The purpose of this bulletin is to provide information about CMU's academic programs available in the 2008-09 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/
# University Calendar

*(Tentative)*

## Summer Sessions

<table>
<thead>
<tr>
<th>Phase II Registration-Drop/Add</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tr>
<td></td>
<td>May 11-19</td>
<td>May 10-18</td>
<td>May 9-17</td>
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### First Session (Six Weeks)

| Classes Begin                  | May 18     | May 17     | May 16     |
|                                | May 25     | May 31     | May 30     |
| Classes End                    | June 25    | June 24    | June 23    |

### Second Session (Six Weeks)

| Classes Begin                  | June 29    | June 28    | June 27    |
| Independence Day Recess        | July 3     | July 5     | July 4     |
| Classes End                    | Aug. 6     | Aug. 5     | Aug. 4     |

## Fall Semester

<table>
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<th>2011</th>
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<td>Classes Begin</td>
<td>Aug. 17-28</td>
<td>Aug. 16-27</td>
<td>Aug. 15-26</td>
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<tr>
<td>Labor Day Recess</td>
<td>Aug. 24</td>
<td>Aug. 23</td>
<td>Aug. 22</td>
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<tr>
<td>Thanksgiving Recess</td>
<td>Sept. 7</td>
<td>Sept. 6</td>
<td>Sept. 5</td>
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<tr>
<td>5:00 p.m. Wed - 7:30 a.m. Mon.</td>
<td>Nov. 25-30</td>
<td>Nov. 24-29</td>
<td>Nov. 23-28</td>
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<tr>
<td>Classes End</td>
<td>Dec. 5</td>
<td>Dec. 4</td>
<td>Dec. 3</td>
</tr>
<tr>
<td>Examination Week</td>
<td>Dec. 7-11</td>
<td>Dec. 6-10</td>
<td>Dec. 5-9</td>
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<tr>
<td>Semester Ends</td>
<td>Dec. 12</td>
<td>Dec. 11</td>
<td>Dec. 10</td>
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<tr>
<td>Commencement</td>
<td>Dec. 12</td>
<td>Dec. 11</td>
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<th>2012</th>
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<td>Classes Begin</td>
<td>Jan. 11</td>
<td>Jan. 10</td>
<td>Jan. 9</td>
</tr>
<tr>
<td>Martin Luther King Jr. Day (no classes)</td>
<td>Jan. 18</td>
<td>Jan. 17</td>
<td>Jan. 16</td>
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<tr>
<td>Spring Recess</td>
<td>March 6-15</td>
<td>March 5-14</td>
<td>March 3-12</td>
</tr>
<tr>
<td>1:00 p.m. Sat -7:30 a.m. Mon.</td>
<td>April 29-30</td>
<td>April 28-29</td>
<td>April 26-27</td>
</tr>
<tr>
<td>No Classes</td>
<td>April 1-15</td>
<td>April 1-14</td>
<td>April 1-13</td>
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<tr>
<td>Classes End</td>
<td>May 1</td>
<td>April 30</td>
<td>April 28</td>
</tr>
<tr>
<td>Examination Week</td>
<td>May 2-6</td>
<td>April 30-May 4</td>
<td></td>
</tr>
<tr>
<td>Semester Ends</td>
<td>May 7</td>
<td>May 5</td>
<td></td>
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<tr>
<td>Commencement</td>
<td>May 5</td>
<td>May 7</td>
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See [http://www.registrars.cmich.edu/calendars/default.htm](http://www.registrars.cmich.edu/calendars/default.htm) for updates to the calendar.
General Information

Board of Trustees

Ms. Stephanie Comai, Ann Arbor 2010
Mr. Brian W. Fannon, Novi 2014
Ms. Jacqueline N. Garrett, Detroit 2014
Dr. Marilyn French Hubbard, Bloomfield Township 2012
Mr. John D. Hurd, Munith 2016
Dr. Sam R. Kottamasu, Saginaw 2012
Ms. Sarah R. Opperman, Midland 2016
Ms. Gail F. Torreano, Northville 2010

Administration 2009

Kathleen M. Wilbur (2002)* Interim President; B.A., Michigan State University
David A. Burdette (2008) Vice President for Finance and Administrative Services; B.B.A., University of South Florida; M.B.A., Suny at Buffalo
Raymond L. Christie (1998) Vice Provost/Academic Administration; B.A., Saginaw Valley State University; M.B.A., Central Michigan University; Ph.D., Georgia State University
Roger L. Coles (1973) Interim Dean, College of Graduate Studies; B.A., Western Washington State College; M.A., Central Michigan University; Ed.D., Central Michigan University; Ed.D., Columbia Pacific University
Ian R. Davison (2008) Dean, College of Science and Technology; B.Sc., University of London; Ph.D., University of Dundee
Cam Enarson (2009) Interim Dean, College of Medicine; B.A., Concordia College; B.M.S. and M.D., University of Alberta; M.B.A., University of Pennsylvania
D. Michael Fields (2006) Dean, College of Business Administration; B.S.B.A., University of Arkansas; M.B.A., University of Arkansas; Ph.D., University of Arkansas
Salma Ghanem (2009) Dean, College of Communication and Fine Arts; B.A., The University of Texas - Pan American, M.A. and Ph.D., The University of Texas at Austin
Denise O'Neil Green (2007) Associate Vice President for Institutional Diversity, B.A., University of Chicago; M.A. and Ph.D., The University of Texas at Austin
Merodie A. Hancock (2007) Vice President and Executive Director, ProfEd (Off-Campus Programs); B.A., Scripps College; M.B.A., Claremont Graduate University; Ph.D., Old Dominion University
Chris D. Ingersoll (2009) Dean, The Herbert H. and Grace A. Dow College of Health Professions; B.S., Marietta College; MA, Indiana State University; Ph.D., University of Toledo
Kathryn E. Koch (1986) Interim Dean, College of Education and Human Services; B.S., Kent State University; M.A., Kent State University; Ph.D., Ohio State University
Thomas J. Moore (1988) Dean of Libraries; A.B., Belmont Abbey College; M.A. State University of New York, Binghamton; M.S.L.S., Syracuse University
Roger E. Rehm (1975) Vice President/Technology/CIO; B.M., M.M., Cleveland Institute of Music
Bruce K. Roscoe (1980) Dean of Students; B.S.H.E., Ph.D., University of North Carolina at Greensboro
E. Gary Shapiro (1978) Interim Executive Vice President and Provost; A.B., Wayne State University; A.M., Ph.D., University of Michigan
Edward A. Tolcher (1999) Interim Vice President, Development and Alumni Relations; BME, Central Michigan University

*The year in parentheses indicates the date first employed by the university.
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From the Dean…

Each year, we are pleased to welcome both new and returning students to Central Michigan University to pursue your graduate studies. We are particularly pleased that you chose CMU for your studies. Your studies here ensure that as knowledge creators and innovators of tomorrow, you will have the cultural awareness, skills, and expertise to compete effectively in a knowledge-based global economy. You are now embarking on a new journey.

Our system of higher education is arguably the best in the world, and graduate education is its bedrock, attracting top domestic and international students to our nation’s graduate programs is imperative. During the Presidential campaign, our President made the connection between a robust educational system and American economic strength and security, and he stressed the need to increase access and affordability of high quality education at all levels. Education must play a key role in our national strategy to enhance our competitiveness in the global economy.

Graduate education is meant to be different from undergraduate education. Graduate education is essential to maintaining our country’s leadership in research and innovation. At the graduate level, the field of study is narrow, the expectations for both teacher and learner are great, and, in many cases, there is an opportunity to do research and work independently. These aspects of graduate education make it a challenge for many, and hopefully, an experience that enriches the learner in many ways.

Make the most of your graduate experience by utilizing the many resources available to you. There are many opportunities, on- and off-campus, to get involved in meaningful activities outside the classroom. Funding is available to assist you with research and creative projects and for travel. The Graduate College will be offering an enrichment series to help meet some of your needs that are not directly connected to your academic pursuits. Oftentimes, departments and programs have special activities to broaden your experience in your area of study. Do not limit yourselves to the classroom or the lab.

We are here to assist you and the graduate dean continually advocates for excellence regarding every aspect of the graduate enterprise. If you need to speak with us regarding aspects of graduate education such as your graduate assistantship, plan of study, or thesis or dissertation, please do not hesitate to make an appointment. Also, you can find a great deal of information and any form related to CMU graduate education you might need on our website: www.grad.cmich.edu. And finally, let us know if CMU is not meeting your needs as a graduate student. We are always willing to consider new offerings to our graduate students; we just need to know what you need! The highly skilled creative workforce of tomorrow is developed through your graduate programs.

Again, we are most pleased that you have chosen CMU for your graduate studies. We believe you will find your graduate work here at CMU exciting and valuable.

Roger Coles, Interim Dean
College of Graduate Studies
The College of Graduate Studies

The College of Graduate Studies is the primary administrative unit for graduate students enrolled at CMU. On a daily basis, the College of Graduate Studies handles all types of issues affecting graduate students, from admission through the awarding of graduate certificates and degrees. The dean of the college has a variety of duties including: continually advocating for excellence regarding every aspect of the graduate enterprise, reviewing existing programs, encouraging the development of new programs, promoting and supporting graduate student research and creative endeavors, increasing support for graduate programs and graduate students, building and maintaining the institutional infrastructure for graduate education, and enforcing university policies regarding graduate education.

The Graduate Student Handbook is available on the College of Graduate Studies website for all CMU graduate students. This handbook describes graduate policies and procedures and provides detailed information about financial support opportunities at CMU.

The staff of the College of Graduate Studies is available to answer questions or help current and prospective graduate students with any problems they may have. In addition, if you have general questions concerning graduate studies at CMU, the Office of the Dean or the Graduate Student Services staff are happy to be of assistance.

Contact information:
College of Graduate Studies
Central Michigan University
Mount Pleasant, Michigan 48859
www.grad.cmich.edu
grad@cmich.edu

Office of the Dean
Foust 250
989-774-4890

Graduate Student Services
Foust 100
989-774-GRAD

Campus Visits

The College of Graduate Studies welcomes visits from prospective students and their families to Mount Pleasant and the CMU community. The College of Graduate Studies can provide campus maps and information. Students are encouraged to call departments before their visit and set up an appointments to meet with department chairs or graduate coordinators.

If you arrive by car, stop first at CMU Parking Services located in the CMU Police office in the Combined Services Building on East Campus Drive (between Broomfield and Preston streets), for assistance with visitor parking.
An Introduction to Central Michigan University

The University Setting
CMU’s home is Mount Pleasant, home to 26,000 people and growing. Our students come from every county in Michigan and many other states and countries. Our park-like campus is a relaxing place to study, meet up with friends over a cup of coffee, or enjoy the serene beauty of nature.

Campus life includes events like plays, concerts, Division I sporting events, lectures, art exhibits, and more.

To view upcoming events, visit http://events.cmich.edu.

Just outside campus, nature buffs enjoy the 80-mile-long Chipewa River, which runs through town, and the city’s seven parks are loved by people of all ages. Mission and nearby streets feature many popular big box stores and chain restaurants; downtown Mount Pleasant offers boutiques and intimate restaurants.

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

CMU Today
Central Michigan University is Michigan’s fourth largest university, with 20,000 students on its Mount Pleasant campus and another 7,000 enrolled on line and at more than 60 locations nationwide — including 18 centers and sites across the state of Michigan.

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

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

- Nationally recognized for its Leadership Institute and new academic minor in leadership, the first one to be offered by a Michigan university
- Award-winning Honors Program, which administers the prestigious Centurial Scholarship Program and oversees approximately 200 faculty-mentored honors undergraduate research projects annually
- Model Volunteer Center maintaining a volunteer database of more than 4,000 students who take advantage of numerous opportunities to help others
- Four professors named Carnegie Foundation for the Advancement of Teaching Michigan Professor of the Year — more than any other Michigan school
- Ranked among the top 20 most productive research universities of its size (Academic Analytics report)

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

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

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

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

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

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

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

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

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

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

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

Quality
- Striving for quality in all that we do, encouraging excellence in all of our activities.

(continued)
Goals

To achieve its mission and realize its values, Central Michigan University is committed to the following actions:

1. Provide a quality, broad undergraduate education to prepare students for a thoughtful life of service to the community and as a base for future academic and professional work and to ensure that CMU students will be knowledgeable and skilled, liberally educated persons.
2. Offer in-depth undergraduate programs in which students can begin to master an academic field and practice a profession.
3. Offer graduate programs in niche areas of faculty strength that meet regional, state, national and international needs.
4. Encourage the practice of values pertaining to professionalism, character and citizenship, including concern for the welfare of humanity, dedication to public service and awareness of the social issues confronting a diverse global society.
5. Advance and disseminate knowledge by stimulating and supporting research and creative activities by students, faculty and staff.
6. Design and develop innovative and effective learning systems to meet contemporary educational needs.
7. Use modern technologies to enhance teaching, learning, research and administrative functions.
8. Provide an environment that allows for broad-based community involvement and participation in democratic civic life.
9. Provide support services and a physical environment that foster student success.
10. Offer cocurricular activities, including Division I-A athletics, which enhance intellectual, cultural, social, ethical, physical and emotional development.
11. Create and nurture an environment that attracts and retains students, faculty and staff who embody and promote cultural, racial and global diversity.
12. Provide educational experiences and programs to enhance mutual trust, respect, understanding and sense of community with people from all backgrounds and cultures and to ensure an international and global perspective.
13. Provide service for the public good.
14. Attract and manage resources to enable faculty, staff and students to be successful in meeting these goals.

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

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, skills, 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 in the context of their lives 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: CMU faculty and staff need to ensure that students gain the most possible from their years of study at CMU and that programs continue to meet standards of excellence.

Accreditations

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

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

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

The Graduate Council represents the graduate faculty and is charged with making recommendations to the Academic Senate concerning degrees, programs, standards, and policies of the College of Graduate Studies. The Dean of the College of Graduate Studies is the agent of the graduate faculty for the implementation and enforcement of college policies for both on and off-campus graduate programs.

The Graduate Council is a committee of the Academic Senate, charged to serve as the advisory and policy-making body for the College of Graduate Studies. The Council is concerned with the development and evaluation of all programs and policies pertaining to the operation of the College of Graduate Studies and the quality of graduate education both on and off campus. The Graduate Council makes recommendations to the Academic Senate in the following areas: new programs, program additions, modifications, consolidations, and deletions; minimum graduation requirements and approved department requirements for graduate programs; College of Graduate Studies' admission and dismissal policies and approved departmental policies; and policies and regulations for the College of Graduate Studies. Among its responsibilities, the Graduate Council is expected to: establish the guidelines for advising graduate students, establish guidelines for the Graduate Research Fellowship Program; and evaluate courses numbered 500 and above.

Faculty serving on the Graduate Council must be members of the Graduate Faculty. Nominations for the Graduate Council are forwarded to the Academic Senate from the Committee on Committees. The Council includes one faculty from each of the following: the College of Business Administration, the College of Education and Human Services, the College of Communication & Fine Arts, The Herbert H. and Grace A. Dow College of Health Professions, the College of Humanities and Social & Behavioral Sciences, and the College of Science and Technology. There are also five graduate faculty at large and two graduate students on the Graduate Council. Faculty members serve three-year staggered terms, and graduate students serve one-year terms. A representative of ProEd serves as an ex-officio member without vote. The Dean of the College of Graduate Studies is an ex officio member of the Graduate Council. In the absence of the dean, the Associate Dean represents the College of Graduate Studies in Council meetings, with full voting privileges; the Associate Dean of the College of Graduate Studies may also attend other meetings of the Graduate Council. Information regarding the current membership of the Graduate Council and the names of its officers is available from the College of Graduate Studies (989-774-4890) or the Academic Senate Office (989-774-3350).

Using this Bulletin

Take time to carefully read the general and academic information sections of this 2009-2010 Graduate Bulletin. These explain university policies and procedures that you will be expected to know, and they describe services and programs available to you. To find the department in your own area of interest, consult the Index of this Bulletin. Each departmental description begins with the chairperson’s office address and telephone number.
Office for Institutional Diversity

Denise O’Neil Green,
Associate Vice President for Institutional Diversity
Warriner 319; 989.774.3700; http://diversity.cmich.edu/

The Office for Institutional Diversity serves a leading role in promoting an institutional culture that values and supports diversity. We recognize the important role diversity plays in the educational process and seek to increase understanding and appreciation for diversity in each member of the university community.

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

Minority Student Services

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

The office works closely with diverse student groups in planning and implementing academic, social, and recreational activities. Specific programs and initiatives offered through the office include but are not limited to cultural celebrations, Supplemental Instruction, Men About Change mentoring program, and the Multicultural Award of Distinction, Lloyd M. Cofer and Multicultural Advancement scholarships.

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

Multicultural Educational Center

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

Native American Programs

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

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

Contact Information: Bovee University Center 125; 989-774-2506, website: http://diversity.cmich.edu/nativ/.

Gay and Lesbian Programs

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

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

GEARUP/CD Program

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

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


Upward Bound

The Central Michigan University Upward Bound is a federally funded pre-college program through the U.S. Department of Education and is designed to help economically disadvantaged and/or first generation college-bound students complete high school and prepare for college. CMU is the host institution for Upward Bound. The program intent is to motivate and encourage youth to complete high school and enter post-secondary education. Resource and assistance is offered in all aspects of the college admissions process. This includes, but is not limited to, financial aid and scholarships completion, college applications, college visits, as well as academic support workshops. It is here that students are offered free tutoring in all subjects. Weekly programs that highlight education, career, and social awareness are provided to open the eyes, hearts, and minds of the students. The Upward Bound motto is “Where Preparation Meets Opportunity!” We strive to give each student diverse opportunities to allow them to be exposed and prepared for every opportunity to assist them in their ambitions of obtaining a college education. Contact information: 313-873-3195; website: http://diversity.cmich.edu/upwardbound1.htm.
Diversity

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

Mission

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

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

To achieve these goals, OIA:

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

Highlights of Services

International Students

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

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

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

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

Faculty and Staff Exchanges

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

**Phi Beta Delta**

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

Community Activities

OIA works closely with community groups, individuals and institutions interested in international understanding and activities. It supports and/or sponsors programs that seek to respond to the international needs and interests of the community.
Study Abroad

Dianne De Salvo, Director
Bovee University Center 106; 989-774-4308; http://www.studyabroad.cmich.edu

CMU’s Office of International Education/Study Abroad (OIE/SA) offers over 100 approved study abroad programs in more than 30 countries. Study abroad provides students with opportunities to expand their view of the world and prepare them for a career in the global workforce. International study enhances students’ education in many ways; students have an opportunity to meet people with diverse cultural backgrounds, to gain global knowledge that is highly valued by modern employers, and to develop a sense of independence and self-confidence that leads to a lifetime of success.

