 583 Nonparametric Statistics 3(3-0) D
Theoretical foundation of nonparametric methods. Topics include one-, two- and several-sample problems, rank correlation and regression, Kolmogorov-Smirnov tests, and contingency tables. Prerequisite: STA 382.

STA 584 Mathematical Statistics I 3(3-0) F
Probability defined on finite and infinite samples spaces, conditional probability and independence, random variables, expectations, moment-generating functions, probability models, limit theorems. Prerequisite: MTH 233.

STA 585 Mathematical Statistics II 3(3-0) Sp
Randomized block designs, Latin square designs, factorial designs, fractional factorial designs, response surface methods. Prerequisite: STA 584.

STA 586 Clinical Trials and Survival Analysis I 3(3-0) D
Simple and advanced statistical techniques used in the analysis and interpretation of clinical research data. Emphasis on statistical techniques commonly used in chronic disease analysis. Prerequisites: STA 382 or equivalent.

STA 587 Statistical Theory and Methods for Quality Improvement 3(3-0) D
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) D
Principles of sampling; simple random sampling; stratified random sampling; systematic sampling; cluster sampling; sample size determination; ratio and regression estimates; comparisons among the designs. Prerequisites: STA 382 or equivalent.

STA 589 Time Series Forecasting 3(3-0) D
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, or permission of instructor.

STA 590 Applied Statistical Methods II 3(3-0) Sp
Multivariate ANOVA, multiple comparison procedures, analysis of covariance, repeated measures analysis, unbalanced data and missing data analysis. Prerequisites: STA 580 and MTH 223.

STA 591 Statistical Methods for Data Mining 3(3-0) D
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)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of department chairperson and instructor.

For 600 and 700 level course descriptions consult the current Graduate Bulletin.

STA 680 Statistical Data Analysis and Consulting 3(3-0)
STA 682 Linear Models 3(3-0)
STA 684 Theory of Statistical Inference 3(3-0)
STA 686 Multivariate Analysis 3(3-0)
STA 782 Generalized Linear Models 3(3-0)
STA 784 Theory of Estimation 3(3-0)

Credit Limitation. Mathematics courses in the department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: STA 596, 597.

Strathclyde (STR)

Designates graduate history classes taken at the University of Strathclyde, Scotland. For complete description of graduate history programs see the current College of Graduate Studies Bulletin.

The American Economy, 1865-1917
The British Economy I: 1870-1914
British Politics since 1914
Customs and Culture in Britain since 1750
Early Modern Scotland
Edwardian Britain
Europe during the Reformation
Europe during the Renaissance
Florence in the Age of the Renaissance, I
Florence in the Age of the Renaissance, II
Franco-German Relations during the Early Twentieth Century: The Ruhr Crisis, 1923-1924, I
Franco-German Relations during the Early Twentieth Century: The Ruhr Crisis, 1923-1924, II
From Chartism to Labour: Working Class Politics, 1850-1918, I
From Chartism to Labour: Working Class Politics, 1850-1918, II
General Essay Seminar
Germany between the Wars
Historiography
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) F, Sp
- 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/NCR only. Prerequisites: permission of instructor.

SWK 301 Social Work and Law 3(3-0)
- Reciprocal relations between social work and law, court decisions, and regulations. Prerequisite: SWK 100.

SWK 302 Social Work Practice in Gerontology 3(3-0)
- Social work theories and practices beneficial to clinical interventions in gerontological social work. Prerequisites: SWK 100; SOC 100; PSY 100 or GRN 247.

SWK 315 Social Work Generalist Practice I: Social Work Communications 3(3-0)
- Generalist communication skills through interviewing and information exchange with micro, mezzo and macro client systems. Develop ability to assess information obtained. Prerequisites: SWK 100; completion of 24 credit hours; SWK 250 as prerequisite or co-requisite.

SWK 321 Social Work Generalist Practice II 3(3-0)
- Knowledge, skills and values for social work generalist practice with micro, mezzo and macro client systems. Emphasis on culturally-competent and evidence-based practice. Prerequisites: SWK 250, SWK 315, SWK 374; LIB 197; signed social work major.

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 or permission of instructor; SWK 250 as prerequisite or co-requisite; SWK 315 as prerequisite or corequisite; signed social work major intent.

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; SOC 301; or signed Youth Studies minor.

SWK 450 Social Welfare Policies and Services II 3(3-0)
- Analysis and evaluation of social policies and social welfare services. Emphasis on social action, social and economic justice and impact on at-risk groups. Prerequisites: SWK 250; SOC 221 or SOC 302; SWK 470 as prerequisite or co-requisite.

SWK 470 Social Work Practicum I 4(Spec)
- Supervised social work field experience in a social agency. Includes 200 hours in field and 5 seminars. Must be taken within 2 years of completion of course prerequisites. Prerequisites: signed social work major; SWK 315, SWK 375. SWK 331 as a corequisite.

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. Prerequisites: SWK 470 with a grade of B- or better.

SWK 510 Social Work Generalist Practice and Human Sexuality 3(3-0)
- Social work generalist practice with issues of human sexuality. Special emphasis on sexual identity issues, common sexual dysfunctions and policy implications. Prerequisites: one of the following: SOC 213, HEV 213, WST 213, HSC 222, or permission of instructor.