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

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

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

Doctoral Degrees
- Applied Experimental Psychology
- Audiology
- Clinical Psychology
- Educational Leadership
- Health Administration
- History
- Industrial/Organizational Psychology
- Mathematics
- Neuroscience
- Physical Therapy
- School Psychology
- Science of Advanced Materials

Specialist's Degrees
- Educational Administration
- Psychological Services (School Psychology)

Master's Degrees
- Administration
- Apparel Product Development and Merchandising Technology
- Biology
- Broadcast and Cinematic Arts
- Business Administration
- Chemistry
- Chemistry, Teaching
- Communication and Dramatic Arts
- Computer Science
- Counseling, School Counseling, Professional
- Economics
- Education
- Educational Leadership
- Educational Technology
- Elementary Education
- English Language and Literature
- English Language and Literature: Children's Literature
- English Language and Literature: Creative Writing
- English: Composition and Communication
- Geographic Information Sciences
- History
- History, Joint
- Human Development & Family Studies
- Humanities
- Industrial Management and Technology
- Information Systems
- Mathematics
- Middle Level Education
- Music
- Neuroscience

Nutrition & Dietetics
- Physical Education
- Physician Assistant
- Physics
- Political Science
- Psychology, Experimental/Applied Experimental Psychology
- Psychology, Clinical Psychology
- Psychology, Industrial/Organizational Psychology
- Public Administration
- Reading and Literacy (K-12)
- Recreation and Park Administration
- Secondary Education
- School Principalship
- Sociology
- Spanish
- Speech-Language Pathology
- Special Education
- Sport Administration
- Teaching English to Speakers of Other Languages (TESOL)
- Therapeutic Recreation

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

Certificates
- Acquisitions Administration
- Autism
- Business Computing
- Data Mining
- Educational Technology
- European History
- General Administration
- Gerontology
- Health Services Administration
- Human Resources Administration
- Information Resource Management
- International Administration
- Leadership
- Modern History
- Organizational Communication
- Professional Development in Public Administration
- Public Administration
- United States History
University Services and Resources

Student Services

University Libraries

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

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

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

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

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

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

Clarke Historical Library

The Clarke Historical Library collects print and manuscript items regarding Michigan and the Old Northwest Territory. The Library's holdings are extensive. Over 76,000 printed items, 3,570 manuscript collections, 11,000 reels of microfilm, 16,000 visual images, and 2,300 maps document all aspects of life in Michigan. In addition to this main area of concern, the Clarke Historical Library has also developed a variety of "special" collections. These include the Lucile Clarke Memorial Children's Library, one of the finest collections of children’s literature in the country, the Class of 1967 Presidential Campaign Biographies collection, Native American material, the Central Michigan University archives, and the Wilbert Wright Collection of Africana and Afro-American.

Because of the uniqueness of much of the material in the Clarke Historical Library, items in the Library are not available for circulation but must be consulted in the Clarke Historical Library's reading room located in 142 Park Library. Hours of service are posted, but patrons may dial 774-3352 for Library hours or 774-3864 for reference assistance.

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

Instructional Materials Center

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

Information Technology at CMU

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

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

Student Portal. Central Michigan University offers a student-centered web portal located at: https://portal.cmich.edu. The portal is designed specifically with CMU students in mind, and provides students with comprehensive information in a number of different areas, such as activities, academics, employment, available services and access to a variety of individual records. The portal extends the on-line experience by allowing students to create their own personal web space to store documents, share photos, and even subscribe to their friends’ sites.
IT Help Desk. A technology help desk is housed in the first floor of Park Library, and is the first point of contact for all technology related questions. The IT Help Desk assists students, faculty, and staff with university-sponsored technology services, general computing questions, and computer repairs. Contact information for the Help Desk is provided below.

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

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

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

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

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

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

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

For a more complete overview of IT services available, please call the IT Help Desk at (989) 774-3662 or visit the IT Web site at http://www.oit.cmich.edu.

Office of Student Life

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

Student Activities and Organizations

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

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

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

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

Program Board

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

University Policy for Student Conduct

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

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

Sexual Aggression Services

The Sexual Aggression Services Coordinator, through the Office of the Dean of Students, coordinates services and educational programs on campus relating to sexual assault, stalking, and dating violence. The university encourages a proactive 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 is http://www.sapa.cmich.edu/.
Sexual Harassment Policy

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.

Student Ombuds Office

Jon Humiston, Student Ombuds Officer/President’s Office Assistant

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 Office.

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. See www.cmich.edu/ombuds for more information.

Student Disability Services

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

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

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

Career Services and Resource Center

The Career Service and Resource Center, located in the University Center, (989) 774-3068, careers @cmich.edu, works with students and graduates on career advising and job search strategies. The office helps students who are seeking advice on their career path along with helping to develop job-seeking skills, writing resumes, and interviewing techniques. An extensive career resource center is provided for use by all on-campus students and alumni. The resource center contains general career information, tips for seeking jobs, vacancy listings from a variety of sources, and information about potential employers in business, government, and education.

The center also coordinates on-campus recruiting by businesses, government agencies, and educational institutions and serves as a clearinghouse for employment opportunities through publication of a weekly vacancy bulletin.

Computer-based Testing Center

The Computer-based Testing Center provides testing services for students. This includes graduate entrance examinations, such as the Graduate Record Examination (GRE), Miller's Analogies Test, and Graduate Management Admissions Test (GMAT). Call 989-774-1092 for additional information or visit the website at http://academicaffairs.cmich.edu/CTBC/cbtc.shtml.

Child Care Options

The Mount Pleasant area offers a variety of child care resources. The Human Growth and Development Laboratory, through the Department of Human Environmental Studies, offers several half day preschool options including a Preschool Program, School Readiness Program, and Pre-Primary Impaired Program. These are offered in the fall, spring, and summer sessions and serve children 3-5 years of age. For more information please call (989) 774-3760 or (989) 774-1987.

The Student Employment Office assists in finding qualified students for at-home child care. The Housing and Dining Services Office, located in the Bovee University Center, as well as the Human Growth and Development Laboratory, provides a list of students each semester who are interested in providing child care.

There are a variety of home and center based child care options in the community. For information concerning child care in Clare, Gladwin, Gratiot, and Isabella Counties, call Child Advocacy 4/C of Central Michigan at (800) 552-4489.

Health and Wellness

University Health Services

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

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

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

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

Clinic Hours: University Health Services hours are 8:00 a.m.-5:00 p.m., Monday-Friday. A same day/future date appointment system minimizes waiting time. To schedule an appointment, call 989-774-5673. Walk-in service is available for urgent problems in Foust 200. A registered nurse is available at 989-774-6591 to answer questions about health-related concerns, including the quickest and most appropriate way to obtain care.

Clinical Services Available: Board certified family practice physicians work in teams with a nurse practitioner or physician assistant to provide care such as that available in a family physician’s practice, urgent care center, or community health department. Emphasis is on educating the student to become an informed health care consumer as well as an active partner in their treatment plan, and on supporting healthy decision making. Services include the diagnosis and treatment of illnesses and injuries, physical examinations, women’s health care, immunizations and travel health care, TB skin testing, and allergy injections with serum from the patient’s allergist. There is a laboratory and pharmacy on site. Both accept orders from outside providers. X-rays and other diagnostic imaging services are available through an agreement with a local radiology clinic.

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

Payment: There are fees for the care provided, but payment is not required on the date of service. The charges may be paid by cash, check, money order, credit or debit card in the Business
Office, Foust 108 within three business days or be placed on the student’s personal CMU account and paid by the statement due date. If the student provides proof of current health insurance coverage (a health insurance card or photocopy of it) and signs an authorization permitting Health Services to bill the health plan for the services, insurance billing is provided. The student remains responsible for payment of any co-pays and/or deductibles. Health Services participates with a number of health insurance and prescription drug plans. For additional information, contact the Business Office at (989) 774-3059.

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

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

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

**Additional Information:** For additional information about University Health Services visit the UHS website at [www.healthservices.cmich.edu](http://www.healthservices.cmich.edu).

### Counseling Center

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

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

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

### Residence Life Counselors in Residence

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

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

Sponsored by the Office of Residence Life, the Counselors in Residence program places licensed professional counselors and/or social workers directly in the residence halls. Their mission is to provide staff consultation, support, crisis intervention, and proactive prevention efforts addressing mental health issues, and to act as a bridge to partner offices supporting the personal growth and academic progress of students.

### Human Development Clinic

The Human Development Clinic provides counseling and assessment services for community residents, area schools, and Central Michigan University students. Advanced graduate students in counseling ordinarily perform these services under the supervision of the counselor education faculty members. Among the services provided are: individual counseling for children, adolescents and adults; family and couples counseling; play therapy for children; 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; 326 EHS Building.

### Psychological Training and Consultation Center

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

Speech, Language, and Hearing Clinics

The Speech, Language and Hearing Clinics are operated by the Department of Communication Disorders at CMU and at various ancillary facilities in the Central Michigan area. 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. In addition, the Audiology program is the first in the USA to be nationally recognized by full accreditation from the Accreditation Commission for Audiology Education of the American Academy of Audiology.

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

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

The Carls Center for Clinical Care and Education, Health Professions Building, 989-774-3904.

Student Enrichment

Brooks Astronomical Observatory

The Brooks Astronomical Observatory, located atop Brooks Hall, is administered by the Physics Department. The dome contains a modern 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 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 Physics Department for open night schedules or to arrange special tours and viewing sessions for groups.

The Museum of Cultural & Natural History

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

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

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

University Art Gallery

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

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

University Theatre

Each year the university theatre presents a season of six or seven major productions offering a wide range of periods and styles. Open auditions for each production are held for every area of the production. Audiences enjoy discounts on multiple ticket purchases, and there are special student rates for performances. For ticket information, call (989) 774-3874.

Student Media

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

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

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

Cocurricular Electronic Media. The Broadcast & Cinematic Arts Department operates the following facilities to provide professional training experiences:
Moore Hall Television. Operating locally over cable channel 34, Moore Hall Television offers broadcasting students practical experience in all phases of television programming including News Central, Mid-Michigan’s only daily television news program. Other series include game shows, movie reviews, and dramatic features.

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

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

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

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

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

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

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

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 a state of the art, holistic activity center focusing on fitness, wellness, and leisure pursuits for all members of the university community.

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

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

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

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

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

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

Complete food service operations are offered, including the Down Under Food Court (open Monday-Friday) and Blimpie Subs/Freshens Yogurt.

Printing Services
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 is located in the Combined Services Building. See the website at http://www.print.cmich.edu/prtservices.htm.
External Relations

Alumni Relations

The Alumni Relations Office exists to perpetuate and enhance the lifelong relationship between the university and its graduates.

Avenues to involve graduates and current students with CMU in a productive and positive manner are continually developed. Alumni are encouraged to return to campus and participate in traditional campus activities such as Homecoming and Alumni Reunion Weekend. Additionally, we encourage CMU alumni to get involved in their local Alumni Association chapters and clubs.

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

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

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

For further information, contact the Executive Director of Alumni Relations, located in the Carlin Alumni House; telephone (989) 774-3312 or toll free 800-358-6903 or see http://www.alumni.cmich.edu/default.asp.

Development

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

For assistance or additional information, contact the Vice President of Development and Alumni Relations (989) 774-2382.

University Communications

University Communications provides communication and marketing services that reinforce CMU’s goals, mission, key messages, and identity. Units include broadcast media relations, print media relations and news services, publications, marketing, photography and videography, licensing and advertising, and sports information.

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

University Communications 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.

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

The Office of Research and Sponsored Programs

The Office of Research and Sponsored Programs (ORSP) supports research and creative activities by undergraduate students, faculty and staff. Programs to assist undergraduate student research are the Research & Creative Endeavors Grants, Publication & Presentation Grants, and Summer Scholars Program. Faculty and staff research is supported through the Faculty Insight Teams program, Grant Development Reimbursement Awards, President’s Research Investment Fund, Research Excellence Funds and grants by the Faculty Research & Creative Endeavors Committee. ORSP organizes the annual Faculty Excellence Exhibition (FEE) and the Student Research and Creative Endeavors Exhibition (SRCEE) held each April. The office also assists faculty and staff in securing external support for research, academic programs, and other activities.

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

This section describes the university’s policies and procedures that affect graduate students and graduate programs. It is important to remember that these are the general policies; individual programs may have more rigorous standards for admission, program completion, or graduation. It is also important to remember that policies are not static. They are reviewed periodically, and sometimes, following appropriate university procedures, they are changed. When changed, they are printed annually in this Graduate Bulletin, and made immediately in the online version when necessary. The University recognizes that individual circumstances may create a situation in which it is appropriate to grant an exception to a policy given in this Bulletin. Students seeking policy exceptions should consult the College of Graduate Studies, Office of the Dean.

Admission

Application for Admission to Graduate Study

The College of Graduate Studies welcomes your application to CMU for graduate study. This is the procedure to follow:

1. Complete the Application for Admission form in the front of this Bulletin and return it to the Graduate Student Services office of the College of Graduate Studies with a check or money order to cover the application fee ($35 for U.S. citizens and resident aliens; $45 for international applicants). Additional application forms can be obtained from the Graduate Student Services office. 

   NOTE: If you have received a graduate degree and are applying to another graduate program, you must submit a $35.00 application fee. If you have been denied admission to a graduate program and are reapplying or applying to a different graduate program, you must submit a $35.00 application fee. 

   Note: the DHA degree is only offered off-campus and admission is through Off-Campus programs).

2. Some departments require additional application materials. When this Bulletin went to press, the following programs required application materials in addition to the College of Graduate Study’s application form: Audiology, Counseling, Educational Administration, Physical Therapy, Physician Assistant, Mathematics (doctorate), History (doctorate), MBA, Psychology (all programs), Special Education, and Speech-Language Pathology. Contact the department directly for information on required supplementary materials. Because other programs may also require supplementary materials, you are encouraged to consult the department in which you plan to pursue your graduate studies prior to submitting your application.

3. Request the Registrar of each college or university you have attended to send one copy of your official transcript of credits directly to the College of Graduate Studies. If you completed all of your undergraduate work at Central Michigan University and received your degree here, you may omit this step in the procedure. The College of Graduate Studies will obtain your CMU transcripts, but you are responsible for providing all other transcripts. All transcripts and other documents received by the university become the property of the university and will not be released. Copies will not be made for other than university use.

4. Take any standardized tests required by the department for the specific curriculum you are pursuing and request that a copy of the test results be sent to the College of Graduate Studies or to the appropriate department. Check with the department for information regarding required standardized tests.

   NOTE: Even when a department does not require a standardized test, such as the Graduate Record Examination, you will want to take the test and report your scores to CMU if you are applying for a fellowship.

Application Deadlines

For most degree or certificate programs, domestic students should begin the admission process at least 6 weeks before registration for the semester they plan to enroll. International students should begin the process 6-12 months before they intend to begin their graduate studies. While these deadlines apply to most programs, some departments consider all graduate applications on a specific date. The following programs currently have specific application deadlines:

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<thead>
<tr>
<th>Program</th>
<th>Application Deadline</th>
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<tr>
<td>Audiology</td>
<td>February 1</td>
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<tr>
<td>Com. &amp; Dram. Arts</td>
<td>October 15 for spring semester; March 15 for fall semester</td>
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<tr>
<td>Counseling</td>
<td>September 1 for spring semester; February 1 for summer or fall semester</td>
</tr>
<tr>
<td>Educational Leadership</td>
<td>March 1, or until full</td>
</tr>
<tr>
<td>Health Administration (DHA)</td>
<td>April 1 (Off-Campus Programs only)</td>
</tr>
<tr>
<td>History</td>
<td>Joint M.A./Ph.D.: January 3; Traditional M.A.: July 15 for fall; November 1 for spring semester</td>
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<tr>
<td>Neuroscience</td>
<td>March 1</td>
</tr>
<tr>
<td>Physical Educ. &amp; Sport</td>
<td>April 1, Feb. 1, Aug. 1</td>
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<tr>
<td>Physical Therapy</td>
<td>November 1</td>
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<tr>
<td>Physician Assistant</td>
<td>October 1</td>
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<tr>
<td>Psychology, Applied</td>
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<tr>
<td>Experimental</td>
<td>February 1</td>
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<tr>
<td>Psychology, Clinical</td>
<td>December 15</td>
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<tr>
<td>Psychology, Experimental</td>
<td>February 1</td>
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<tr>
<td>Psychology, I/O</td>
<td>January 1</td>
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<tr>
<td>Psychology, School</td>
<td>January 15</td>
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<tr>
<td>Speech Pathology</td>
<td>February 1</td>
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<tr>
<td>Sociology</td>
<td>April 1</td>
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Requirements may change, so all applicants, regardless of their field of specialization, should contact their specific departments to find out what, if any, application deadlines may exist.

Processing Time

The student is normally notified of an admission decision six weeks after the completed application and supporting documents are received. This period is usually sufficient for receipt of transcripts and test results, and for departmental review of the application. If transcripts or test results are delayed, the process will take longer. Students who have not received notification of an admission decision after six weeks should contact the College of Graduate Studies, unless they have applied to a program where all applications are considered after a specific date. Questions regarding admissions should be directed to the admissions specialist in the College of Graduate Studies (989-774-GRAD).

NOTE: The above paragraph refers to admission to degree or certificate granting programs. There is no delay for admission as a non-degree student.

(continued)
CAUTION: Before coursework can be started, a student must apply for and be admitted to a program or be admitted as a non-degree/certificate student. Courses taken as a non-degree student may or may not be counted toward a graduate degree program. (See section titled “Types of Admission”.)

Letter of Admission

The College of Graduate Studies alone determines non-degree/certificate admission. Admission to a degree or certificate-granting program is always contingent upon departmental approval, so all applications for degree or certificate-granting programs are sent by the College of Graduate Studies to the appropriate departments. After a department evaluates the student’s application for admission and determines whether to recommend the student for admission, the department forwards its recommendation to the College of Graduate Studies. The College of Graduate Studies provides the student with official notification of the admission decision.

Using the department’s recommendation, the College of Graduate Studies either denies admission or sends the student a Letter of Admission. The letter indicates the student’s admission status: regular, conditional, non-degree, provisional, or concurrent as a graduating senior. Only the College of Graduate Studies has the authority to admit graduate students. A Letter of Admission is valid for one year. If a student does not register for classes within one year after being admitted for graduate study, the student is required to reapply before taking classes.

Types of Admission

There are five categories of admission at CMU: regular, conditional, non-degree, provisional, and concurrent as a graduating senior.

Graduate students should be aware that concentrations in some disciplines may be open only to full-time, on-campus students because of lack of departmental offerings during evenings, Saturdays, and summer sessions. The graduate student who cannot attend full-time should check with the department(s) in question about frequency of offerings before seeking admission to a concentration in the department.

All references to grade points and grade point averages are based on a four-point scale. (The adaptation of this scale to the graduate school marking system at Central Michigan University is described in the section on grades later in this Bulletin.)

NOTE: An admission to the College of Graduate Studies is valid only if the accepted applicant registers as a graduate student within one calendar year of the effective admission date.

1. **REGULAR ADMISSION.** Applicants holding a baccalaureate or equivalent degree from a college or university of recognized standing (recognized at the time the student attended) may be granted regular admission to a graduate degree or certificate program, provided they have established an acceptable record of general scholarship (normally an overall cumulative undergraduate grade point average of at least 2.7 or, optionally, 3.0 in the final sixty semester hours of graded coursework toward the bachelor’s degree. At least 60 hours of undergraduate coursework must be graded to allow grade point average calculation). Additionally, applicants must meet the admission requirements of the department in which they wish to concentrate graduate study.

2. **CONDITIONAL ADMISSION.** Conditional admission to graduate study, even when accompanied by assignment to an academic advisor, does not constitute final admission. You are considered to be admitted only when regular admittance status has been granted. The university may grant conditional admission to a degree or certificate program to an applicant who holds a baccalaureate degree or its equivalent from a college or university of recognized standing (recognized at the time the student attended) but who does not meet all the requirements for regular admission, or whose personal circumstances a department may wish to assess prior to recommending regular admission. For a student who may have insufficient hours of credit in the proposed area of concentration or a slightly deficient grade point average, whether cumulative or in the area of concentration, the department concerned may recommend that the student be admitted with the understanding that he or she makes up the deficiencies and maintains an acceptable level of scholarship in the first graduate coursework. Courses taken to make up admission deficiencies in preparation for regular admission may not be counted toward graduate degree or certificate requirements.

Conditional admission to graduate study, even when accompanied by assignment to an advisor on a specific curriculum, does not constitute final admission to that curriculum. A student cannot be granted a degree or certificate while having conditional admission status.

A student who was initially granted conditional admission, is considered to be regularly admitted to a specific curriculum only after he or she has:

- a. Fulfilled all the prerequisites for admission to the curriculum,
- b. Requested and been granted regular admission status through a petition for reclassification process. A student who is not sure of his/her status may request clarification from the advisor or the College of Graduate Studies,
- c. Submitted an Authorization of Degree Program - Graduate or Certificate Program form approved and signed by the curriculum advisor.

3. **NON-DEGREE ADMISSION.** If you are: 1) undecided as to curriculum choice, or 2) do not wish to earn a degree or certificate, or 3) do not meet the requirements for regular or conditional admission, you may apply for non-degree admission. As a non-degree matriculant, you may register for courses for which you meet the prerequisites. NOTE: Some courses are not open to non-degree students.

A non-degree student who applies for regular or conditional admission will be evaluated just as all applicants are evaluated, and the admission decision will be communicated to the student by the College of Graduate Studies. When you can apply for regular or conditional admission depends on the reason for the non-degree admission. If you are admitted to non-degree status because of failure to meet the requirements for regular or conditional admission to a degree or certificate program, you may submit an application for admission to that or another program once you have met the requirements to the satisfaction of the College of Graduate Studies and the department which offers the program. Consult the department chairperson or a graduate advisor in the proposed field of study for assistance in selecting courses to make up deficiencies.

The “undecided” student who otherwise has met admission requirements may apply for admission to a degree or certificate program at any time.

Non-degree students may take an unlimited number of courses while having non-degree status, provided that they maintain an acceptable GPA (see section on Academic and Retention Standards). However, credits earned during non-degree status may not be counted toward a degree or certificate if they were used to make up deficiencies in preparation. A maximum of nine credits earned during non-degree status may be applied toward a degree. A maximum of six credits earned during non-degree status may be applied toward a certificate. A department may provide a lower or higher limit (see the individual program description). The advisor will determine which previously earned credits will be counted toward the graduate program.
Only in unusual circumstances, international students holding an F-1 (student) visa have non-degree status. International students holding a J-1 (exchange) visa may be allowed non-degree status.

Changing from non-degree to either regular or conditional status requires that the student complete an Application for Admission, which is the regular application for the College of Graduate Studies. No fee is required, if the student already paid when applying for non-degree status.

4. PROVISIONAL ADMISSION

Frequently students apply to the College of Graduate Studies during their senior year, with the understanding that they will complete the baccalaureate prior to beginning graduate studies. When these students are accepted into graduate school -- be it regular, conditional, or non-degree admission -- they are granted provisional admission, contingent upon providing the College of Graduate Studies with a final transcript showing completion of the baccalaureate degree. It is the student’s responsibility to notify the College of Graduate Studies when he or she has completed the undergraduate degree requirements and to request that the registrar at the college or university issuing the diploma send an official copy of the final transcript showing the degree earned. The transcript must be sent from the registrar directly to the College of Graduate Studies. A final decision relative to the applicant’s admission will be made and the student will be notified of the decision following receipt of the foregoing materials by the College of Graduate Studies.

In some departments, a student who presents an unofficial transcript or unofficial test scores may be granted provisional admission pending receipt of official documents. It is the student’s responsibility to arrange for the official documents to be sent to the College of Graduate Studies.

A student with provisional admission may register for classes for one semester while we await the necessary documents. If the student fails to produce the required documents -- proof of degree, official transcripts, and official test scores -- the admission will be converted to a denial and the student may be removed from classes.

5. CONCURRENT AS A GRADUATING SENIOR.

An undergraduate student may be permitted to register concurrently for graduate credit for the semester or session in which requirements will be completed for a baccalaureate degree, provided that the following conditions are met: 1) the student will be taking no more than 12 undergraduate credits during the semester of concurrent registration; 2) during the semester of concurrent registration, the student enrolls in all remaining courses required for graduation; 3) the student’s total credit load (graduate and undergraduate courses) will not exceed 15 credits during the semester of concurrent registration; 4) the student has an undergraduate grade point average of at least 2.7 or, optionally, 3.0 in the most recently completed sixty semester hours of graded coursework toward the bachelor’s degree; and 5) the student is admitted to the College of Graduate Studies, either conditionally or with non-degree status; (see sections on each type of admission for an explanation of the conditions associated with each). Students who do not comply with the conditions of concurrent admission may be dropped from their graduate classes. Students who fail to graduate at the end of the concurrently-enrolled semester or session will not be permitted to continue in the College of Graduate Studies until all requirements for the undergraduate degree have been met. Exceptions to this policy can be granted under any of the following circumstances:

1) students who have completed all requirements for the bachelor’s degree EXCEPT student teaching may be granted concurrent status prior to student teaching if they meet conditions 4-5 above;

2) students admitted to a combined BA/MA or BS/MS program at CMU may be granted concurrent status if they have completed at least 86 undergraduate credits and satisfy condition 4 above;

3) students may appeal to the Dean of the College of Graduate Studies for a policy exception to grant admission as concurrent students.

Special Admission Considerations

International Student Admission

International applications for admission require longer processing time than other applications. Prospective students should be certain to allow ample time for documents to be sent to the College of Graduate Studies and should recognize that notice of admission may take longer than expected to reach them. Also, certain programs have application deadlines, usually early in the year, and this should be taken into consideration when applying for admission.

Guidelines for International Applicants

1. At least six months before the beginning of the semester in which he or she wishes to begin study, an applicant who is a citizen of a country other than the United States must submit an International Graduate Student Application for Admission along with the $45 application fee. (U.S. citizens and international applicants who are permanent residents of the U.S. need not use the International Student Application, but should submit a Domestic Application for Admission instead.)

2. The cost for one academic year (nine months) of graduate study in 2005-06 was approximately $19,200 for master’s level students and $19,851 for doctoral level students. These figures do not include initial travel expenses or any summer expenses, including tuition, fees, or living expenses. Applicants must show proof of sufficient funding for at least their first academic year of study. Proof of funding consists of a completed Financial Support Form and an original copy of a current bank statement. Most international students are eligible for graduate assistantships, as well as fellowships, but the university has no other funding for international students and assumes no financial responsibility for them at any time. For more information on financial aid opportunities, see the Financial Aid Section of this Bulletin.

3. Students must submit a complete Central Michigan University medical information form when they arrive on campus.

4. All international students are required to have an approved health and accident insurance policy for the duration of their study. If a student already has health insurance, he or she must provide an English translation of the insurance policy as proof. If the policy is equal to or better than the CMU plan, the student will not be required to purchase other insurance.

5. All prospective students must demonstrate competency in the English language in one of the following ways:

a. Achievement of a satisfactory score on the Test of English as a Foreign Language (TOEFL), which is administered in the U.S. and other countries by the Educational Testing Service, Princeton, NJ, 08541-615, or on the International English Language Testing System (IELTS). Score requirements are explained later in this section. Requests to substitute another test will be evaluated individually with minimum scores to be established by the College of Graduate Studies when necessary.

b. Satisfactory completion of a course of study (for example, high school or baccalaureate degree or graduate degree) in which the language of instruction was English.

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International students who are issued an I-20 to Central Michigan University may be required to complete a number of hours factors. If granted conditional or non-degree admission, the student’s principal areas of preparation, and other relevant qualifications, acceptable evidence of the institution’s competence. Upon arrival at the university, they will be required to take an English proficiency test administered by CMU’s English Language Institute (ELI). The results of the test will be used to determine the number of courses they will be required to take through the ELI. Such conditionally admitted students will be allowed to take a restricted number of courses in their academic disciplines concurrently with the ELI courses and must complete all required ELI courses by the end of their first year at CMU. Once satisfactory proficiency in English has been demonstrated, as determined by ELI policies, these restrictions will be removed. Please note that students are required to pay tuition for ELI courses just as they would for any other CMU course.

Applicants with TOEFL scores from 173 to 210 CBT, 500 to 549 PBT, or 61-78 iBT or iELTS scores of 5.5 or 6 may be granted conditional admission. Upon arrival at the university, they will be required to take an English proficiency test administered by CMU’s English Language Institute (ELI). The results of the test will be used to determine the number of courses they will be required to take through the ELI. Such conditionally admitted students will be allowed to take a restricted number of courses in their academic disciplines concurrently with the ELI courses and must complete all required ELI courses by the end of their first year at CMU. Once satisfactory proficiency in English has been demonstrated, as determined by ELI policies, these restrictions will be removed. Please note that students are required to pay tuition for ELI courses just as they would for any other CMU course.

TOEFL or IELTS Scores

Applicants with TOEFL scores of 213 CBT, 550 PBT, or 79 iBT and above, or iELTS scores of 6.5 and above may be granted regular admission. Some programs, however, require higher TOEFL scores and others require all admitted international students to take an English proficiency test after arriving on campus.

Applicants with TOEFL scores from 173 to 210 CBT, 500 to 549 PBT, or 61-78 iBT or iELTS scores of 5.5 or 6 may be granted conditional admission. Upon arrival at the university, they will be required to take an English proficiency test administered by CMU’s English Language Institute (ELI). The results of the test will be used to determine the number of courses they will be required to take through the ELI. Such conditionally admitted students will be allowed to take a restricted number of courses in their academic disciplines concurrently with the ELI courses and must complete all required ELI courses by the end of their first year at CMU. Once satisfactory proficiency in English has been demonstrated, as determined by ELI policies, these restrictions will be removed. Please note that students are required to pay tuition for ELI courses just as they would for any other CMU course.

Admission of CMU Faculty and Staff

A faculty member or administrator (PA) at CMU may not be admitted to a graduate degree or certificate program or earn a graduate degree or certificate in a program in his or her own department. A faculty member or administrator (PA) at CMU may be admitted to a graduate degree or certificate program and earn a graduate degree or certificate in a program in his/her own college, provided that he/she has written permission from the dean of his/her college. The written permission will be retained in the student’s file in the College of Graduate Studies. Faculty members and administrators may be admitted to degree or certificate programs that are outside their own college.

Faculty members and administrators in off-campus programs may pursue a graduate degree or certificate through Off-Campus Programs provided that he/she has permission from the Dean of the College of Graduate Studies.

Admission with Baccalaureate from Schools without Recognized Standing

An applicant who holds a baccalaureate or equivalent degree from an institution which does not have recognized academic standing may be granted regular or conditional admission to a degree program on the recommendation of the chairperson of the academic department concerned and the concurrence of the Dean of the College of Graduate Studies or, optionally, non-degree admission at the discretion of the dean. Such an admissions decision will be based on a careful evaluation of the applicant’s qualifications, acceptable evidence of the institution’s competence in the student’s principal areas of preparation, and other relevant factors. If granted conditional or non-degree admission, the student may be required to complete a number of hours of graduate or upper-level undergraduate qualifying coursework at CMU in the proposed field of study with a grade point average of 3.0 (B) or higher to become eligible to apply for regular admission to a degree or certificate program. An applicant admitted with such a stipulation is advised to consult the chairperson of the department in which he or she wishes to study for help in selecting appropriate qualifying courses. No department, however, is obligated to accept the applicant upon the completion of qualifying coursework if, in its judgment, the applicant is still not appropriately prepared for degree or certificate work. Qualifying coursework clearly stipulated as preparatory to normal degree or certificate requirements may not thereafter be counted toward any graduate degree or certificate program.

Accelerated Master's Degree Program

The Accelerated Master’s Degree Program (AMDP) allows students to reduce the total number of credits required to complete their undergraduate and graduate degrees by applying up to 12 credits (500 and 600 level courses) towards graduation requirements on both degree programs. Generally, courses required on the undergraduate major may not be counted on the graduate program. Students must enroll for the courses at the graduate level and may not be enrolled in more than 15 credit hours (graduate and undergraduate combined) per semester. Not all programs offer the Accelerated Master’s Degree Program; a master’s degree granting program must be approved through the curricular process, to offer an Accelerated Master’s Degree. Admission Procedures. Each program will determine admission criteria, which will be at least as rigorous as admission requirements for admission to the master’s program, and procedures for its Accelerated Master’s Degree. Generally, students will apply during their junior year for admission into the Accelerated Master’s Degree Program to begin fall semester of their senior year. In most cases, the baccalaureate degree will be awarded within one year after admission into the Accelerated Master’s Degree Program. Prior to earning the baccalaureate degree, students must earn at least an “B” in each course which applies to the graduate degree; if students do not earn a “B” in each course which applies to graduate degree, they must apply for readmission into the master’s program.

Military Service Commission

A commission in the United States Army may be obtained while enrolled in graduate school. Interested individuals should contact the chairperson of the Military Science Department, telephone (989) 774-3049.

Off-Campus Enrollment

Students who have been admitted to the College of Graduate Studies may enroll in graduate courses scheduled through Off-Campus Programs.

Non-degree admission is available for students who wish to take continuing education courses without pursuing a degree or certificate.

Courses taken through Off-Campus Programs may count toward the satisfaction of requirements in appropriate authorized graduate degree or certificate programs. It is the student’s responsibility to consult his or her advisor to determine which courses will apply in specific programs.

* NOTE: International students who are issued an I-20 to pursue graduate studies at CMU are restricted to taking classes on the Mount Pleasant campus unless there is a compelling and legitimate academic objective that will be achieved by taking the class through Off-Campus Programs. The department chair or graduate program coordinator of the student’s graduate program must approve any off-campus coursework.
Duration of Admission Status: Time for Completion of Degree

After admission to a graduate program of study, students are expected to complete degree or certificate requirements in a responsible and timely manner. For full-time students, two calendar years should be adequate for the completion of most master's degree programs; five calendar years should be adequate for the completion of most doctoral programs. Part-time students may need a somewhat longer period to meet these requirements, but in all instances, coursework and other requirements must be completed within the following time limitations:

- Graduate Certificate: within four years;
- Master’s or Specialist’s degrees: within seven years;
- Doctoral Degrees: within eight years if the student had a relevant graduate degree when beginning the program OR within ten years if the student began doctoral study without a relevant prior graduate degree.

Extension of Time Requests. Extension of time requests are serious and approval by the advisor and department do not guarantee approval by the College of Graduate Studies. Extension of time to complete a degree or certificate are rarely granted and only considered if there are clearly extenuating circumstances. Typically “life” events (employment changes, responsibilities, or promotions, marriage and births) do not count as extenuating circumstances. Students must demonstrate the following for their requests to be considered by the College of Graduate Studies: compelling extenuating circumstances, current knowledge in the subject matter they wish to extend, and steady progress toward the certificate or degree. Students that have not been enrolled at CMU for more than two years are not making steady progress. Transfer credit is not eligible for extension consideration. Extension requests are limited to a one time request of twelve to eighteen months. If an extension is granted, a second extension is highly unlikely and students should plan accordingly. Extension of time request forms are available on the College of Graduate Studies website: www.grad.cmich.edu.

Admission to the College of Graduate Studies is valid for four to ten years (depending on the degree or certificate sought) after the date of first admission, except by cancellation for cause, or by one of the following provisions:

1. Degree or Certificate Recipients. The student’s admission to the College of Graduate Studies is terminated upon completion of all requirements for a degree or certificate. (This provision does not apply to students who earn a master’s degree while enrolled in a doctoral program, or to students who earn a certificate while enrolled in a master’s or doctoral program.) To resume graduate study thereafter on a second degree program or as a non-degree student, the student may apply for readmission by submitting an Application for Admission.