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.

Credit Limitation. Courses in the Department that are subject to graduate credit limitation under the policy covering unspecified content or variable credit are: SWK 597, 599.

Theatre and Interpretation (TAI)

The complete description of Theatre and Interpretation is found in the Department of Speech Communication and Dramatic Arts in the College of Communication & Fine Arts.

Descriptions of courses approved for the University Program appear in italic type.

TAI 170 Fundamentals of Interpretative Reading 3(3-0) F, Sp, Su
- General education approach to the art as a dynamic means of analyzing and experiencing literature while communicating it to others. (Group I-B)

TAI 175 Appreciation of the Theatre 3(3-0) F, Sp
- Survey of theatrical principles and practices including units on performance, terminology and organization, architecture, literature, technical theatre, and musical theatre. (Group I-B)

TAI 177 Stagecraft and Stage Lighting 4(4-0) F, Sp
- Basic principles of scenery construction. Theory and principles of basic stage
lighting.
TAI 182 Acting I 3(3-0) F, Sp
Introductory voice and body work with special emphasis through exercises given to energy control and concentration.

TAI 278 Stage Makeup 3(2-2) F, Sp
Theory and practice in straight and character makeup.

TAI 282 Acting II 3(3-0) F, Sp
Introduction to emotional technique and characterization through exercises and scenes in individual projects. Prerequisite: TAI 182.

TAI 300 Improvisation 3(2-2) F (Even Years)
Creation of spontaneous performances, emphasizing scenes, monologues, and storytelling. Prerequisite: TAI 182.

TAI 305 Studio: Acting/Performance 1-4(Spec) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) F, Sp, Su
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) Sp (Even Year)
Scripting and directing alternative texts for performance, including narrative fiction, lyric poetry, personal narratives, and non-fictional prose. Prerequisite: TAI 170

TAI 373 Oral Interpretation for Children 3(3-0) F, Sp, Su
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) F (Odd Year)
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) F (Even Year)
Survey of costume history, Egyptian to the present; introduction to design and construction techniques.

TAI 378 Stage Combat 3(2-2) Sp (Odd Year)
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) D
The creative process and special technical aspects of acting for the camera. Prerequisites: TAI 182.

TAI 380 Musical Theatre 3(3-0) F
Major types of musical theatre productions since 1943; organizational structure, practices, and characteristics of professional and nonprofessional theatre.

TAI 382 Acting III 3(3-0) F (Odd Year)
Period movement patterns, pantomime techniques, and regional and cultural dialects, with individual scenes prepared for critical evaluation. Prerequisite: TAI 182.

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; SDA 302.

TAI 384 Movement for the Actor 3(3-0) F (Odd year)
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) D

TAI 460 BFA Studio 1-6(Spec) D
An intensive course for all BFA candidates. Must be taken each Fall and Winter semester after admission to BFA. Course will deal with concerns pertaining to preparation of professional training.

TAI 475 Lighting Design 3(3-0) Sp (Odd Year)
Theory and application of basic principles used in designing lighting for the theatre. Prerequisites: TAI 177, TAI 314.

TAI 477 Scene Design 3(3-0) Sp (Even Year)
Theory and application of basic principles used in designing scenery for the theatre. Prerequisite: TAI 177.

TAI 478 Theatre Management 3(3-0) D
Concepts and methods of theatre management and promotion: box-office procedures, house management, and publicity.

TAI 481 Directing 3(3-0) F, Sp (On Demand)
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) F, Sp, Su
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) D
Development of drama and theater in America from colonial times to the present. Prerequisites: 6 hours of TAI coursework or permission of instructor.

TAI 570 Oral Interpretation of Prose Fiction 3(3-0) D
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) D
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) D
Current topics for each semester listed in the Phase I or II Class Schedule
### Technology (TEC)