2. Termination of Admission. This policy is explained under the “Duration of Admission Status,” noted above.

3. Inactive Status. If a student does not register for the initial graduate work within one year after the date of admission to the College of Graduate Studies, or if in completing one or more courses the student earns no further graduate credit at this university for three consecutive years, the student is classified as inactive and the admission is terminated. If the student has completed one or more courses, the permanent record card is retained by the Registrar. The student may thereafter apply for readmission to resume graduate study at a later date by submitting an Application for Admission and supplying all other documents requested by the department concerned. Effective in 1991, the College of Graduate Studies retains original application materials for 7 years (unless the degree or certificate is awarded), so transcripts that were submitted with the original application do not need to be resubmitted. If a student became inactive prior to 1991, check with the College of Graduate Studies to determine whether transcripts must be submitted from other universities.

If a student does not earn graduate credit at CMU for seven consecutive years, the student's original application, letters, transcripts from other universities, and other materials will be destroyed. If one wishes to apply for readmission after that length of time, all materials, including a new application, transcripts and other documents requested by the department will need to be submitted.

Changing Degree Programs

To change graduate programs, the student should send a completed Request for Change of Program form, along with a check for $35.00 to the College of Graduate Studies. The request will be forwarded to the new department for approval. Acceptance into one graduate program does not guarantee acceptance into another.

If the program change is approved, the student should meet with the new academic advisor and complete a new Authorization of Degree Program - Graduate form or Certificate Program form.

Recomputing Grade Point Average

Students who transfer from one graduate program to another may file a Recomputation of Grade Point Average Petition. If approved by the advisor, department chair, and Dean of the College of Graduate Studies all courses completed on the original graduate program will be disregarded on the second program plan, all grades on previous coursework will be disregarded, and the students will begin the new program with no cumulative grade point average. The Recomputation of Grade Point Average Petition must be filed within one calendar year of beginning the new program. NOTE: All courses will still remain on the student’s transcript although the grades will not contribute to the grade point average.

Registration Information

Students are eligible to enroll in graduate level courses after they receive their admission letter. The letter will show whether they are approved for Regular, Conditional, Provisional, Non-Degree, or Concurrent admission. Initial registration must occur within one calendar year of the admission date or the student will need to reapply.

The information you need regarding dates and procedures for Phase I registration (course selection), Phase II registration, and change of registration for a particular semester is published by the Registrar’s Office in the Class Schedule. The CMU Class Schedule is available in the Bovee University Center Bookstore or the Registrar's office, Student Service Court, and the Registrar's webpage (http://www.registrar.cmich.edu/). Registration for fall semester takes place from March to July and again in August; for spring semester, it takes place from October to November and again in January; and registration for summer sessions takes place from February to March and again in May and June. Exact dates are printed in the Class Schedule or may be obtained from the Registrar's Office, 299 Warriner Hall, (989) 774-3261.

NOTE: The University reserves the right to withdraw any class in which too few students enroll.
Registration Procedure

Graduate students may register any time during the registration period via the CMU Portal (https://portal.cmich.edu). It is recommended that they register during the special computer time reserved for graduate students. The procedures for registration are described in the Class Schedule. However, before registering for courses, students should verify that they meet the prerequisites. This is particularly true for internships, practica, independent studies, and thesis/dissertation credits.

CAUTION: Students should always consult their advisors to determine which classes to take.

NOTE: Occasionally a student who is trying to register is told that there is a “hold” on his or her registration. Students who receive this message should contact the College of Graduate Studies at (989) 774-GRAD to determine the cause of the hold.

Student Photo Identification Card

Once you have initially registered for courses at Central Michigan University you will need to get a photo identification card, available from the Campus ID Card office in Bovee University Center Room 205. This campus ID card allows students to use the various student services described in this bulletin. Banking services using the CHIP ID card are also available. 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. 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. Contact the Campus ID Office for additional information at 989-774-3484.

Internships, Practica, Independent Studies, Theses, Doctoral Projects, Dissertations

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

In addition, students may NOT enroll for more than three thesis/doctoral project/dissertation credits until the Prospectus and committee composition have been approved at the department level and by the Dean of the College of Graduate Studies. This is to ensure that if the Prospectus is not approved by the Dean of the College of Graduate Studies that the student has not wasted valuable time, credits, and resources. Projects undertaken prior to the Dean of the College of Graduate Studies approving the Prospectus may be denied and the project deemed invalid.

Auditing Courses

If you do not wish to take a graduate course for credit you may register as an auditor, provided you obtain approval from the chairperson of the department prior to registration and are otherwise qualified. To qualify to audit a graduate course on or off campus you must meet the usual admission requirements for courses at or above the 600 level. No credit or grade is granted for an audited course, but such credit as the course normally would carry is included as part of your total load. No change from regular registration to audit nor from audit to regular registration is permitted after the completion of the Drop and Add period. Your responsibility to the class being audited is determined by the instructor of the class. Auditors pay the same fees required of students taking the course for credit.

Change of Registration (Drop/Add)

Students may drop or add classes any time during the Phase I or Phase II registration periods using the CMU Portal, or in person either in the Registrar’s Office (Warner 212) or the Student Service Court (UG 119). Information regarding dates and procedures may be found in the appropriate Class Schedule.

Withdrawing from a Class After the Drop/Add Period

The following procedures apply to students who desire to withdraw from a class after the official Drop/Add period listed in the Class Schedule.

1. Students should obtain a Withdrawal Request Card from the Registrar’s Office, 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 receives a properly completed card, before the published deadline.

2. Students will receive Ws 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 dropped 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 Academic Integrity Policy.

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.

Withdrawing from the University

Graduate students who wish to withdraw from the university should consult the Registrar’s Office in order to fulfill all requirements for withdrawing. The schedule of fee refunds is published in the university’s Undergraduate Bulletin and in the Class Schedule for each university session.

Involuntary Withdrawal

Students who are dismissed for administrative or disciplinary reasons or students who owe past due amounts may be subject to involuntary withdrawal from classes and will receive a “W” for each class as an indicator of withdrawal. In addition, students living in residence halls with a past due balance may have their meals and long distance telephone privileges discontinued until their accounts are brought to a current status. Any delinquencies in the Family Housing Apartments may result in the initiation of eviction proceedings.

University staff will counsel students who:

a. engage or threaten to engage in behavior that poses a danger of causing physical harm to self or others, or

b. engage or threaten to engage in behavior that would cause significant property damage, or directly and substantially impede the lawful activities of others.

In situations a. and b. above, the Dean of Students or designee may refer a student to the Behavior Evaluation Team to assist the student in functioning effectively within the university environment. Referral to the Behavior Evaluation Team does not preclude removal from the university, or university housing, in accordance with provisions of the Code of Student Rights, Responsibilities and Disciplinary Procedures and/or the Housing Agreement. A student referred to the Behavioral Evaluation Team shall be notified in writing, and shall be provided written information on the procedures to follow.
Religious Holidays

It is Central Michigan University policy to permit students to be absent from classes or examinations for reason of observing religious holidays. Students are allowed to make up course requirements when they are unable to avoid a conflict between their academic and their religious obligations. Absence from classes or examinations caused by observing religious holidays does not relieve students from responsibility for any part of the coursework required during the period of absence. It is the obligation of students to provide faculty with written notice of the religious holiday they will be observing and the date on which they will be absent at least two weeks prior to the date of the religious holiday. Students who miss classes or are absent on days of examinations or class assignments shall be offered an opportunity to make up the work, without penalty, unless it can be demonstrated that a makeup opportunity would interfere unreasonably with the delivery of the course. Should disagreement arise over any aspect of this policy, the parties involved should contact the department chair, the dean of the College or the Ombudsperson. Final appeals will be resolved by the Provost.

Academic Load

The College of Graduate Studies considers a normal load for full-time resident study to be 9-12 hours in the fall or spring semester and 4-6 hours in a six-week summer session. A graduate student may not enroll for more than 15 graduate credits in the fall or spring semester, nor may the student enroll for more than 15 credits in the two summer sessions combined. Exceptions to the limitation are automatic for programs (e.g., Physical Therapy; Physician's Assistant) that require more credits in a given semester. Other exceptions to the limitation require approval of the graduate advisor and the Dean of the College of Graduate Studies. Credits for thesis or dissertation are not counted in this total.

To qualify for financial benefits as a full-time student under programs of the Veteran's Administration, and/or to qualify for financial benefits as a full-time student under programs of the Social Security Administration and/or for certain loan agreements, students must carry a minimum of nine credit hours during the fall and/or spring semester. For shorter sessions, contact the financial aid office for information on minimum loads for full-time status.

Unless financial or immigration requirements necessitate defining a minimum number of hours for status as a full-time graduate student, there is no minimum load requirement for graduate studies. It is expected that students will assess need, ability, and other factors judiciously and register for a class load that permits them to maintain academic standards.

In order to use CMU resources (e.g., computers, laboratories, equipment, faculty) during the regular academic year, graduate students must be registered for a minimum of one credit hour.

Continuous Registration. Any on-campus student who has completed all academic course work except the final project (Plan B project or internship, thesis, doctoral project, dissertation) must be enrolled in at least one CMU graduate credit hour each fall and spring semester until graduation (summer sessions as well if summer course work is normally required in the program). The Continuous Registration for Final Research Project (course 619) within the student's home department can fulfill this one credit hour requirement.

If, after all academic course work except the final project is completed, a student does not enroll each fall and spring semester (and summer, where appropriate) until graduation, the student must enroll retroactively for each missed semester (including summer, where appropriate) once s/he returns to complete the project. A student can request a leave of absence by submitting a Leave of Absence Request form to the Dean of the College of Graduate Studies; if approved, continuous registration will be waived during the approved leave period. Regardless of whether the student has a leave of absence, the student must still complete the degree within the time-to-degree limitations set forth under the degree requirements.

Thesis/Doctoral/Dissertation:

1. Students must successfully defend his/her thesis/doctoral project/dissertation before the beginning of the semester (defined by the first day of class) in order to avoid paying for the 619 continuous enrollment credit.

2. If a student successfully defends his/her thesis/doctoral project/dissertation before the beginning of the semester, he/she will receive "exempt" status for one semester. If the student does not complete the thesis/doctoral project/dissertation project outline by the College of Graduate Studies within that semester, the student will be charged for the 619 continuous enrollment credit each semester until they graduate.

Internships

Students completing internships will be given one academic year beyond their internship course to complete their internship and graduate. After that year, the student will be charged for the 619 continuous enrollment credit each semester until they graduate.

Comprehensive Examinations

Students will be given one semester after their comprehensive examination course to take their examination. If the student does not take the comprehensive examination the next semester or fails, they must register for 619 continuous enrollment credit until they graduate or do not pass the exam.
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 acknowledgment 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.

C. Fabrication, Forgery and Obstruction

Definitions
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 results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing of the university in carrying out, reporting, or exhibiting the results of research or in publishing, exhibiting, or performing.
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 inappropriate 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.
1. 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.
2. 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.
3. 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 (continued)
Instructors are encouraged to report incidents of violations. Neither the instructor nor the student may be represented or accompanied by an attorney or any other advisor. 1 2

At any meeting, the instructor will inform the student of the details of the alleged violation and will give the student a copy of the Policy on Academic Integrity. It will be the responsibility of the instructor to present evidence of the alleged violation of the Policy on Academic Integrity. The student will be provided the opportunity to respond to the allegation and may explain any suspected or alleged misconduct by presenting evidence, giving additional information relevant to the matter, explaining extenuating or mitigating circumstance, or acknowledging a violation.

If the student declines to discuss the matter or attend a meeting with the instructor, or is unavailable for more than ten (10) business days, the instructor shall make a determination as to whether a violation of this Policy has occurred and what the appropriate sanction will be.

If, after completing the above process, the instructor believes there is a preponderance of evidence that the student violated the Policy on Academic Integrity, the instructor may make an admonition to the student (i.e., an oral statement that the student has violated the Policy on Academic Integrity) or impose one or more of the following:

a. Warning. A written notice that the student has violated the Policy on Academic Integrity and that further violation may result in additional sanctions. Faculty are encouraged to make a copy of this letter part of a file on the violation maintained in the Office of Student Life or the College of Graduate Studies.

b. Revision of Work. A requirement that the student revise or replace the work in which the violation of the Policy on Academic Integrity occurred. The instructor may assign a deferred grade pending the replacement or revision of the work.

c. Reduction in Grade. The grade on the assignment or in the course may be lowered.

In addition to the above sanctions, an instructor may refer the matter to the Office of Student Life or the College of Graduate Studies for formal proceedings seeking additional sanctions under the Code of Student Rights, Responsibilities and Disciplinary Procedures.

When an instructor decides to impose any sanction(s) the instructor will notify the student of this decision by sending a letter to the student through mail. The letter will inform the student of the sanction(s) imposed because of the violation of the Policy on Academic Integrity. The notice will be mailed to the last address for the student on file with the University Office of the Registrar. The notice will be deemed received two (2) days following the date the notice is posted at facilities of the United States Post Office. In the absence of mailing, personal delivery to the student cited, or delivery to the last home address on file in the Office of the Registrar constitutes proper notice. If personal delivery to the student or delivery to the last home address is used, the date notice is so delivered shall be deemed the date the notice is received. A faculty member is encouraged to make a copy of this letter part of a file on the violation maintained in the Office of Student Life or the College of Graduate Studies.

Instructors are encouraged to report incidents of violations of this Policy on Academic Integrity and any sanctions they have imposed to their department chairs and / or the program directors, and to the director of the Office of Student Life (when the incident involves an undergraduate student) or the Associate Dean of the College of Graduate Studies (when the incident involves a graduate student).

The Office of Student Life or the College of Graduate Studies will document the incident, maintain a file of its records, and may initiate formal proceedings for disciplinary action against the student under the “Code of Student Rights, Responsibilities and Disciplinary Procedures.”

The Office of Student Life or the College of Graduate Studies will maintain a confidential file on students for one (1) year after they graduate or have not been enrolled at the university for a period of three (3) years. If students are suspended, the records are maintained for one (1) year after graduation or five (5) years after last enrollment. If students are dismissed records are maintained indefinitely.

2. Appeal of an Informal Proceeding

A student sanctioned for violation of the Policy on Academic Integrity may appeal the instructor’s decision that a violation of the Policy has occurred, and/or the sanction.

The appeal must be submitted in writing to the instructor and to the dean 3 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.

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 the fact, conclusion as to whether there has been a violation of the Policy on Academic Integrity, and/or a decision that the instructor is to hold a new conference with the student.

The dean's decision will be final.

If it is necessary pending the resolution of an appeal, the student will be assigned a deferred grade.

A copy of the appeal and the dean's resolution of the appeal will be part of the file on the violation maintained in the Office of Student Life or the College of Graduate Studies.

Failure to appeal a sanction after an informal conference with an instructor constitutes acknowledgment 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).

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 criminal prosecution.
Financial Information

All fees are established by the Board of Trustees and may be changed periodically.

**Tuition Rates for On-Campus Credit Courses**

<table>
<thead>
<tr>
<th>Level of Courses</th>
<th>Michigan Residents</th>
<th>Non-Michigan Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate (New Students)</td>
<td>$324.00</td>
<td>$753.00</td>
</tr>
<tr>
<td>Admitted to College of Graduate Studies</td>
<td>$413.00</td>
<td>$766.00</td>
</tr>
<tr>
<td>Courses Level 600-999</td>
<td>$413.00</td>
<td>$766.00</td>
</tr>
<tr>
<td>Doctoral</td>
<td>$470.00</td>
<td>$850.00</td>
</tr>
</tbody>
</table>

**Special Course Fees:** Some courses may have a Special Course Fee. Set fees will appear in the Special Fees column in the Class Schedule opposite the course listing. Variable fees are identified in the department and/or course notes. For more specific information, refer to [www.Budget.cmich.edu](http://www.Budget.cmich.edu).

**NOTE:** Students who audit courses are assessed tuition at the regular rates. Students who enroll for credit by examination are assessed $40/credit hour.

**Late Registration Fee**

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

**Non-Payment of Tuition Charge**

If a tuition payment is not received by the due date, you will receive a $100 Non-Payment of Tuition charge.

**Graduate Studies Fees**

*Application for Admission Fee* (non-refundable)

- U.S. Citizens or Resident Aliens: $35.00
- International Applicants: $45.00

*Change of Program Fee* $35.00

*Application for Graduation Fee* (per degree) $50.00

*Reapplication for Graduation Fee* $25.00

**Paying Tuition and Fees**

CMU offers two options for paying tuition. Tuition and fees for registration may 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 later refunds or billings. Any past due financial obligations must be paid prior to the time of registration. Registration will not be accepted until such obligations are met.

As an alternative, students may budget and pay all or part of the academic year (fall and spring semester) fees in eight to ten equal monthly installments without interest charges through Tuition Pay, a third party. The plan may be used to cover tuition and/or on-campus housing charges and can supplement all other forms of financial aid such as grants, loans and scholarships. Enrollment in this TuitionPay plan and payments begin in the spring preceding the covered academic year. For more information about this option, contact the Receivable Accounting Office, UC 119, Mount Pleasant, MI 48859.

**Billing Procedure and Delinquent Account Policy**

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

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

- **Past Due Amount**
  - $0.01-$9.99: No late fee
  - $10.00-$59.00: $1.00 per month
  - $60.00 and above: $30 per month

Past due accounts may be referred to a collection agency, and, if referred, the fees assessed to the University by the collection agency will be added to the student’s account. Once the account is referred to a collection agency, the past due account will be reported to the Credit Bureau. Students are encouraged to visit the Student Service Court on the lower level of the Bovee University Center to receive advice regarding financial options which could possibly prevent collection referral.

**Returned Check Fee**

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

**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
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. 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. documents one year of continual physical presence in the state as one of the criteria for determining eligibility for resident status, as described in II.C., below, and,
   c. Reliance upon only Michigan sources for financial support.
   d. Domicile in Michigan of family, guardian, or other relatives or persons legally responsible for the student.

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

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

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

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

1. A person appointed to a regular full-time position at the University (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be classified as a Michigan resident for tuition purposes.
2. A non-resident transferred to Michigan for employment purposes (and that individual’s spouse or same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office, and dependent children) may be classified as a Michigan resident for tuition purposes.
3. A student who has no previous history of living in the state but enrolls at CMU while on military assignment in Michigan, or who enrolls immediately upon discharge from military service, may be classified as a Michigan resident for tuition purposes.
4. A student who is married (or a same-sex partner as defined by CMU Human Resources, Faculty Personnel Services, or other authorized office) to a person who is classified as a Michigan resident will be classified as a Michigan resident for tuition purposes.
5. A student who has a parent or grandparent who graduated from CMU will be classified as a Michigan resident for tuition purposes.
6. A student who graduated from CMU will be classified as a Michigan resident for tuition purposes.
7. Additional Circumstances and Activities:
   a. Continuous presence in Michigan during periods when not enrolled as a student.
   b. Reliance upon only Michigan sources for financial support.
   c. Domicile in Michigan of family, guardian, or other relatives or persons legally responsible for the student.
   d. Former domicile in the State of Michigan and maintenance of significant connections therein while absent.
   e. Ownership of a home in Michigan if purchased without support from non-Michigan sources.
   f. Admission to and full-time practice of a licensed profession in Michigan.
   g. Long-term military commitments in Michigan.
   h. Permanent full-time employment in Michigan, provided that the applicant’s employment is the primary purpose for the applicant’s presence in Michigan.
   i. Spouse’s full-time, permanent employment in the state, provided that the spouse’s employment is the primary purpose for the student’s presence in Michigan.

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

E. Circumstances and Activities which Generally Lend No Support to a Claim of Michigan Resident Status:
The following circumstances and activities are temporary and indeterminate and, in and of themselves, do not demonstrate a permanent domicile in Michigan:

1. Voting or registration for voting in Michigan.
2. Possession of a Michigan driver’s license.
3. Employment that is temporary or short-term.
4. Employment in a position normally held by a student.
5. Ownership of a Michigan home if purchased with support from non-Michigan sources.
6. The lease of living quarters.

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

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

B. Graduate Students at Time of Admission:
   1. The Dean of the College of Graduate Studies, or designee, shall determine the initial resident status of new graduate students prior to the first registration.
   2. If an individual disagrees with the decision of the College of Graduate Studies, that individual must file a properly completed Application for Resident Status with the Registrar’s Office. The Application for Resident Status must be received before the seventh day after the first day of classes during the semester or term in which the individual is first enrolled at CMU. The Registrar’s Office shall consider the Application for Resident Status and provide the individual with a written decision. If the individual disagrees with that decision, the individual may file an appeal following the procedures set forth in IV, below.

C. All Students Requesting a Change in Resident Status:
The procedure for determining whether a non-resident student has acquired Michigan resident status is as follows: An individual must file a properly completed Application for Resident Status with the Registrar, or designee. The Application for Resident Status must be received before the seventh day after the first day of classes during the semester or term in which the student is seeking the resident status. The Registrar, or designee, shall consider the Application for Resident Status and provide the individual with a written decision. If the individual disagrees with that decision, the individual may file an appeal following the procedures set forth in IV, below.

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

Michigan residence is claimed by means of self-certification by the student, giving names of employer, date of employment, and location.

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. Bicycles are also registered free at the CMU Police Department.

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.

Vehicle Registration Fee

<table>
<thead>
<tr>
<th>Type of Registration</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Commuter</td>
<td>$175 / year</td>
</tr>
<tr>
<td>Student Resident, Single Lot</td>
<td>$150 / year</td>
</tr>
</tbody>
</table>

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

Vehicle Registration Refund

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.

University Housing and Dining Services

Graduate students may live in housing of their own choice, but CMU does offer a variety of housing and board accommodations to both single students and students with families.

On-campus university-owned apartment housing is available for graduate students: single or married, with or without children. Housing office staff will identify apartment-mates for those who wish to share an apartment but do not have a particular person in mind. In order to create a community of graduate students, the university’s housing office, when possible, places graduate students residing in university-owned apartments in close proximity to another. The rates for the 2009-10 academic year may be found at http://www.reslife.cmich.edu or by contacting Residence Life at 989-774-3111.

One, two, and three-bedroom university family apartments are assigned according to date of application for apartment housing. Most units are furnished.

Graduate students may also live in residence halls. Residence halls provide several lifestyle options, quiet study areas, and offer such extras as weight rooms and computer labs.

Room/board rates for residence halls vary depending on the meal plan chosen. See the website at http://www.campusdish.com/en-US/CSMW/CMU/ for more information. All students residing on- or off-campus are eligible for residence hall board options. Several areas in the Bovee University Center serve meals on a daily basis.

Application for all university housing should be made well in advance. Listings of off-campus accommodations are available in the Office of Residence Life. Questions concerning housing and board arrangements should be addressed to the Office of Residence Life, Bovee University Center, Room 201, Central Michigan University, Mount Pleasant, MI, 48859-0001; (989) 774-3111; fax: (989) 774-6410; e-mail: reslife@cmich.edu or see http://www.reslife.cmich.edu/

Family Educational Rights and Privacy Act

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

1. The right to inspect and review the student's educational records within 45 days of the date the University receives a request for access.

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

2. The right to request the amendment of the student's educational records that the student believes is 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 specifying why it is inaccurate or misleading.

(continued)
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 procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosures without consent.

One exception which permits disclosure without consent is disclosure to University officials with legitimate educational interests and/or needs to review an educational record in order to fulfill his or her professional responsibility. A University official for the purpose of this policy is defined as follows:

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

Upon request, the University discloses educational records without a student's consent to officials of another school in which a student seeks to enroll.

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

a. name, campus address, home address, telephone listing, and campus e-mail address
b. state of residence
c. age, and 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 G.P.A. range for the selection

4. A student has the right to refuse the designation of all categories of personally identifiable information listed above (a. through k.) as Directory Information. If a student exercises this right, it will mean that no Directory Information pertaining to the student will be published or otherwise released to third parties without consent, a court order or a subpoena.

Any student wishing to exercise this right must inform the Registrar's Office in writing by September 1st regarding the withholding of all categories of personally identifiable information with respect to that student. This will ensure that their name will not appear in the printed Central Michigan University Directory. Requests after this date will be processed and although it will not impact the printed directory it will remove the student's information from the on-line directory. Once a student has requested the withholding of information, "Directory Information" will be withheld until they submit another request in writing to remove it.

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
NOTE: While the information regarding financial aid is correct at the time of this Bulletin's publication, financial aid requirements and opportunities change frequently. For current information, contact the office indicated for each of the programs listed below.

Central Michigan University, in conjunction with the federal and state governments and private and civic organizations, offers a variety of fellowships, assistantships, grants, loans, and employment opportunities to assist graduate students in financing their education.

Financial Aid Categories

Financial aid for graduate students falls under two general categories: need based and non-need based. Each kind of aid has certain advantages and limitations, and each is subject to varying standards of eligibility, application procedures, and regulations. Need-based financial aid includes federal loans and work study employment. Non-need based financial aid includes graduate fellowships and scholarships, graduate assistantships, internships, non-work study campus employment, loans, and veterans’ benefits.

Financial Aid Information

Students interested in any type of financial aid offered at CMU should contact the appropriate office for current information. Questions about graduate fellowships and scholarships should be directed to the College of Graduate Studies. Questions concerning graduate assistantships should be directed to the academic department offering the assistantship. Questions regarding financial aid applications, loans, and university student employment should be directed to the CMU Office of Scholarships and Financial Aid, Student Service Court; Mount Pleasant, MI 48859. Telephone (989) 774-3674, FAX: (989) 774-3634, e-mail: CMUOSFA@CMICH.EDU.

Financial Aid Application

To apply for federal and state financial assistance programs at Central Michigan University, students must complete the Free Application for Federal Student Aid (FAFSA). The application is available online at www.fafsa.ed.gov.

CMU financial aid awards are made for a maximum of one academic year. Re-application must be made each year.

Verification

Under the Federal Audit Quality Assurance program, CMU evaluates the accuracy of information submitted by financial aid applicants. The OSFA is required to collect documents to verify 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 agency for their further disposition.

Out-of-State Tuition Awards

CMU offers two out-of-state tuition award programs. The Graduate Out-of-State Tuition Merit Award program grants resident tuition to out-of-state students who: 1) achieve a 560 GRE Verbal score and a 660 GRE quantitative score or a 600 GMAT score or a 55 MAT score; and 2) have a cumulative undergraduate grade point average of at least 3.0 on a 4.0 scale; and 3) have a computer based TOEFL score of at least 250 (CBT) if a non-native speaker of English. The Graduate Out-of-State Neighbor Islands Tuition Award program grants resident tuition to students from Indiana, Ohio, Illinois, and Wisconsin who have at least a 3.3 overall undergraduate grade point average from a U.S. institution and to students from Ontario, Canada, who have at least a 3.0 overall undergraduate grade point average from a Canadian institution. Both programs require students be admitted into CMU graduate programs in order to receive the award.

Scholarship Option for Early Graduates

CMU merit scholarship students whose undergraduate degrees are awarded in advance of the maximum allowable semesters of eligibility of their scholarships, and who are admitted to a graduate degree program and maintain continuous full-time enrollment in that program, may upon written request and with the approval of the Office of Scholarships and Financial Aid, utilize the remaining maximum value of their scholarship.

Fellowships and Scholarships

A variety of fellowships and scholarships are awarded to CMU graduate students. These forms of financial aid are particularly valuable to students, because there are generally no concurrent service obligations associated with these awards. Because new fellowship and scholarship opportunities may become available, graduate students are advised to check with their department office and with the College of Graduate Studies.

College of Graduate Studies Fellowships

College of Graduate Studies Fellowships are awarded on a competitive basis to students with outstanding academic records who are interested in completing theses or other major works of scholarship. Students who will be enrolled full-time in a master’s or specialist’s degree program at Central Michigan University may apply for the award, which provides a stipend; a tuition scholarship for up to 24 credit hours; and special library privileges which allow them to check books out for six months at a time. This fellowship is intended for graduate students who support the advancement of diversity in higher education. For the 2009-10 academic year, College of Graduate Studies Fellowships pays a stipend of $10,300. The 24-hour tuition scholarship may be spread out across the academic year for courses on the student’s graduate degree program or courses approved by the graduate advisor, beginning with fall semester and continuing through the following summer sessions. College of Graduate Studies Fellowships pay graduate tuition at the on-campus tuition rate but will not pay for undergraduate coursework unless it is approved for graduate credit. All master’s and specialist’s level fellows are classified as Michigan residents only during the academic year of the award (including the subsequent summer). Central Michigan University generally awards 13 fellowships. Each recipient of a fellowship may act as a research fellow under the tutelage of a designated faculty member.
Eligibility. Students who will be enrolled full-time in a master’s or specialist’s degree program are eligible to apply. Students in a doctoral program are not eligible for College of Graduate Studies Fellowships; they should apply for the Doctoral Research Fellowships.

Recipients of College of Graduate Studies Fellowships must register for and complete at least nine graduate semester credit hours with a GPA of 3.0 or better each semester, in order to remain eligible for the award.

Application Procedure. Applicants must submit the following:

1. a completed College of Graduate Studies Fellowship application;
2. official GRE general test or GMAT scores;
3. a statement of qualifications for the fellowship and goals for graduate study; and
4. three letters of recommendation from academic and professional people; at least two must be from professors under whom the applicant studied in his or her proposed field of graduate study, either as an undergraduate or graduate student.

Letters of recommendation will be used by both the appropriate department and the Diversity Fellowship Committee, so students do not need to request duplicate letters. Prospective students must also apply to the College of Graduate Studies by submitting an Application for Admission to the College of Graduate Studies, including two transcripts of all previous college coursework, except that completed at CMU.

To ensure that test scores arrive on time, the GMAT must be taken no later than October and the GRE must be taken no later than December. Students electing computerized versions of the GRE may have more flexibility on test-taking dates, but it is essential that scores arrive by February 6. GRE and GMAT information bulletins are available on most college campuses. At CMU, the bulletins are available in the College of Graduate Studies. The bulletins are also available by writing to Educational Testing Service, P.O. Box 6004, Princeton, NJ 08541.

Application Deadline. Applications and all supporting materials must be submitted by February 6. Applicants will be notified of the committee’s decision by late March.

Application Forms and Information. Application materials are available on the college website under Applications and Forms: www.grad.cmich.edu.

Doctoral Research Fellowships

Doctoral Research Fellowships are awarded on a competitive basis to students who will be enrolled full-time in one of the doctoral programs. Doctoral Research Fellowships include a stipend and a 24-credit tuition scholarship. Recipients of Doctoral Research Fellowships also get special library privileges which allow them to check books out for six months at a time. For the 2009-10 academic year, Doctoral Research Fellowships provide a stipend of $12,600 and a 24-credit tuition scholarship. Doctoral Research Fellowships will not pay for undergraduate coursework unless it is approved for graduate credit and pays for graduate tuition at the on-campus tuition rate. All doctoral level fellowships are classified as Michigan residents for tuition purposes. This classification remains in effect for the duration of their program. Each recipient of a fellowship is expected to act as a research fellow under the tutelage of a designated faculty member.

Eligibility. Recipients of Doctoral Research Fellowships must register for and complete at least nine graduate semester hours during each of the two semesters of the award, and maintain a GPA of 3.0 or higher. Doctoral Research Fellowships are awarded for one year. (Check with the department making the award to determine if fellowships are renewable.)

Application Procedure for Mathematics and Psychology

Applicants must submit the following information directly to the department: (1) completed Doctoral Research Fellowship application; (2) official GRE scores from the general test; (3) a statement of qualifications for the fellowship and goals for graduate study; and (4) three letters of recommendation from academic and professional people. At the student’s request, letters of recommendation used for admission purposes may also be used for fellowship application purposes. Prospective students must apply to the College of Graduate Studies by submitting an Application for Admission to the College of Graduate Studies, including two transcripts of all previous college coursework, except that completed at CMU.

To ensure that GRE scores arrive on time, the test must be taken no later than December. A GRE information bulletin is available on most college campuses. At CMU, the bulletin is available in the College of Graduate Studies and the Center for Learning Assessment Services in the lower level of Robinson Food Commons. The bulletin is also available by writing to Educational Testing Service, P.O. Box 6004, Princeton, NJ 08541.

Application Procedure for History

Applicants must submit the following information directly to the History Department (Powers 106): 1) completed Joint M.A./Ph.D. Fellowship Application; 2) official GRE scores from the general test; 3) a statement of qualifications for the fellowship and goals for graduate study; 4) an official transcript of undergraduate and/or graduate work completed at a recognized university recording at least 20 credit hours in history, or related fields, with a grade point average of 2.7 or higher; and 5) three letters of recommendation, with at least two reference letters from persons within the proposed field of graduate study. Students who have completed a traditional MA degree or will complete an MA prior to beginning the Joint Program must also submit evidence of scholarship (request specific information from the department). At the student’s request, letters of recommendation used for admission purposes may also be used for fellowship application purposes. Prospective students must also apply to the College of Graduate Studies by submitting an Application for Admission and all supporting materials required by that application.

To ensure that GRE scores arrive on time, the test must be taken no later than December. A GRE information bulletin is available on most college campuses. At CMU, the bulletin is available in the College of Graduate Studies and the Center for Learning Assessment Services in the lower level of the Robinson Food Commons. The bulletin is also available by writing to Educational Testing Service, P.O. Box 6004, Princeton, NJ 08541.

Application Deadline. History, Mathematics, Clinical Psychology, I/O Psychology, School Psychology and Applied/Experimental Psychology students must submit fellowship applications and all supporting materials by Feb. 6. Awards are announced after admission decisions are made. (NOTE: Applications for admission to the Clinical and School Psychology programs are due Jan. 15. Applied /Experimental Psychology Feb. 1, and I/O Psychology Jan. 1, all earlier than fellowship applications.)

Application Forms and Information. For application materials and information, contact the Department of History, 106 Powers, (989) 774-3374; the Department of Psychology, 101 Sloan, (989) 774-3001; or the Department of Mathematics, 214 Pearce, (989) 774-3596.
King/Chavez/Parks (KCP) Future Faculty Program

Note: This program may, or may not, continue to be funded by the State of Michigan. Contact the College of Graduate Studies for information.

Established in 1991 by Jackie M. Evans, members of the M. Ruth Evans family and friends in memory of Mary Lou, a dedicated military wife and mother, and friends 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.

Eligibility. To be eligible for a KCP fellowship at either the master's or doctoral level, the student must meet all entrance requirements for the College of Graduate Studies and the appropriate department. The student must be a U.S. citizen, an under-represented minority in the candidate's chosen field, and not in current default status on guaranteed student loan.

Application Procedure. Applicants must submit the following: (1) a completed KCP application; (2) transcripts for all undergraduate and graduate coursework; (3) three letters of recommendation from academic and professional people, at least two of which must be from faculty within the applicant's proposed field of study; and (4) a personal statement describing current educational status, qualifications for the program and goals in undertaking graduate study.

Application Deadline. Applications and all supporting materials must be submitted by February 6. Awards are announced in late March.

Application Forms and Information. Application materials are available on the college website under Applications and Forms: www.grad.cmich.edu.

AAUW - M. Ruth Evans Award

Established in 1991 by Jackie M. Evans, members of the M. Ruth Evans family and members of the Mount 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.

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

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

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 Mount 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.

CDO-SLP Alumni Scholarship

Established in 1998 through alumni support, for a second-year graduate student in the Speech/Language Pathology Program in the Department of Communication Disorders.

CEL Endowed Scholarship

Established in 2001 by alumni and friends of Off Campus Programs, proceeds from the endowment will be used to support a scholarship for CMU's Off-Campus Programs students with a 3.0 minimum GPA.

Computer Science Endowment

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

Paul David Cratin Physical Chemistry Graduate Student Endowed Award

Established in 2000 to honor Paul David Cratin, former professor. Proceeds from the endowment will be used to establish an award for a graduate student enrolled in the masters degree program in the area of physical chemistry.

Dow Corning MBA Endowed Scholarship

Established in 2006, the scholarship is in memory of Larry Reed, ’69. Income from the endowment will support a renewable scholarship for a graduate student enrolled in the College of Business Administration’s MBA program. The recipient will have regular admission status in the program and be performing at a high level in their academic coursework. Selection will be based upon GPA in the MBA program, performance in specific MBA courses, faculty recommendations, demonstrated leadership in MBA related activities and the potential for success following completion of the degree. A list of finalists for the scholarship is to be sent to a
selection committee, who may also recommend recipients. The selection committee shall make the final determination of the recipients. Preference may be given to applicants who are available to intern as students with Dow Corning and willing to consider full time employment with Dow Corning upon graduation.

J. Dean and Betty L. Eckersley Audiology Scholarship
Established in 1996 as a renewable scholarship for a graduate status audiology student within the Department of Communication Disorders who earned a minimum GPA of 3.5 as 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 Department of Communication Disorders.