The complete description of Technology is found in the Department of Engineering & Technology in the College of Science & Technology.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Semester(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEC 297</td>
<td>Special Topics 1-6(Spec)</td>
<td>Variable credit, variable content courses with credit and specific topics identified in the Class Schedule book. Prerequisites: permission of instructor.</td>
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<tr>
<td>TEC 320</td>
<td>Vehicle Systems and Design Terminology 3(3-0)</td>
<td>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.</td>
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<tr>
<td>TEC 321</td>
<td>Technical Creativity 3(3-0)</td>
<td>A study of individual and group creative processes related to the design of new products and the application of new technologies. Prerequisites: TEC 320 or permission of instructor.</td>
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<tr>
<td>TEC 323</td>
<td>Materials and Applications in Vehicle Design 3(3-0)</td>
<td>The study of various vehicle design applications and mechanical properties of steel, aluminum, composites, and plastics used in vehicle manufacturing. Prerequisites: IET 154 or equivalent, IET 359 or equivalent; TEC 320.</td>
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<tr>
<td>TEC 325</td>
<td>Design for Manufacturing and Assembly 3(3-0)</td>
<td>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 or permission of instructor.</td>
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<tr>
<td>TEC 350</td>
<td>Vehicle Packaging 3(3-0)</td>
<td>Vehicle designs for occupant packaging, seating arrangements, vision requirements, luggage storage, ground to bumper requirements, component dimensions, and legal/government design criteria, standards, and regulations. Prerequisites: TEC 320 or permission of instructor.</td>
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<tr>
<td>TEC 376</td>
<td>Metal Forming 3(3-0)</td>
<td>Design techniques and applications related to cutting, forming, and maintaining design tolerances; related industrial history, and the functions of die engineering departments will be covered. Prerequisites: TEC 323 or permission of instructor.</td>
<td></td>
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<tr>
<td>TEC 397</td>
<td>Special Topics 1-6(Spec)</td>
<td>Variable credit, variable content courses with credit and specific topics identified in the Class Schedule book. Prerequisites: permission of instructor.</td>
<td></td>
</tr>
<tr>
<td>TEC 420</td>
<td>Value Methodology in Vehicle Design 3(3-0)</td>
<td>Methods for improving product value and enhancing customer satisfaction in industrial projects utilizing a team approach. Prerequisites: TEC 320, TEC 321, TEC 323; or instructor's approval.</td>
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<tr>
<td>TEC 441</td>
<td>Vehicle Interior Cockpit Design 3(3-0)</td>
<td>Vehicle cockpit design emphasizing occupant placement and location relationships with interior components together with the design integrations process. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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</tr>
<tr>
<td>TEC 442</td>
<td>Vehicle Interior Trim Design 3(3-0)</td>
<td>A study of design processes and techniques associated with designing vehicle interior components including door trim, headliners, floor coverings, seats, and other interior systems. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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<tr>
<td>TEC 444</td>
<td>Vehicle Electrical Design 3(3-0)</td>
<td>Electrical harness design and electrical component packaging covering electrical system and subsystem requirements, functions, and component assembly. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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<tr>
<td>TEC 451</td>
<td>HVAC Design 3(3-0)</td>
<td>Design of components, ducts, materials, and controls for vehicle HVAC and engine/transmission cooling systems are studied. Ergonomics, air flow, and system packages are emphasized. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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<tr>
<td>TEC 452</td>
<td>Vehicle Body Structure Design 3(3-0)</td>
<td>Basic automobile body design from a structural perspective relative to strength, vehicle performance, passenger comfort, and safety. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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<tr>
<td>TEC 454</td>
<td>Vehicle Instrument Panel Design 3(3-0)</td>
<td>Instrument panel design emphasizing occupant placement and location relationships with instrument panel components, together with the design integration process. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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<tr>
<td>TEC 456</td>
<td>Vehicle Lighting Systems Design 3(3-0)</td>
<td>Design and engineering principles applied to exterior, interior, and signaling lighting systems. Prerequisites: TEC 320, TEC 321, TEC 323; or permission of instructor.</td>
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</tr>
</tbody>
</table>
| TEC 457 | Vehicle Bumper System Design 3(3-0) | Design and packaging of automotive bumper systems, including energy management, federal and international regulations, molding of parts, and assembly of bumper systems. Prerequisites: TEC 320, TEC 321, TEC 323; or
permission of instructor.

TEC 459 Vehicle Design Analysis and Integration 3(3-0)
Capstone course for the Vehicle Design major which requires a vehicle design project showing the interface with affected departments, time constraints, and manufacturing/assembly implications. Prerequisites: minimum of 21 hours of 300-400 level TEC courses.

TEC 497 Special Topics 1-6(Spec)
Variable credit, variable content courses with credit and specific topics identified in the Class Schedule book. Prerequisite: permission of instructor.

For 600 and 700 level course descriptions, consult the current Graduate Bulletin.

TEC 600 Introduction to Technology 3(3-0) D

TEC 700 Readings in Technology 3(3-0) D

Women's Studies (WST)
The complete description of the Women's Studies Major and Minor is found in the Interdepartmental Majors and Minors. Additional information about the Women's Studies program is available from the Women's Studies office.

WST 202 Women's Health 3(3-0) F, Sp
Study of women's health, including reproductive health issues and female health problems. Emphasis on knowledge for active participation in health care, healthy lifestyles, and preventive measures. Identical to HSC 202. Credit may not be earned in more than one of these courses.

WST 207 Women in Religion 3(3-0) D
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. (Group IV-A)

WST 213 Introduction to Human Sexuality 3(3-0) F, Sp
Human sexual development throughout the human life cycle. Emphasis on understanding and acceptance of self as a sexually functioning person. Identical to SOC 213 and HEV 213. Credit may not be earned in more than one of these courses.

WST 221 Growing Up in America 3(3-0) F, Sp
Child rearing, education, social experiences, search for identity, and finding a career from colonial times to the present. Emphasis on late nineteenth and twentieth centuries. Identical to HST 221. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 230 Women in the Economy 3(3-0)
A study of the past and present role of women in the economy, as workers, both inside and outside the labor market. Identical to ECO 230. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 297 Special Topics in Women's Studies 3-6(Spec)
Course covers special topics of interest to Women's Studies not covered in existing courses. Course title will be listed on student's transcript.