Richard D. Featheringham Endowed Scholarship
Established in 2005 by Dr. Richard ’81, ’84 and Audrey Featheringham. Income from the endowment will support a renewable scholarship for an undergraduate or graduate student with a major or minor in organ and a minimum GPA of 3.0. The student must audition with the School of Music.

Bud Fisher and Fisher Companies Study Abroad Scholarship
Established in 2005 by Bud Fisher and Fisher Companies. Income from the endowment will support a renewable scholarship for a student(s) who wishes to study abroad. The recipient(s) will be a sophomore or higher or a graduate student who has completed at least one semester of study, with a minimum GPA for an undergraduate of 2.7 and 3.2 for a graduate. Preference will be given to students studying in non-Western and non-English speaking countries. The recipient must be a U.S. citizen or permanent resident, demonstrate financial need, be enrolled full time at the time of the award and during the term of study abroad (one or two semesters), and fulfill the in-kind service requirement upon return.

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.

Dr. Barbara Leiting-O'Connell Family Endowed Scholarship
Established in 2007 by Dr. John F. O’Connell ’83 in memory of Dr. Barbara Leiting-O’Connell. Income from the endowment will support a renewable scholarship for a junior, senior or graduate student with a 3.5 GPA or higher or an undergraduate with a 3.25 GPA or higher. First preference will be given to a physically challenged graduate student and then a physically challenged undergraduate student registered with the Office of Student Disability Services. For further information see the Office of Scholarships and Financial Aid.

Margaret E. Sanford Marquardt Memorial Endowed Scholarship
Established in 2007 by Richard G. Marquardt ’59 in memory of Margaret E. Sanford Marquardt ’55, ’60. Income from the endowment will support a renewable scholarship in the Department of Communication Disorders for either a graduate student with a 3.5 GPA or higher or an undergraduate with a 3.25 GPA or higher. First preference will be given to a physically challenged graduate student and then a physically challenged undergraduate student registered with the Office of Student Disability Services. For further information see the Office of Scholarships and Financial Aid.

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.

Edward E. McKenna Academic Excellence Award
Established in 1998 in memory of this dedicated teacher, scholar, and unionist by the Department of Sociology, Anthropology, and Social Work. Endowment earning will provide cash awards for winning authors of an annual undergraduate and graduate paper competition.

Bernard N. Meltzer Scholarship
Established by friends in honor of Bernard N. Meltzer, former faculty member and chairperson of the Department of Sociology, Anthropology, and Social Work, for a graduate student in sociology.

Anne Miller-Quimper Memorial Award
The Anne Miller-Quimper Memorial Award was established in 1991 though gifts from family and friends in memory of Anne Miller-Quimper (1940-1980). A graduate student in the School of Psychology program, Anne was killed by a car while she was jogging. Endowment earnings will provide annual stipends to graduate students to support thesis or dissertation research.

Edward H. Pothoff, Jr. Scholarship
Established in 1983 by family and friends for a public administration graduate student demonstrating a career interest in local government.

Nicholas P. Redfield Scholarship
Established in 1998 by colleagues in memory of Dr. Redfield for a third-year Au.D. doctoral student who demonstrates a "client-centered" approach in clinical performance. Volunteer work and efforts to better the audiology program at CMU will also be considered in selecting a candidate for this award.

Margaret E. Sanford Marquardt Memorial Endowed Scholarship
Established in 2007 by Richard G. Marquardt ’59 in memory of Margaret E. Sanford Marquardt ’55, ’60. Income from the endowment will support a renewable scholarship in the Department of Communication Disorders for either a graduate student with a 3.5 GPA or higher or an undergraduate with a 3.25 GPA or higher. First preference will be given to a physically challenged graduate student and then a physically challenged undergraduate student registered with the Office of Student Disability Services. For further information see the Office of Scholarships and Financial Aid.

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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.

John E. Warriner Scholarships
John E. Warriner Scholarships are awarded on a competitive basis to outstanding juniors, seniors, and graduate students enrolled in a humanities or social science program within the College of Humanities and Social & Behavioral Sciences.

Eligibility. Graduate student applicants for the Warriner Scholarships must be accepted into a graduate program in one of the following departments: Economics, English, History, Political Science, Speech, or Sociology. They must have a GPA of at least 3.25 and demonstrate financial need.

Application Procedure. Applicants must submit the following: (1) a completed application form; (2) transcripts of all undergraduate and graduate study; (3) two letters of recommendation from faculty who have worked with the applicant; and (4) a letter describing the applicant’s educational and professional goals and explaining how the scholarship would benefit the recipient. All applicants must have a FAFSA on file at CMU.
Graduate Assistant Benefits

Graduate assistant benefits include a stipend, tuition scholarship, classification as a Michigan resident, travel accident insurance, and special library privileges.

For the 2009-10 academic year, the funding amount for full-time master's and some post master's graduate assistants ranges from $9,800 - $14,400. The funding amount for full-time graduate assistants in a specialists, doctoral (with 30 hours beyond baccalaureate) program ranges from $10,850 - $19,000. Graduate assistants working less than full-time are paid on a prorated basis.

A full-time graduate assistant appointed for the academic year receives a tuition scholarship for 20 credit hours. Graduate assistants working less than full time receive prorated tuition scholarships. The tuition scholarship covers courses taken during the academic year or the following summer. Tuition is paid at the on-campus rate.

Graduate assistants are classified as Michigan residents for the purpose of determining tuition rates at CMU. This classification remains in effect for the duration of their stay at CMU if working on a doctoral program. For specialist's and master's degrees, and graduate certificates, this classification as a Michigan resident is in effect only during the academic year of the award (including the subsequent summer).

Graduate assistants are covered by travel accident insurance which provides $25,000 to a beneficiary in case of accidental death while traveling on university business.

Graduate assistants are given special library privileges, allowing them to check books out for a six month period.

Eligibility

To receive an assistantship, a student must be admitted to the College of Graduate Studies under regular, conditional, or non-degree admission. Students who have concurrent admission status may be appointed as graduate assistants only if they have special permission from the Dean of the College of Graduate Studies. Other hiring criteria are determined by the department or office responsible for the assistantship.

Graduate assistant appointments require that a student maintain a grade point average of 3.0 in graduate work. Graduate assistants with appointments for the fall and/or spring semesters must register for and maintain a minimum of six semester hours of graduate credit at CMU during each semester of the assistantship. Requests for exceptions will be evaluated on a case-by-case basis by the Dean of the College of Graduate Studies. Graduate research assistants with a summer appointment must register for and maintain a minimum of one semester hour of graduate credit during the summer at CMU. Graduate teaching assistants appointed for the summer will be required to take 1-6 credits for the summer.

U.S. Department of Homeland Security regulations affect international students’ eligibility for assistantships. The College of Graduate Studies will confirm whether an individual international student is eligible for an assistantship.

Application and Selection Procedures

Each department establishes its own application and selection procedures. Therefore, prospective graduate assistants must contact individual departments to apply. While it is always best to apply early, different departments have different application deadlines and due to extenuating circumstances, graduate assistants are sometimes selected a few days before classes start.

Responsibilities

The responsibilities of a graduate assistant are determined by the hiring department. The responsibilities must be commensurate with the time constraints of the assistantship appointment.
General Requirements for Loans and Work Study

Academic Eligibility

Graduate students must register for at least five credit hours per semester at CMU to be eligible for federal student aid programs. Credit hours are determined after the close of the Drop/Add period.

Policy and Award Revision

CMU reserves the right to revise a student's financial aid award if government regulations, university policy or sources of funding change prior to or during an academic year; if overpayment occurs; or if acceptance of the award is made after the acceptance date.

Debt and Default

Federal aid recipients may not owe a refund from any grant or loan or be in default on any federal loan to be eligible for assistance.

Financial Aid Assessment

The federal need 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.

Satisfactory Progress

Federal regulations require that Central Michigan University monitor the Satisfactory Progress of all students. There are three distinct criteria which must be monitored and met to maintain eligibility for federal student aid, as well as most state and institutional student aid programs. This rule applies to all students applying for aid regardless if they have received financial aid in previous semesters. These financial aid requirements are separate from students’ academic requirements. Attempted hours are based on what the student is registered for at the conclusion of the Registrar’s posted Deadline for Dropping a Class with a Full Cancellation of Tuition. Progress is measured at the end of the spring semester (May) to determine a student’s financial aid eligibility for the following academic year. If a student is not making satisfactory progress at the close of the spring semester and subsequently earns additional CMU hours during the summer of that same academic year, the additional earned hours may be considered in a reevaluation for aid eligibility. The request for a reevaluation must be initiated by the student and it must be submitted in writing.

Students in graduate programs may not receive financial aid if they have exceeded the published time limits as outlined in the CMU Graduate Bulletin for masters, doctoral, or professional programs (see page 27, Duration of Admission Status).

All students (graduate, and graduate-professional) must complete 75 percent of the courses they attempt in an academic year. CMU’s academic year begins with the fall semester and concludes with the summer semester.

In addition to these criteria, students must maintain GPA requirements as set by the Registrar and the department or college of their major. Graduate student academic requirements are found in the Graduate Studies Bulletin (see page 44, Academic and Retention Standards).

Consequences of unsatisfactory progress

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

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

Appeal process

Students who have faced extraordinary circumstances may appeal the denial of financial aid. Documentation of your circumstances is required, and students are cautioned that appeals are not routinely approved. All appeals must be typed and must include 3rd party supporting documentation on professional letterhead. For example, if your mitigating circumstance is that you were severely ill, you must submit a letter from your doctor that is written on the doctor’s professional letterhead supporting that you were severely ill during the time period given. If you wish to appeal, please submit your written letter of appeal along with supporting documentation to the Office of Scholarships and Financial Aid. In most cases a decision will be made within 15 business days of receiving an appeal letter and the appropriate documentation. Students are notified of appeal decisions in writing or through their CMU email account.

Continuing at CMU after aid is denied

Students denied financial aid generally may continue attending Central Michigan University using private aid sources such as alternative student loans (see page 45), or by funding their education themselves. Please note that on the alternative loan list, some loans listed are NOT available to students on Financial Aid Suspension.

(continued)
Student Loans

Student loan requirements and regulations can be quite complex; all students are encouraged to work closely with the CMU Office of Scholarships and Financial Aid. The financial aid office has publications that provide detailed information on loan programs, and financial aid advisors are available to answer questions and offer information and advice concerning student loans. Financial aid advisors are available on a walk-in basis in the Student Service Court in the Bovee UC or by appointment in Warriner 202.

The total amount of all loans borrowed may not exceed the student’s estimated cost of attendance minus the financial aid awarded for the period of enrollment.

William D. Ford Federal Direct Loan Program (Subsidized Loans)

Subsidized loans are made to students by the federal government and applied directly to the student’s 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.

The aggregate maximum for undergraduate study is $31,000 for a dependent student and $57,500 for an independent student. Graduate students making satisfactory progress who carry at least five (5) semester hours may borrow up to $8,500 per year in a subsidized Federal Direct Loan and up to $12,500 in an unsubsidized Federal Direct Loan. The aggregate maximum for undergraduate and graduate study combined is $138,500. No more than $65,500 of this aggregate amount may be in the form of subsidized loans. Application is usually made for one semester or an academic year (9 months), with summer school requiring a separate award.

The interest rate for a Graduate Federal Direct subsidized loan is fixed at 6.8%. Student borrowers are assessed a 1.5% origination fee prior to loan disbursement. Borrowers will receive a 1.0% rebate on their Federal Direct Loans. Although the rebate is added to each loan disbursement, it does not become permanent until the borrower makes the first 12 monthly loan payments on time. If the borrower does not meet this requirement, the rebate must be repaid.

Six months after ceasing to be at least a half-time student, the borrower must begin repayment. Several repayment options are available; contact the federal servicer. Payment of principal may be deferred under certain conditions. Students should refer to their promissory notes for details.

Unsubsidized Student Loans

Provisions are the same as the Federal Direct Subsidized Loans, except that the loan is not based on need. The program is open to students who do not qualify for the Federal Direct Subsidized Loans or who do not qualify for the full amount. The student is responsible for the interest that accrues while he/she is in school. Graduate students may borrow up to $12,000 per academic year in an unsubsidized loan. The interest rate is the same as the Direct Subsidized Loan.

Loan Counseling

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

Exit Interviews: Students who receive a Federal Direct Loan are required by federal regulations to complete a loan interview before graduating or withdrawing from the university. Important information regarding deferment and payment schedules will be discussed. Students are contacted electronically to complete on-line exit counseling. Exit counseling materials will be mailed to students who fail to complete on-line exit counseling within 30 days of notification. During exit counseling CMU is required to obtain the following information from the borrower:

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

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

Federal Graduate PLUS Loan

This program is for students in graduate level programs only. Students must file the FAFSA, be enrolled at least half-time, and receive all subsidized and unsubsidized loans, eligibility before a PLUS loan can be disbursed. This loan is a non-need loan for students with good credit histories. Applicants may borrow up to the cost of attendance minus the financial assistance. Students will receive an automatic deferment while enrolled at least half-time. The Graduate PLUS is not a subsidized loan; consequently interest will accrue. The interest rate is 7.9%. Students may complete a Graduate PLUS Loan Application available online at: http://financialaid.cmich.edu.

Student Employment Opportunities

Internships and Co-op Opportunities

CMU encourages internship and co-op experiences for graduate students. By definition, an internship is a requirement of a student's program of study, while a co-op experience enhances but is not required for the program. Both require that the student perform services related to the student’s area of study. The service is generally provided to an agency or business outside of CMU’s control, and pay levels generally reflect the graduate student’s advanced standing. For information on internship or co-op opportunities, students should contact their academic department.

CMU Student Employment Programs

During the academic year, there is no limit on the number of hours per week that a student may work (international students may work only 20 per week during the academic year). However, students are here primarily to complete their degree program and often work to help cover the associated expenses. The need for some students to be employed for a greater number of hours should not compromise their progress toward the fulfillment of their degree requirements. During periods of non-enrollment (summer, spring break, semester break), students may work up to forty hours a week.

Work Study. CMU participates in two work study programs available to graduate students: Federal College Work Study (FWS) and Michigan Work Study Program for Graduates (MWS). MWS is available only to Michigan residents. Both programs require that the student be enrolled in at least 5 credits in a graduate program of study.

Eligibility is based on financial need. Therefore, to qualify for work study, students must demonstrate financial need by completing the FAFSA form and if requested, by submitting verification materials (e.g., income tax returns) to the Office of Scholarships.
and Financial Aid. Contact the financial aid office for more specific information.

Eligibility for work study does not guarantee job placement. Pay rates are commensurate with job duties and skills. Any student participating in the FWS or MWS program is told the maximum amount he/she can earn during the academic year, from this program. After students have earned the amount for which they are eligible for a given year, they will be allowed to continue their job placement only if the hiring department has another source of funds for paying them. (See GSA below.)

General Student Assistance Employment Opportunities.
General Student Assistance (OSFA) provides an opportunity for campus offices to hire undergraduate and graduate students regardless of the students’ financial need. The demand for these positions exceeds the supply, so pay levels may not be attractive to graduate students.

There is no limit to the amount of GSA money a student can earn in a year. Graduate students should check with their own departments and with the Student Employment Office in the Bovee University Center regarding GSA opportunities.

Off-Campus Employment. Students are free to seek employment off campus with no interference from the university. (International students should contact the Office of International Education to determine eligibility for off-campus employment.) To assist students in finding jobs, CMU operates the Job Bank, located in the Student Employment Office in the Bovee University Center. Students who are not employed on campus through the work study programs (FWS or MWS) and who are not graduate assistants may use the services of the Job Bank.

Veterans’ Benefits

Registration for Benefits

Students who are eligible for Chapter 30, 31, 33, 35, 1606 or 1607 benefits are required to register for educational benefits each semester with the Central Michigan University Office of Scholarships and Financial Aid (OSFA), as well as register for classes each semester, in order to receive benefits. Registration should take place approximately 10 to 12 weeks before the beginning of each semester. This time frame will insure adequate time for the United States Department of Veterans Affairs (USDVA) to process benefits and prevent an interruption of benefits. VA students in Off-Campus Programs must apply for VA educational benefits at the center in the area where the courses will be offered.

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

Program Plan. All graduate students must submit a CMU program plan when they apply for veterans benefits. Failure to comply with this requirement will prevent certification of eligibility for future semesters.

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 a Master’s Degree - 36 credits

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

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

Repeat Grades. A student may be certified for a repeat course only if the grade received was not accepted by the university as a passing grade or a better grade is required to earn your degree.
NOTE: Graduate students are individually responsible for complying with the procedures, requirements, regulations, and deadlines printed in this Bulletin and the specific requirements of their department and program.

Assignment to Advisor and Authorization of Degree Program

As a graduate student studying for a certificate, master's, specialist's, or doctoral degree, an advisor in your area of specialization will be appointed by the department chairperson. You will receive notification of assignment to an advisor shortly after admission to a graduate program. As soon as possible after receiving this notification, an Authorization of Degree Program - Graduate or Certificate Program form should be filled out in consultation with your advisor and a copy placed on file in the College of Graduate Studies. This authorization will ensure that courses you take will count on your program; courses you take prior to authorization may not count.

If registering for graduate coursework prior to being assigned to an advisor, read carefully the appropriate sections of this Bulletin or consult the appropriate department chairperson to make certain that the courses you register for are applicable to your program of study.

Changes to an authorized program should be made via the Course Substitution form available in the College of Graduate Studies. For a certificate, master's, or specialist's program, the form requires the advisor's signature. For a doctoral program, the form requires the signatures of the advisor and the Dean of the College of Graduate Studies.

Residence Requirement

A graduate student should devote such time to graduate study and research in residence at CMU as may be appropriate to the program of study. Students are expected to take every opportunity to work in close association or collaboration with graduate faculty members, with other graduate students in the same program, and with distinguished visiting scholars. These opportunities exist at the university campus and in classes, seminars, internships, and research projects organized or placed elsewhere as part of the university's continuing involvement in a broadly-based commitment to education.

Access to Records

University policy grants students access to their education records under conditions which conform to the Family Educational Rights and Privacy Act of 1974 as amended and regulated by the appropriate federal guidelines.

Directory information may be published or released by the university unless a student informs the Registrar's Office in writing that any or all items should not be released without the student's prior consent. Directory information is defined to include such items as a student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height (of members of athletic teams), dates of attendance, degrees and awards received, and the previous educational institution attended by the student.