WST 303 Goddesses 3(3-0)
Interdisciplinary study of nature and role of goddesses in selected cultures, ancient and modern. Examination of issues raised when contemporary groups employ/reinvent goddess concepts. Identical to REL 303. Credit may not be earned in more than one of these courses.

WST 317 Sociology of Sex and Gender 3(3-0)
Analysis of the role of gender in institutions such as the economy, the family and the schools; gender inequality and factors that promote its reproduction. Identical to SOC 317. Credit may not be earned in more than one of these courses.

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. (Group III-A)

WST 326 Women and Politics 3(3-0) Sp
This course will look primarily at empirical studies of women's role in politics in the U.S. but also in other contexts. Identical to PSC 326. Credit may not be earned in more than one of these courses. (Group IV-A)

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) F, Sp
Study of the traditional position of women in American society as documented in historical, literary, and biographical sources. Identical to HST 326. Credit may not be earned in more than one of these courses. (Group IV-A)

WST 334 Psychology of Women 3(3-0) F, Sp
Explores psychological issues pertaining specifically to women in the following areas: affective and cognitive functioning, personality theories, adult role behaviors, sexuality and mental health. Identical to PSY 334. Credit may not be earned in more than one of these courses. (Group III-A)

WST 354 Women in European History 3(3-0)
Surveys and analyzes the traditional and nontraditional roles of women in European history, using new historical research. Identical to HST 354. Credit may not be earned in more than one of these courses.

WST 362 Female 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 texts. Identical to IPC 362. Credit may not be earned in more than one of these courses.

WST 380 Racial Diversity: Mass Media's Role 3(3-0)
Critical, historical examination of African-American, Hispanic, Native American, and gender stereotypes in mass media. Self-portrayal by these groups using media. Identical to JRN 380. Credit may not be earned in more than one of these courses. (Group IV-C)

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 379.

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 9 additional hours in Women's Studies.

WST 497 Special Topics in Women's Studies 3-6(Spec)
Course covers special topics of interest to Women's Studies not covered in existing courses. Course title will be listed on student's transcript.

WST 513 Society and Sex 3(3-0) F, Sp
Ways in which society defines the various aspects of sexuality and ways in which changes in society affect definitions. Identical to SOC 513. Credit may not be earned in more than one of these course. Prerequisite: SOC 213 or HEV 213.

WST 535 Sexual Orientation 3(3-0)
Examination of the development of sexual orientation, its roots, what it is, and how it has been defined scientifically and popularly. Identical to SOC 535. Prerequisites: SOC 100, SOC 213; or WST 213.

WST 590 Gender, Culture, and Society 3(3-0)
Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to ANT 590 and SOC 590. Credit may not be earned in more than one of these courses. Prerequisites: 6 hours of anthropology and/or sociology and/or Women's studies, or permission of instructor.
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<td>MARTHA L. SMITH</td>
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<td>JAMES J. SMOLKO</td>
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<td>TIMOTHY M. SNELENBERGER</td>
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<td>DAVID SPITLER</td>
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<td>REBECA TORRES-RIVERA</td>
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<td>HAROLD WILLIAM TREMAIN</td>
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<td>THOMAS M. TRESH</td>
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<td>JAMES A. TRYON</td>
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<td>JERRY R. TUBBS</td>
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<td>THERESA T. TURNER</td>
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<td>JANET WAGESTER</td>
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<td>JERRIE WAGGONER</td>
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<td>WILBUR J. WAGGONER</td>
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<td>J. B. WALDEN</td>
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1. **Preamble**

The students, faculty, and staff of Central Michigan University constitute an academic community which is committed to the preservation, communication, and discovery of knowledge, and to the active pursuit of truth. Consistent with this purpose, the University recognizes its obligation to afford each student the opportunity to develop his or her educational potential while retaining free exercise of rights and freedoms as a citizen. Such opportunity should be limited only by the necessity of insuring equality of opportunity to all students, and by the corollary requirement of orderly operation of the educational processes. Each member of the Central Michigan University community assumes an obligation regarding self conduct to act in a manner consistent with a respect for the rights of others and with the University’s function as an educational institution. As guides for individual and group actions within this community, the University affirms the following general principles of conduct. These principles serve as the basis for regulations concerning student conduct.

1.1 The community requires a system of order supportive of the educational process which is the purpose of the University. Primary responsibility for preserving the system of order rests upon the individuals making up the community. Each individual must accept responsibility for his or her own actions and values and for recognizing that such actions and values affect the whole community. Implicit in the community’s recognition of the rights of the individual is an obligation on the part of the individual to accept responsibilities toward the community.

1.2 Even though there is a diversity of opinion regarding many ethical and moral standards, each person should endeavor to maintain self conduct in a manner consistent with respect for others and thoughtful consideration for the needs of society. In social relationships generally, including relations involving the civil, property, and personal rights of others, each individual has an obligation to act in a manner consistent with these fundamental values. Each individual has both the freedom and obligation to make ethical choices and to accept the attendant responsibilities.

2. **Student Rights**

Free inquiry and free expression are essential attributes of a community of scholars. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus generally, and in the community at large. The responsibility to secure and respect general conditions conducive to the freedom to learn is shared by all members of the University community. Students should strive to develop the capacity for critical judgment and the ability to engage in a sustained and independent search for truth, while endeavoring to exercise their freedom with maturity and responsibility. As students undertake to fulfill the obligations and duties outlined in this document, the University community of which they are a part undertakes to respect the basic freedoms of students.

### 2.1 Rights of Students

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

**2.1.1 Students have the right to free inquiry, expression and association.**

**2.1.2 Students have the right to editorial freedom in student publications and other student media, e.g. CM Life, Framework, WMHW, MHTV.**

**2.1.3 Students have the right to representation on the appropriate, designated bodies.**

**2.1.4 Students accused of misconduct or of violating University policy have the right to have a determination of their violation or non-violation in accordance with University procedures.**

**2.1.5 Students have the right to protection against improper disclosure of their student records.**

**2.1.6 Students have the right of access to their personal educational records.**

**2.1.7 Students have the right to 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 reasonable 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 curricular processes, which includes a description of the scope of the course and a list of the goals and objectives of the learning experience. Faculty members assigned to teach a course will develop a course outline, based on the master syllabus, to provide students with greater specificity about how the course will be conducted in order to accomplish the intended goals and objectives. Proper evaluation of progress of graduate students in thesis or dissertation work or other research projects is based on attainment of objectives established by the chair of the student's committee according to written departmental guidelines.

### 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.
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 discretionary review of a decision of the Appeals Board to suspend a student for more than one week or to dismiss a student. The Dean of Students is the designated officer responsible to the President for the administration of student conduct policies, with the exception of research misconduct or violation of academic integrity by a graduate student, which are delegated to the Dean of the College of Graduate Studies/Assistant Vice President for Research. All misconduct of students, except that governed by the Dean of the College of Graduate Studies/Assistant Vice President for Research, 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.

3.2 Specific Regulations Concerning Student Conduct
3.2.1 Written or other work which a student submits in a course shall be the product of his/her own efforts. Plagiarism, cheating, and all other forms of academic dishonesty are prohibited. Students are expected to adhere to the ethical and professional standards associated with their programs and academic courses. Copies of the Policy on Academic Integrity may be accessed at http://academicsenate.cmich.edu/NonCad/Academic_Integrity_POLICY.pdf.

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. Further, 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 displaying defiance or disrespect to others.

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 acts to destroy or prevent or limit access to information or records used by other students in connection with their University responsibilities.

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, inflicting sexual contact upon another person or sexually penetrating any person without that person's consent. Conduct will be considered without consent if no clear consent is given, or when the inflicted person is unconscious or otherwise without the physical or mental capacity to consent. Inflicting sexual contact on someone under the influence of alcohol or drugs may be considered "without consent."

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 disorders, (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.

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. Controlled substances are defined in the Controlled Substances Act of 1971, 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. Violations of the Residence Life Alcohol & Controlled Substances Policy are considered 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 and may be injurious to others, except as part of an approved university activity and under the supervision of a university official. Firearms used for hunting must be properly registered with the CMU Police Department and stored in compliance with University regulations. Firearms may not be stored in university residences.

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 Misuse of Buildings/Facilities/Services. A student must observe rules and regulations concerning the use of campus buildings and other University owned or operated facilities, vehicles, equipment and services.

3.2.18 Computer Abuse. A student shall not abuse university computer time or equipment. Abuse includes but is not limited to: unauthorized access to, unauthorized 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 (http://www.oit.cmich.edu/).

3.2.19 Hazing/Harassment/Stalking. A student shall not haze, harass or stalk any person or group of persons. Telephonic 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, firefighter 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 a part of a riot or civil disorder.

3.2.24 Discrimination. Information concerning 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 participates in connection with it, or aids orabet 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/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. 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 sanctions in addition to University or community service.

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 sanctions in addition to University or community service.

4.1.3 Restitution. Reimbursement for defacement, damage to, or misappropriation of property. The person or body imposing this sanction may impose another allowed sanction as an alternative if restitution is not made within a time specified by such person or body and may impose sanctions additional to restitution.

4.1.4 Fines. A fine not to exceed $300 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. Failure to complete required participation as directed may result in suspension from the University.

4.1.8 Revocation of the Privilege of being a Registered Student Organization.

4.1.9 Disciplinary Probation. Subject 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 holding office in a campus organization,
c) withdrawing the privilege of representing the University in any inter-University event,
d) requirement to complete a specified number of credit hours with a specified grade point average during the current or subsequent academic session,
e) requirement to complete coursework related to the violation,
f) 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 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 may be established by the University for certain violations of the student conduct regulations.

4.3 Temporary Sanction/Suspension. The University reserves the right to impose any sanction set forth in Section 4.1, summarily and without notice, if in the judgement 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.

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 in violation of Section 3.2.14.

4.4.9 Participation in a riot or civil disorder as described in Section 3.2.20.

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 3.2.6 (Threat/Endangerment/Assault/Sexual Assault) or 3.2.7 (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

5.1.1 A charge may be made to the Judicial Proceedings Officer by any person stating that a student has violated the Specific Regulations Concerning Student Conduct (3.2).