Distance Learning Courses

Courses in distance learning format (e.g. web-based courses 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 and degrees in this Bulletin.

Transcripts

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

General Regulations

Matters upon which there has been no direct legislation for graduate students will be governed by the general university regulations.

Degree Candidacy

Admission to Candidacy

Specialist's Degree. Admission to graduate study does not imply Admission to Candidacy for any specialist's degree. Admission to Candidacy is granted only after the applicant has:

1. Fulfilled all the prerequisites for admission to the degree program;
2. Fulfilled all special requirements, such as admissions tests, letters of recommendation, and qualifying examinations specified by the department which has jurisdiction over the curriculum;
3. Submitted an Authorization of Degree Program - Graduate form approved and signed by the advisor;
4. Completed at least ten hours of graded graduate coursework on the chosen program at CMU with a cumulative graduate grade point average of 3.0 or higher in all of this work;
5. Filed an Admission to Candidacy - Specialist Degree form approved by the advisor and the Dean of the College of Graduate Studies.

Ph.D. or Ed.D. Degree. (Other doctoral programs may require candidacy.) Admission to graduate study does not imply Admission to Candidacy for a Ph.D. or Ed.D. degree. Admission to Candidacy is granted only after the applicant has:

1. Fulfilled all the prerequisites for admission to the degree program;
2. Fulfilled all special requirements, such as admissions tests, letters of recommendation, and additional student background information specified by the department;
3. Submitted an Authorization of Degree Program - Doctoral form approved and signed by the advisor.
4. Completed most of the prescribed coursework for the degree with a cumulative graduate grade point average of 3.0 or higher, satisfied any research or professional tool requirements established by the department, and passed a comprehensive examination conducted and evaluated by the student’s examination committee;
5. Filed an Admission to Candidacy - Doctoral Degree form approved by the advisor and the Dean of the College of Graduate Studies. (continued)
Degree Requirements

Students may elect to graduate under the curricular requirements and regulations in any Graduate Bulletin in effect between the date of the original admission on a graduate degree or certificate program and the date that degree or certificate was received with such modifications and substitutions as may be necessitated by changes and developments in the university's programs.

Graduate Certificate. You are eligible to receive a graduate certificate* after you have:

1. Received Regular Admission to the graduate program and filed an Authorization of Degree Program - Graduate form approved and signed by an advisor;
2. Completed fifteen to eighteen hours of graduate course work approved by the advisor. Courses used on previous graduate degrees or certificates may not be counted towards the certificate. If a student has not had adequate preparatory coursework for the curriculum chosen and has to take additional coursework to make up any deficiencies, these courses are not included in the fifteen to eighteen hour graduate course work requirement. These courses will, however, be stated on the Authorization of Degree Program - Graduate form. Any course in which the student earns a grade below C is not acceptable in fulfillment of a graduate certificate requirement;
3. Fulfilled all of the requirements of the curriculum on which the student is enrolled and all other university regulations pertaining to the program;
4. Obtained a cumulative graduate grade point average of 3.0 (B) or higher in graded graduate coursework at CMU and a cumulative graduate grade point average of 3.0 (B) in all coursework on the student's authorized degree program;
5. Completed all requirements for the graduate certificate within four years after matriculation in the program. Courses completed more than four years prior to graduation cannot be used to meet graduation requirements without an extension of the time request approved by the advisor, chairperson of the department offering the graduate certificate, and the Dean of the College of Graduate Studies. See Extension of Time section for further information.
6. Made application for the graduate certificate by the date specified in the section titled Deadlines on the inside front cover of this Bulletin, filed a Graduation Application in the College of Graduate Studies, and paid the required graduation fee. (See Graduation Procedures.)

*NOTE: Graduate Certificates as described in this section are not related to earning a teaching certificate. See page 229 of this Bulletin for Teacher Certification information.

Master's Degree. You are eligible to receive a master's degree after you have:

1. Received Regular Admission to the degree program and filed an Authorization of Degree Program - Graduate form, approved and signed by the advisor;
2. Completed a minimum of thirty hours of graduate work approved by the advisor. Courses in which you earn a grade below C are not acceptable in fulfillment of this degree requirement. If you have not had adequate preparatory coursework for the curriculum chosen, you must take additional coursework to make up the deficiencies either in the field of specialization, in cognate areas, or both, as determined by your advisor. If you must earn more than thirty hours to receive the degree, the additional hours and their nature will be stated in the Authorization of Degree Program - Graduate form;
3. Fulfilled all of the requirements of the curriculum on which you are enrolled and all other university regulations pertaining to the program;
4. Obtained a cumulative graduate grade point average of 3.0 (B) or higher in graded graduate coursework at CMU and a cumulative graduate grade point average of 3.0 (B) in all coursework on the student's authorized degree program;
5. Earned at least fifteen of the hours presented for the degree in courses at or above the 600 level;
6. Fulfilled all other university regulations pertaining to your program;
7. Submitted evidence of scholarship and/or creative or artistic ability beyond the completion of coursework. Two plans, differing to some extent in the various departments, are in general use. Subject to the approval of the major advisor, you may choose either plan.
   - Plan A consists of coursework, a thesis (6 credits), an oral defense of the thesis.
   - Plan B consists primarily of coursework, requires no thesis, but must include additional significant evidence of scholarship, such as research, independent studies, internships, or practica and/or creative or artistic ability which the department of the field of specialization may wish to prescribe.
   A comprehensive examination over the field of specialization may be required under either Plan A or Plan B. It shall be the responsibility of the department chairperson or program coordinator to notify the College of Graduate Studies of the student's fulfillment of the Plan A or Plan B requirements;
8. Made application for the degree and diploma by the date specified in the section titled Deadlines on the inside front cover of this Bulletin;
9. Completed all requirements for the degree within seven years after matriculation in the program. Courses completed more than seven years prior to the date of graduation cannot be used to meet the graduation requirements without an extension of time request approved by the advisor, chairperson of the department offering the degree, and Dean of the College of Graduate Studies. See Extension of Time section for further information.
10. Filed a Graduation Application in the College of Graduate Studies and paid the required graduation fee. (See Graduation Procedures.)

Specialist's Degree. You are eligible to receive the Specialist's in Psychological Services degree or Specialist's in Education degree after you have:

1. Received the master's degree, if this is a prerequisite on your curriculum;
2. Been admitted to candidacy for the appropriate specialist's degree;
3. Completed a minimum of sixty semester hours (thirty hours beyond the master's degree if the master's is required or was earned elsewhere) of graduate work approved by your advisor. Courses in which you earn a grade below C are not acceptable in fulfillment of this degree requirement;
4. Fulfilled all of the requirements of the curriculum program in which you are enrolled and all other university regulations pertaining to your program;
5. Obtained a cumulative graduate grade point average of 3.0 (B) or higher in graded graduate coursework at CMU and a cumulative graduate grade point average of 3.0 (B) in all coursework on the student's authorized degree program;
6. Completed a thesis or field study as part of your master's or your specialist's degree.
7. Earned at least twenty of the last thirty hours of coursework at or above the 600 level;
8. Applied for the degree and diploma by the date specified in the Deadline section on the inside front cover of this Bulletin;

9. Completed the requirements for the degree within seven years after matriculation in the program. Courses completed more than seven years prior to the date of graduation cannot be used to meet the graduation requirements without an extension of time request approved by the advisor, chairperson of the department offering the degree, and the Dean of the College of Graduate Studies. See Extension of Time section for further information.

10. Filed a Graduation Application in the College of Graduate Studies and paid the required graduation fee. (See Graduation Procedures.)

**Doctoral Degree.** Students are eligible to receive a doctoral degree as approved and implemented by the university after having:

1. Received a master's or specialist's degree, if this is a prerequisite on the curriculum;
2. Acquired the research skills of the discipline as required by the department;
3. Passed a comprehensive examination or comprehensive clinical assessment evaluated by more than one member of the graduate faculty;
4. Been admitted to candidacy for the doctoral degree (if a Ph.D., Ed.D., or DHA degree program);
5. Completed a minimum of ninety semester hours of graduate work beyond the bachelor's degree with a graduate grade point average of 3.0 or better and a cumulative graduate grade point average of 3.0 (B) in all coursework on the student's authorized degree program. Coursework will be selected in consultation with the student's academic advisor or advising committee;
6. Maintained at least a cumulative graduate grade point average of 3.0. Courses in which the student earns or has earned a grade below C do not count toward meeting any degree requirements. A student with more than two grades below B- may not be awarded a Ph.D., D.H.A., or Ed.D. degree. Coursework that is not part of the student's doctoral program of study is excluded from this policy. Particular programs may have more stringent grade requirements;
7. Fulfilled all the requirements on the authorized doctoral program as developed by the student and the student's advisor or advising committee. The advisor or advising committee will supervise the program until the degree is completed or until it has been determined that the student should discontinue doctoral study;
8. Earned at least fifteen hours in courses at the 700 level or above (excluding dissertation, doctoral project and internship credits) and fifty of the total hours at the 600 level or above;
9. Prepared a doctoral dissertation, or in the case of some applied programs, a doctoral project. A doctoral project must be conducted under an advisor who meets the requirements for regular graduate faculty status as defined by the Academic Senate's Graduate Education Policy. All other policies and procedures for the doctoral project are to be determined by the academic program and will be presented in the section of the bulletin pertaining to the academic program. For the dissertation, you may receive a minimum of twelve hours of credit and a maximum of thirty-six hours of credit as specified on the authorized doctoral program under the guidelines of the specific department. The research for the dissertation will be conducted under the guidance of a dissertation supervisor and must be approved by a doctoral committee consisting of at least three graduate faculty members. The student must pass an oral defense of the completed dissertation. The committee members are the examining committee and determine whether the student passes the defense. The dissertation must be prepared according to the regulations prescribed in the College of Graduate Studies’ most recent edition of the Guidelines for the Preparation of Theses, Doctoral Projects, and Dissertations.
10. Completed the requirements for the doctoral degree within eight years prior to the award of the doctoral degree with prior relevant graduate degree and ten years if the student began doctoral study without prior relevant graduate degree. Courses completed outside these time frames may not be used to meet the graduation requirements without an extension of time request approved by the advisor, chairperson of the department offering the degree, and the Dean of the College of Graduate Studies.
11. Filed a Graduation Application in the College of Graduate Studies and paid the required graduation fee. (See Graduation Procedures.)

**NOTE:** Particular doctoral programs may have more specific or more stringent program requirements.

**Thesis, Doctoral Project, or Dissertation.** The satisfactory completion of a thesis is a requirement on some master's degree programs and optional on others. The satisfactory completion of a thesis at CMU is a requirement for some specialist's degrees, and satisfactory completion of a doctoral project or dissertation is a requirement for some doctoral degrees. Satisfactory completion is determined by the student's committee, department, college, and the College of Graduate Studies.

Students should be aware that the university has specific policies that govern research involving human or animal subjects and recombinant DNA. Information on experimentation may be obtained from the department chairperson, committee chairperson, or the Office of Research and Sponsored Programs.

For stylistic guidelines, students are expected to follow the most recent College of Graduate Studies' requirements, which are explained in the Guidelines for the Preparation of Theses, Doctoral Projects, and Dissertations. These guidelines are available online at [www.grad.cmich.edu/forms.htm](http://www.grad.cmich.edu/forms.htm).

If students are writing a thesis/doctoral project/dissertation, it will be evaluated by a committee. Students should consult their advisor in selecting a committee chairperson and at least two committee members. The advisor may or may not be the committee chairperson, depending upon the student's academic emphasis. One member of the committee may be from a discipline other than that of the student's area of concentration. All members of the committee must have graduate faculty status. Students can check their committee members' status by contacting the College of Graduate Studies.

For theses/doctoral projects/dissertations completed through Central Michigan University's Off-Campus Programs, one of the three committee members must be a CMU on-campus regular faculty member or a regular faculty member from a collaborating university (such as in a joint program), or if all committee members are from off-campus, the committee chair must meet the requirements for regular graduate faculty status as defined by the Academic Senate's Graduate Education Policy and be approved as committee chair by the department.

The chairperson of the thesis/doctoral project/dissertation committee will have active direction of the work, but may wish to consult with other members of the committee about matters pertinent to its development. The committee as a whole, however, will determine the quality of the work.

After a committee has been selected and a topic chosen, a Prospectus - Theses, Doctoral Projects, and Dissertations form must be completed by the student and signed by the committee (continued)
chair and members, the department chairperson, and the Dean of the College of Graduate Studies. Projects must not be undertaken until the form is approved by the Dean of the College of Graduate Studies. Projects undertaken prior to the Dean of the College of Graduate Studies approving the Prospectus may be denied, the project deemed invalid, and the student will have to begin the thesis/dissertation process anew. The department may require a more detailed prospectus.

Each student who submits a thesis/dissertation must enroll for credit. Letter grades are not used in the evaluation of the thesis/dissertation; therefore, the student's grade point average is not affected by credit earned for these. In all departments the thesis/dissertation is designated as credit (CR) if acceptable and no credit (NC) if not acceptable. Students will receive six semester hours of credit for an acceptable thesis. For a dissertation, a minimum of twelve and a maximum of thirty-six semester credit hours may be earned depending on the guidelines for the specific department. A student may not enroll for more than three credits of the thesis/dissertation until the project prospectus has been approved at the department level and composition of the committee has been verified by the Dean of the College of Graduate Studies. Projects must not be undertaken until this takes place. Projects undertaken prior to the Dean of the College of Graduate Studies approving the Prospectus may be denied, the project deemed invalid, and the student will have to begin the thesis/dissertation process anew. Credit will be granted upon satisfactory completion of the thesis/dissertation, and its acceptance by the committee and approval of the College of Graduate Studies.

Final Stages of Thesis, Doctoral Project, or Dissertation Preparation.

Beginning for December, 2009, Graduation, the Thesis, Doctoral Project, Dissertation Process will be online. Please consult the Guidelines for the Preparation of Theses, Doctoral Projects, and Dissertations for the correct process and University expectations.

The final draft of the defended, committee-approved thesis/doctoral project/dissertation must be submitted to the College of Graduate Studies for approval according to the published deadline date. Consult the Guidelines for the Preparation of Theses, Doctoral Projects, and Dissertations for the most current deadline dates. Failure to meet this deadline or any departmentally stipulated deadline, may result in the student's graduation being delayed until the following semester.

Students are responsible for keeping a copy of the final, approved by the College of Graduate Studies thesis/doctoral project/dissertation. The College of Graduate Studies does not return any copies. The University requires that two copies of the thesis/doctoral project/dissertation be bound. One copy is sent to the Park Library and the other copy becomes property of the student's academic department. Students should check with their department as to whether additional copies are required to be bound.

Following final approval of the thesis/doctoral project/dissertation by the College of Graduate Studies, the Dean of the College of Graduate Studies will sign the thesis/doctoral project/dissertation signature page and a Thesis, Doctoral Project, Dissertation Binding & Microfilming Approval Form is issued by the College of Graduate Studies. This form must accompany the thesis/doctoral project/dissertation to Printing Services for binding (all documents) and the Park Library (optional for theses and doctoral projects; required for dissertations). Once the approval form has been signed by the appropriate department(s), it must be returned to the College of Graduate Studies (Foust 100). Not until the signed approval form is returned to the College of Graduate Studies will the student's graduation audit reflect that the thesis/doctoral project/dissertation requirement has been fulfilled.

Field Study. A field study requires the student to conduct a major project approved and directed by an advisor who meets the requirements for regular graduate faculty status as defined by the Academic Senate's Graduate Education Policy. Upon completion of the field study, the student must pass a publicly announced oral defense of the project.

Graduation Procedures

At least eight weeks before the end of the semester in which a student expects to graduate, he/she must send a completed Graduation Application form, along with a check or money order for $50.00 (made payable to CMU) to the College of Graduate Studies. Deadline dates are published on the front inside cover of this Bulletin.

Application for Graduation. In order to graduate, the student must submit a Graduation Application form. The form must be submitted to the College of Graduate Studies no later than the deadline specified on the inside front cover of this Bulletin. At the time of filing the graduation application, it is the responsibility of the student to determine whether his/her advisor will be available to approve the thesis or to sign any other papers necessary for graduation. In the event the student's advisor will not be available on campus at such a time, the student assumes responsibility for making suitable arrangement for the approval of the thesis, field study, dissertation, or other papers with the advisor prior to the advisor's departure.

Graduation Audit. After a student submits a Graduation Application form, the student's record is audited in the College of Graduate Studies to verify completion of program requirements. After the audit is complete, the student and advisor will each be mailed an audit form indicating either that all requirements are satisfied or that the student has requirements left to complete. If there are requirements left to complete, the audit form indicates what the student must do before graduating. Students who fail to complete requirements by the deadline will receive a Failure to Complete Requirements For Graduation form, indicating that they will not graduate at the upcoming graduation and advising them to apply for the next graduation period. Students must reapply to graduate in a subsequent semester; the fee for each subsequent graduate application is $25.00.

To encourage students to monitor their own progress toward graduation, the College of Graduate Studies has developed a Self Audit form, available in the College of Graduate Studies. Although it is not mandatory, students are urged to complete the Self Audit before submitting a Graduation Application.

Diplomas. Diplomas are mailed to students about six weeks after commencement. If a student needs evidence of degree completion in less than six weeks, written verification is available through the College of Graduate Studies.

Post-Baccalaureate Teacher Certification

A post-baccalaureate student is defined as a student with a non-teaching bachelor's degree from a four-year approved teacher training accredited institution who is seeking teacher certification, a student with a teaching degree who is seeking teacher certification and/or endorsement in an additional area, or a student with a teaching degree who is seeking provisional or professional certification and/or endorsement in an additional area.

1. Post-baccalaureate students must follow the “Standards Leading to Teacher Certification” as published in the appendix of this Bulletin and meet State Department of Michigan requirements listed in the Teacher Education Student Handbook.
2. Post-baccalaureate 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. Post-baccalaureate 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 Department of Teacher Education and Professional Development 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 Center for Student Services will audit the signed major and minor of all post baccalaureates students to certify that they have met all the requirements before recommending them for certification. Every semester each department will receive a list of its majors and minors who have been recommended for certification and/or endorsement.

6. Certification will be recommended for those teaching areas in which CMU presently offers a major or minor.

7. For students who have initial teaching certification, a Planned Course of Study leading to a professional certificate must be approved by an appropriate departmental advisor.