5.1.2 One or more Judicial Proceedings Officers shall be appointed by the President or the President's designated representative. The Judicial Proceedings Officer will make, or cause to be made, an investigation of the charge.

5.1.3 If, from the investigation, the Judicial Proceedings Officer determines the matter may be reason for discipline under the student conduct regulations, the Judicial Proceedings Officer will notify the student that a charge has been made and will offer the student an opportunity to discuss the matter. If notified by mail, the notice will be mailed to the last address for the student on file with the University Office of the Registrar. The notice will be deemed received two (2) days following the date the notice is posted at facilities of the United States Post Office. In the absence of mailing, personal delivery to the student cited, or delivery to the last home address or address 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. 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 Judicial Proceedings Officer will set up a hearing, and cause to be delivered to the student a copy of this document.

5.1.4 The student may bring an advisor of the student's choice to the discussion with the Judicial Proceedings Officer. If the student's advisor is an attorney, the student must notify the Judicial 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 Judicial 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 Judicial 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 Judicial Proceedings Officer within five (5) business days after the Judicial Proceedings Officer has set the sanction. Since admission of the violation by the student is a prerequisite to the Judicial Proceedings Officer acting under this section, such an appeal will only be as to the appropriateness of the sanction and not the fact of whether the violation occurred. Once a student admits a violation for which there is an automatic sanction, the sanction is automatically imposed and only the terms of a suspension may be appealed. The appeal is to the Appeals Board.

5.1.8 Student Does Not Admit Violation. After discussion with the student, the Judicial Proceedings Officer may determine that the matter requires no further action. The Judicial Proceedings Officer will refer the matter for hearing if:

5.1.8.1 The student denies the charge and the Judicial Proceedings Officer determines the matter may be reason for discipline.

5.1.8.2 The student chooses not to discuss the matter at the discussion offered by the Judicial Proceedings Officer. The student will be notified of the date and time of the hearing.

5.1.9 Alternative Resolution

5.1.9.1 Mutual Settlement. In lieu of referral to a hearing, the Judicial 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 Proceedings Officer. Cases not settled in a timely manner shall proceed to a hearing. Mutual settlements may not be appealed.

5.1.9.2 Counseling. In lieu of, or in addition to, a sanction or referral to a hearing the Judicial Proceedings Officer may refer the student for psychological counseling.

5.1.9.3 Behavioral Contract. In lieu of, or in addition to, a sanction or referral to a hearing, the Judicial Proceedings Officer may arrange a behavioral contract with the student. A behavioral contract is a mutually acceptable agreement between the University and a student that specifies certain behavior with which the student must comply, and specifies automatic sanctions which may be imposed if the contract is broken. If the contract is broken, as determined by a finding of fact under procedures set forth in Article 5 herein, the student may be suspended from the University. In cases where suspension is automatic under the terms of a behavioral contract, a hearing to determine if the contract has been broken will be on fact only.

5.1.9.4 Referral to BET. In lieu of referral to a hearing, the Judicial Proceedings Officer and the student may agree to referral to a process provided by the Behavior Evaluation Team. This option is available in situations where the alleged conduct of the student appears to be related to a mental disorder or emotional problem.

5.2 Hearings

5.2.1 University Hearing Officer

5.2.1.1 One or more University Hearing Officers will be appointed by the President or the President's designee.

5.2.1.2 The University Hearing Officers will be assigned by the President or the President's designee to hear the case.
d) A statement as to what portion(s) of the Appeals Board decision the applicant
c) A copy of the Appeals Board decision involved.
b) Name, address, and telephone number of the person making application for
limit ends the right to make application for review unless the time limit is extended
procedures, or the Administration, may make a written application to the Provost
a charge under these procedures, any person bringing charges under these
suspend for more than one week or to dismiss a student is subject to discretionary
from the date the appeal is made in writing and delivered to the Judicial Proceedings
findings of fact made at the original hearing and may set aside the finding or
or persons making the appeal.  The Appeals Board may:
appropriate to the circumstances designed to achieve fairness to the
student as well as the interests protected by the Central Michigan University
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
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 Board were so incorrect that the decision should be
changed.  It is not the purpose of the Appeals Board to substitute its judgement
for that of the Hearing Officer or Body.  It is not the purpose of the Appeals Board
to decide if it would have reached the same decision had it been the Hearing Officer
or Body.  It is not the function of the Appeals Board to reweigh the charges against
the student; it is an appeal of the findings and/or the sanction of the Judicial
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 ten (10) business days
from the date the appeal is made in writing and delivered to the Judicial Proceedings
Officer.
5.4.13 A decision of the Appeals Board is final except that a decision to
suspend, for more than one week, 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 a decision made by the Appeals Board. The application must be received
in the office of the Provost within five (5) business days after the date of the
Appeals Board decision. Failure to make application for review within the time
limit ends the right to make application for review unless the time limit is extended
by the Provost. The application for review must contain the following information:
a) Name of the student(s) charged in the proceeding in which the Appeals Board
has rendered a decision.
b) Name, address, and telephone number of the person making application for
review.
c) A copy of the Appeals Board decision involved.
d) A statement as to what portion(s) of the Appeals Board decision the applicant
wishes reviewed, and the reason(s) why the person making application for
review considers the decision to be capricious, or the procedures followed
to be fundamentally unfair.
e) A statement of the relief requested from the Provost by the person making
application for review.
If the Provost elects to review a decision of the Appeals Board, either in part
or entirely, the Provost may establish whatever procedures are deemed
appropriate and consistent with fairness to govern the 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 Judicial 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
5.6.1 The procedures set forth herein shall apply throughout the calendar
year. A University Hearing Officer may be appointed by the Judicial Proceedings
Officer to hear a case at times when a University Hearing Body cannot be readily
assembled such as when students are not in attendance at regular sessions,
during exam week, summer sessions.
5.6.2 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.
5.7 Clarifying Processes. Clarifying processes which are consistent with
the Hearing Procedures in this document may be proposed by any student,
organization, or staff member, and forwarded to the Provost for consideration.
6. Student Hearing Procedures for Graduate Students Charged with
Violating the Policy on Academic Integrity (If the charge is against a graduate
student for violation of the Policy on Academic Integrity, then the matter will be
handled under this section and not under section 5.)
6.1 Intake Judicial Proceedings Officer
6.1.1 A charge may be brought to the Dean of the College of Graduate Studies
by any person stating that a student has violated Section 3.2.1 of Specific
Regulations Concerning Student Conduct.
6.1.2 One or more Judicial Proceedings Officers shall be appointed by the
Dean of the College of Graduate Studies. The Judicial Proceedings Officer
will make, or cause to be made, an investigation of the charge.
6.1.3 If, from the investigation, the Judicial Proceedings Officer determines
the matter may be reason for discipline under the policy on academic integrity,
the Judicial Proceedings Officer will notify the student that a charge has been
made and will offer the student an opportunity to discuss the matter. If notified
by the Judicial Proceedings Officer, 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
delivered 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 student's 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 if noticed
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 Judicial Proceedings Officer will set up a hearing, and cause to
be delivered to the student a copy of this document.
6.1.4 The student may bring an advisor of the student's choice to the
discussion with the Judicial Proceedings Officer. If the student's advisor is an
attorney, the student must notify the Judicial 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 before the
Judicial Proceedings Office will at the discussion inform the student of the charge(s) and the
questions or make oral arguments. Any case presented must be made by the
student charged or the person or group who first brought the
charge may appeal the sanction, by a letter delivered to the Dean of the
College of Graduate Studies within five (5) business days after the Dean has set the
sanction. Since admission of the violation by the student is a prerequisite to the
Dean acting under this section, such an appeal will only be as to the
appropriateness of the sanction and not the fact of whether the violation occurred.
6.1.7 Student Does Not Admit Violation
After discussion with the student, the Judicial Proceedings Officer may determine that the matter requires no further action. The Judicial Proceedings Officer will refer the matter for hearing if:

6.1.7.1 The student denies the charge and the Judicial 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 Judicial 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 Judicial 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 Proceedings Officer. Cases not settled in a timely manner shall proceed to a hearing.

6.2 Hearings
There are two hearing forums: The Graduate Studies Hearing Officer and the Graduate Studies Hearing Body. In cases where there is potential for a sanction of suspension or dismissal, the student may choose which hearing forum will hear the case. The student will have two (2) business days from the date of the meeting with the Judicial Proceedings Officer to make a final choice in writing to the Judicial Proceedings Officer. If no such timely choice is made, the Judicial Proceedings Officer will designate whether the case will be heard by a Graduate Studies Hearing Officer or Graduate Studies Hearing Body. The student will be notified of the time and date of the hearing.

6.2.1 Graduate Studies Hearing Officer
6.2.1.1 One or more Graduate Studies Hearing Officers will be appointed by the Dean of the College of Graduate Studies to hear the case.
6.2.1.2 The Graduate Studies Hearing Officer, based on the evidence presented at the hearing, determines whether the student charged violated the policy on academic integrity and sets the sanction, when applicable.

6.2.2 Graduate Studies Hearing Body
6.2.2.1 The Graduate Studies Hearing Body consists of one Graduate Studies Hearing Officer, one graduate faculty member and one graduate student.
6.2.2.2 The graduate faculty member and the graduate student will be selected by the Dean of the College of Graduate Studies.
6.2.2.3 The Graduate Studies Hearing Body, based upon the evidence presented at the hearing, determines whether the student charged violated student conduct regulations, and sets the sanction, when applicable.

6.2.3 Hearing Procedures
6.2.3.1 In all disciplinary hearings, the burden of proof rests with the Judicial 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 Judicial 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 Judicial Proceedings Officer, at least until the appeal time is exhausted. If neither 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 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.
6.2.3.7 A copy of a decision by the Graduate Studies Hearing Body or Graduate Studies Hearing Officer will be mailed to the student within two (2) business days from the date the decision is made. The Judicial Proceedings Officer will coordinate procedures for communicating the decision.

6.3 Instructor's Rights
Central Michigan University recognizes that instructors have rights which need to be protected as well as those of the person who is cited.
6.3.1 The instructor has the right to have a person of his or her choice accompany him or her throughout the disciplinary hearing.

6.3.2 The instructor has the right to remain present during the entire proceeding.
6.3.3 The instructor has the right to make an "impact statement" and to suggest an appropriate sanction if the person cited is found in violation.
6.3.4 The instructor has the right to be informed in a timely manner of the outcome of the hearing regarding the findings and the sanction.
6.3.5 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 Judicial 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 person 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 Judicial 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 Judicial 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 Judicial 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 Judicial 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 Judicial Proceedings Officer.
6.4.8 The Judicial Proceedings Officer will assemble the documentary evidence introduced at the hearing, the record made of the hearing, and the file made in connection with the matter and will make these materials available to the Graduate Studies Appeals Board.
6.4.9 The Graduate Studies Appeals Board may establish its own procedure for conducting any appeal appropriate to the circumstances designed to achieve fairness to the student charged as well as the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.
6.4.10 The Graduate Studies Appeals Board makes its determination based solely on the record of the student's hearing, facts that are presented to the Graduate Studies Appeals Board, and arguments before the Graduate Studies Appeals Board.
6.4.11 The purpose of the Graduate Studies Appeals Board is to decide if the findings and/or the sanction of the Graduate Studies Hearing Body were so incorrect that the decision should be changed. It is not the purpose of the Graduate Studies Appeals Board to substitute its judgement for that of the Graduate Studies Hearing Officer or Graduate Studies Hearing Body. It is not the function of the Graduate Studies Appeals Board to re-hear the charges against the student; it is an appeal of the findings and/or the sanction of the Judicial Proceedings Officer, Graduate Studies Hearing Officer or Graduate Studies Hearing Body. The Graduate Studies Appeals Board may:
6.4.11.1 Find that there are not sufficient facts presented to warrant the findings of fact made at the original hearing and may set aside the finding or determine the facts differently.
6.4.11.2 Order that a new hearing be held.
6.4.11.3 Change the sanction.

6.4.11.4 Provide such further and additional relief or changes as dictated by fairness to the student and to the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.

6.4.12 The Graduate Studies Appeals Board must hear the appeal within ten (10) business days from the date the appeal is made in writing and delivered to the Judicial 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 Judicial 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 any student, organization, or staff member, and forwarded to the President for consideration.

Office of the Dean of Students

December 4, 2003
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 computers of another institution or agency in which students are performing part of their academic program.

Clarification
1. Students may not use the university computer system in support of any act of plagiarism.
2. Students may not monitor or tamper with another person’s electronic communications.
3. Students may not use university computer resources to engage in illegal activity, including but not limited to the following: illegally accessing other computer systems, exchanging stolen information, and violating copyright agreements which involve software or any other protected material.

H. Misuse of Intellectual Property

Definition
Misuse of intellectual property is the illegal use of copyright materials, trademarks, trade secrets or intellectual properties.

Clarification
Students may not violate the university policy concerning the fair use of copies. This can be found under Policies at the following web address: www.orsp.cmich.edu.

3. Ethical and Professional Behavior

Students are expected to adhere to the ethical and professional standards associated with their programs and academic courses. Such standards are generally communicated to students by instructors and are available through publications produced by professional organizations. Unethical or unprofessional behavior will be treated in the same manner as academic dishonesty.

4. Sanctions for Violations of the Policy on Academic Integrity

In cases involving violation of the Policy on Academic Integrity, determination of the student’s grade and status in the course are made by the instructor. The instructor’s determination can be appealed by the student to the dean of the college in which the offense has occurred.

5. Process for Handling Alleged Violation of this Policy

A. Informal Proceedings
1. Conference with the Student
A conference between the student and the instructor is the first, and may be the only, step in addressing alleged violations of the Policy on Academic Integrity.

If an instructor has reason to believe that a student has committed a violation of the Policy on Academic Integrity, the instructor will contact the student within a reasonable period of time to notify the student of the suspected violation of the Policy on Academic Integrity and to either discuss the matter with the student or set up an informal meeting between the student and instructor. The student has the right to decline to talk about the matter with the instructor until they have a meeting. Any meeting shall take place as soon as possible after the discovery of the alleged violation. Neither the instructor nor the student may be represented or accompanied by an attorney or any other advisor.

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 given 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.

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 Postal 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, maintain a file of its records, and may initiate formal proceedings for disciplinary action against the student under the “Code of Student Rights, Responsibilities and Disciplinary Procedures."

The Office of Student Life or the College of Graduate Studies will maintain a confidential file on students for one (1) year after they graduate or have not been enrolled at the university for a period of three (3) years. If students are suspended, the records are maintained for one (1) year after graduation or five (5) years after last enrollment. If students are dismissed or 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 as its standard of review a preponderance of evidence, and it will be the instructor who has the burden of proof.

The purpose of the appeals committee is to decide if the findings of the instructor were so incorrect that the decision should be changed. It is not the purpose of the appeals committee to substitute their judgment for that of the instructor. It is not the purpose of the appeals committee to decide if it would have reached the same decision had it been the instructor. It is not the function of the appeals committee to 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 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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