NOTE: See Appendix I for complete information on teacher certification policies and procedures.

Small Grants and Awards

The College of Graduate Studies offers four competitive awards for graduate students.

Research Grants. Graduate Student Research Grants provide up to $700 and Dissertation Support Awards provide up to $2,000 to offset costs associated with conducting research. Applications are reviewed twice each year, in October and in February. Applications are available on the college website under Applications and Forms: www.grad.cmich.edu. Decisions for Graduate Student Research Grants are made by a subcommittee of the Graduate Council; decisions for Dissertation Support Awards are made by faculty from the doctoral programs.

Publication and Presentation Grants. Graduate Student Publication and Presentation Grants are awarded to assist graduate students whose research or creative endeavors are accepted for publication or presentation at the state, national, or international level. The grant consists of reimbursement for up to $350 of expenses associated with publication or presentation. There is no deadline for applications. Applications are available from the College of Graduate Studies and are reviewed as they are received.

Outstanding Thesis and Dissertation Awards. Outstanding Thesis and Dissertation Awards are announced in October to recognize significant scholarly activity by graduate students and the contribution made by their faculty supervisors. Students may be nominated by any faculty member for an outstanding thesis, dissertation, doctoral project or Plan B paper, completed at CMU during the 12 months prior to the nomination. Nominations are due in September. Applications are available on the college website under Applications and Forms: www.grad.cmich.edu. Decisions are made by a subcommittee of the Graduate Council.

Academic Regulations

Credit and Points

The university uses specified quantitative and qualitative standards to appraise the quality of work done by its students.

Quantitative Unit. The quantitative unit of credit is the semester hour.

Qualitative Unit. The qualitative credit is the grade or rating used by the instructor to indicate an evaluation of the results accomplished. The work of the student in each course completed is rated in accordance with the following marking system.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>Superior</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
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<tr>
<td>C+</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>0.0</td>
<td>Failing</td>
</tr>
</tbody>
</table>

1. Does not count toward graduate degree; does count on grade point average.

2. Counts for graduation, but not on grade point average.

There is no grade of D in the graduate marking system. When a D grade is assigned to a graduate student, the Registrar’s Office will convert the grade to an E before recording it on the student’s permanent record. Courses in which the student earns or has earned a grade below C do not count toward meeting any graduate degree requirement, nor are they accepted, following the completion of the baccalaureate degree, for the removal of deficiencies. Particular programs may have more stringent grade requirements.

The grading system also applies to undergraduate courses taken for undergraduate or graduate credit by a student admitted to the College of Graduate Studies.

Points. To compute the quality of work done, points are assigned to letter grades as indicated above for credits earned at the university.

Grade Point Average

The grade point average (GPA) for graduate students is computed by dividing the total points earned in graduate courses by the total semester hours of graduate courses attempted at CMU and graded A through E on the qualitative scale. Courses to be included in the computation of the grade point average must be graduate level. Such courses include all courses at or above the 500 level and those 300 and 400 level courses which have been specifically approved for a student’s graduate program. Credits graded CR/NC at this university and credits accepted in transfer from other institutions are not included in the computation.
Academic and Retention Standards

In order to obtain a graduate degree, a student must have at least a 3.0 (B) cumulative grade point average, and a cumulative grade point average of 3.0 (B) in all coursework on the student's authorized degree program. The policies which follow deal with cumulative grade point average; the College of Graduate Studies monitors overall grade point averages and follows these procedures when a student's cumulative grade point average is below a 3.0. When a student's cumulative grade point average in the academic program falls below a 3.0, the graduate program will monitor and initiate action relative to these procedures.

If, in the first semester after being placed on probation, a student obtains a semester GPA of at least 3.0 with a cumulative GPA below 3.0, the student will be allowed a second semester to raise the cumulative GPA to a 3.0. The student will remain on probation and will be so notified by the College of Graduate Studies.

If, in the first semester after being placed on probation, a student in a degree program does not obtain a semester GPA of at least 3.0, then the Dean of the College of Graduate Studies will ask the department to make a recommendation as to whether the student should be allowed a second semester to raise the cumulative GPA to a 3.0. The Dean will consider the department's recommendation and notify the student of the Dean's decision. If the student is a non-degree student, then the student must petition the Dean of the College of Graduate Studies to continue taking graduate classes. The Dean will make a decision on whether to extend probation and will notify the student of the decision.

All students are expected to raise their cumulative GPA to a 3.0 within two semesters of being placed on probation. When they are successful in achieving this goal, they will be removed from probation. If a student does not raise his/her cumulative GPA to a 3.0 within two semesters of being placed on probation, the student will be dematriculated. If the student is in a degree program, the relevant department may specifically request an exception to policy. If the Dean of the College of Graduate Studies concurs, the student will be granted one more semester to raise his/her GPA to a 3.0.

Given the time it takes to implement these procedures, it is possible that a student will be dematriculated after he/she has registered for classes and perhaps even started attending them. If that is the case, the student will be dropped from the classes.

In addition to maintaining a satisfactory cumulative grade point average, students in graduate programs must abide by the university's "Academic Integrity Policy," which specifically prohibits "plagiarism, cheating and other forms of dishonest or unethical behavior..." Violations of the Academic Integrity Policy may lead to sanctions as described in the policy.

In addition, departments involved in clinical programs may evaluate students on the basis of their ability to relate successfully with clients. Students who do not meet the professional standards established by departments may be placed on probation, suspended, or dismissed from a program.

In cases where a student fails to satisfy departmental graduate program requirements, the Dean of the College of Graduate Studies, upon the recommendation of the advisor and the departmental chairperson or program coordinator, and after review of the student's academic progress, may remove the student from the graduate program. Examples of specific departmental requirements to be met by students include, but are not limited to the following: (1) writing competency; (2) the number of attempts made in passing comprehensive or qualifying exams; (3) the completion of required papers or theses; and (4) meeting university and departmental time limitations.

Students dismissed from graduate study, regardless of whether they were non-degree students or students pursuing a graduate certificate or degree, may petition for readmission no sooner than one academic year after the semester they were dismissed. Exceptions to this waiting period can be granted by the Dean of the College Graduate Studies. A dismissed student can apply for either non-degree admission or admission to a graduate program. Admission as a non-degree student will be decided by the Dean of the College of Graduate Studies. Admission to a graduate program will be decided by the procedures normally used for that program.

("Semester" refers to semester for which the student registers. For example, "the first semester" refers to the first semester for which the student registers to take classes. A student may request that the two summer sessions be treated as a single semester.)

Outdated Courses

In cases in which a graduate course is inadmissible on a student's program because it predates the stipulated time period for the completion of the degree, both the course and the grade pertaining thereto shall be disregarded for purposes of evaluating the student's performance toward the graduate degree or his or her status within the program.

Credit/No Credit (CR/NC)

Courses in which graduate student performance is evaluated CR/NC, rather than by a letter grade on the A through E scale, carry the designation "CR/NC only" in the departmental course descriptions. CR indicates that the student has performed at a level equivalent to or above the grade point average for graduation (B grade) and shall receive credit in the course. NC indicates that the student has performed at a level lower than a B and shall not receive credit. In either case, the title and other course identification and the symbol CR or NC shall be entered on the student's transcript. CR and NC are not equated with qualitative letter grades, however, and are not included in computation of the student's grade point average. Optional registration for Credit/No Credit in other graduate courses is not available to graduate students.

Optional registration for Credit/No Credit is available to graduate students who register in a course below the 500 level for undergraduate credit. Courses taken under this provision may not be applied to graduate certificate or degree requirements. Such optional registration for undergraduate credit is not available to students removing deficiencies specified in their Conditional Admission. The courses for which graduate students may register for undergraduate credit on a CR/NC option basis must be designated in the Class Schedule by the department as available on a CR/NC option basis. Procedures for registration, grading, and recording are explained in the CMU undergraduate Bulletin under Credit/No Credit Policy.

Incomplete Grades (I)

An incomplete (I) 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 the grade of I also submits to the department
chairperson a formal statement 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
to complete 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 grade of 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. A grade of I may not be removed by
registering again for the course.

If the instructor of the class in which the grade of I was incurred
is no longer a member of the faculty, then 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 Grades (Z)
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 exten-
sion of time. An instructor who assigns a grade of Z shall submit
to the department chairperson, on the proper form, a statement
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.

Repeat Course Policy
To improve a grade previously earned at CMU, a student may
repeat any course except an Independent Study course. The
last grade and credit hours earned at CMU completely replace the
previous grade and credit hours in computing the grade point
average, although the earlier record remains a part of the student's
transcript. A grade of A through E must be earned in a repeat
course to replace the previous grade in computing the average.

A Repeat Course Request card, available from the Registrar's
Office, must be filed by the student with the Registrar's Office
before repeating the course. Procedures and deadlines for repeat
cards are found in the Class Schedule book.

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
with the student and give evidence to make clear his or 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 or 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 or 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 college involved.
In such cases that 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 judgement
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 that he or 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 or her performance in the
course; (b) the assignment of a grade to a particular student
by resorting 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. If the instructor of the course
is a member of the committee, he or she shall be disqualified
from the consideration of that appeal.

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 finds 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 for the course. The decision
of the committee shall be final and shall be reported in writing
to the student, instructor, and departmental office.

(continued)
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.

Courses of Unspecified Content or Variable Credit

Variable credit courses are identified by a semester hour designation such as 1-3 (Spec). The maximum hours that a student may earn in a variable credit course to apply toward graduation is the highest number in the semester hour designation for the course (i.e., 3 hours maximum in the example listed above).

Unspecified content courses are defined to be courses in which the student or department is not restricted by the course description in the graduate Bulletin to a specific area or subject matter to be included within the course.

It is up to each graduate advisor to ensure that a student's authorized program plan has sufficient university-approved coursework to provide the student with a solid grounding in the academic discipline. In order to assist advisors, a list of variable credit and unspecified content courses is given before the course listings of each department.

Independent Study and Thesis

Not more than a total of ten hours of independent study and thesis shall be allowed on any master's degree program. Exceptions to this regulation may be granted by the Dean of the College of Graduate Studies.

Graduate Transfer Credit Policy

Transferable Credit:

- **Graduate Certificate**: maximum of 6 semester hours. Courses used on a previous graduate degree or certificates may not be counted toward a graduate certificate.
- **Master's Degree**: maximum of 50% of the semester hours (exception: maximum of 30 semester hours on the 54 credit hour joint master's degree in history are transferable).
- **Specialist's Degree**: maximum of 12 semester hours beyond the master's degree if the master's degree was earned at CMU (exception: maximum of 8 semester hours beyond the master's degree if the degree was not earned at CMU).
- **Doctoral Degree**: maximum of 50% of the post-baccalaureate semester hours. Minimum percentage that must be earned at CMU can vary among academic programs.
- **Maximum of 6 semester hours may be transferred from one earned degree to another master's or higher degree program.**
- **Military coursework**: coursework with a grade of outstanding or excellent is transferable.

A separate policy exists for the following: Students entering the Au.D. with a master's degree in Audiology and significant, relevant professional experience. See the Au.D. program description for details. Students in California are limited to six semester hours or prior learning according to California regulations.

Graduate transfer credits must be approved by the student's academic advisor (for graduate certificates and Master's degrees) or Program Director (doctoral degrees) and the Dean of the College of Graduate Studies.

- **Courses earned by correspondence are not eligible for graduate transfer credit.**
- **Transfer credits must be earned within the time limit for program completion. Transfer credits are not eligible for extension of time consideration.**
- Transfer credits are not included in the computation of the student's CMU graduate grade point average. Exceptions to any aspect of this policy will be considered only in extraordinary circumstances and will be granted at the discretion of the Dean of the College of Graduate Studies.

Waiver of a Program Requirement

An advisor/program director has the authority to waive a program requirement only if the proposed waiver is not in violation of any pertinent university regulation, procedure, or policy. Circumstances under which a course might be waived include:

1. The student has already met the required course objectives through some experience which was not in the form of a transferable course;
2. The student has not met the objectives of the course, but the advisor/program director determines that the student would derive greater benefit from a different course.

If a program requirement is waived, the minimum number of hours required for the program is unaffected.

A separate policy exists for students entering the Au.D. with a master's degree in Audiology and significant, relevant professional experience. See the Au.D. program description for details.
Additional Master's Degrees

A student who holds a master's or higher degree may earn an additional master's degree in another discipline. With the approval of the department chairperson and the graduate dean, a student holding a degree in a discipline may earn another master's degree in the same discipline, provided it is on a different published option. In any case, a maximum of six semester hours submitted in fulfillment of the prior degree program at CMU or elsewhere may subsequently be transferred to another master's degree program, provided the hours apply to the stated requirements of the subsequent program and were earned within seven years of the student's completion of the additional degree.

Credit by Examination

A student who has been admitted to a graduate degree program and who has had experience or background comparable to a course at this university may file for a maximum of 12 semester hours of credit by Examination under the following conditions:
1. No credit transferable to CMU has been earned in the course requested by examination;
2. No advanced placement has 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. Graduate credit by examination is available as Credit/No Credit only, and is not included in the computation of the student's grade point average.

At the time of the request, the student must have an Authorization of Degree Program signed by the advisor on file in the College of Graduate Studies. The student should obtain the application form for the credit by examination from the College of Graduate Studies and then obtain approval from the faculty member administering the examination, the department chairperson, and the Dean of the College of Graduate Studies. Approval may be granted for the number of credits requested or any portion of the credits requested. The student should submit the signed application for credit by examination to the Registrar's Office to register for the number of credits approved.

General Course Information

Course Numbers

Courses numbered 300 through 599. Advanced undergraduate courses (see above on 300 and 400 level courses). A student who has been admitted to graduate studies and who takes courses numbered 500 and higher will receive graduate credit. Approval by the advisor is necessary to apply these and all credits on the student's degree program.

Courses numbered 600-699. Graduate courses open only to students who have been admitted to the College of Graduate Studies, and to students in the Honors Program who present appropriate approval.

Courses numbered 700-799. Graduate courses open only to students who have been admitted to the College of Graduate Studies.

Courses numbered 800-899. Graduate courses open only to students who have been admitted to the College of Graduate Studies and who are at the post-master's level or are completing a full-time internship at the specialist's level.

Courses numbered 900-999. Graduate courses open only to doctoral students who are in the last years of their program.

600-Level Course Policy for Undergraduate Students.

Open only to students who have been admitted to the College of Graduate Studies, to students on the Honors Program who present appropriate approval, and to students who are approved by their advisor, course instructor, chairperson of the department offering the course and the College of Graduate Studies. In granting approval, the College of Graduate Studies will rely on the criteria for admission to the Honors Program.

Cognate Courses

A cognate course is one outside of but related to the principal discipline.

Substitutions

Course substitutions appropriate to the student's program may be authorized by the advisor.

Prerequisites

A student may register for a class only if he or she has met the prerequisites prescribed or the requirements stated in this Bulletin. Procedures for granting exception vary by graduate program. Students should check with their department chairperson or graduate program coordinator to determine waiver procedures for their program.

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 permission. Such substitutions are not automatic.

Correspondence Courses

These carry undergraduate credit only and may not be applied toward the fulfillment of any graduate degree requirement.

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.
Additional Academic Programs

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. Unlike coursework completed in other off-campus programs, most Midland Program coursework is considered to be “on campus” and thus carries full resident credit.

For MBA information, call (989) 774-3150. For MS in Chemistry information, call 989-774-3981.

Michigan Intercollegiate Graduate Studies (MIGS)

The Program. The Michigan Intercollegiate Graduate Studies (MIGS) program enables graduate students who are in good standing in a degree program to elect courses at various graduate schools in Michigan, with the approval of both Host and Home faculty. This program for guest scholars enables graduate students to take advantage of unique educational opportunities throughout the state. The schools participating in MIGS include: Andrews University (Berrien Springs), Aquinas College (Grand Rapids), Calvin College (Grand Rapids), CMU, Eastern Michigan University (Ypsilanti), Grand Valley State University (Allendale), Madonna University (Livonia), Marygrove College (Detroit), Michigan State University (East Lansing), Michigan Technological University (Houghton), Northern Michigan University (Marquette), Oakland University (Rochester), Saginaw Valley State University (University Center), Siena Heights College (Adrian), University of Detroit Mercy (Detroit), University of Michigan (Ann Arbor), Wayne State University (Detroit), and Western Michigan University (Kalamazoo).

Procedures. The Home Institution is where the student is currently enrolled in a graduate degree program; that is, CMU. The Host Institution is where the student wishes to be a guest.

The student and academic advisor initially decide if the course(s) are appropriate to the student's program of study and not available at his/her Home Institution. Then the advisor discusses the plan with the appropriate faculty members at the Host Institution. The Host Department is consulted to ensure that space is available for enrollment. Next the student obtains a MIGS application from the College of Graduate Studies at CMU. The academic advisor and the Dean of the College of Graduate Studies sign the application to indicate that the student is qualified and eligible, and the College of Graduate Studies forwards the application to the Host Institution for completion. Once the admission has been approved by the Host Department, the MIGS Liaison Officer at the Host Institution issues admissions documents and provides registration instructions, and forwards a copy of the admission letter to the Home Institution.

Policies. The following policies apply to students participating in the MIGS program:

1. Students on a MIGS enrollment pay tuition and other fees normally charged by the Host Institution for the services rendered;
2. All credits earned under a MIGS enrollment will be accepted by CMU as if offered by CMU;
3. Grades earned in MIGS courses will be applied toward the student's grade point average for the purpose of determining academic standing and eligibility for graduation;
4. A student may combine a part-time enrollment at CMU with a part-time MIGS enrollment, with approval of the student's academic advisor;
5. Enrollments are limited to six credit hours for master's or specialist's degree students or nine credit hours for doctoral degree students; and
6. The student is responsible for arranging to have transcripts certifying completion of work under a MIGS enrollment forwarded to CMU.

Off-Campus Programs

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The typical procedure followed is to identify student needs, develop a schedule of courses, and counsel students into appropriate programs and time schedules. Continual liaison is maintained between Off-Campus Programs and cooperating educational institutions, governmental agencies, professional associations, 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 an individual program plan each student must use as a guide to attain his or her academic goals.

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

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

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

**Bulletin.** Students participating in programs offered through Off-Campus Programs should refer to the current Off-Campus Programs Bulletin for regulations and fees.
School of Accounting (ACC)

College of Business Administration

Philip L. Kintzele, Chairperson
312 Grawn Hall, (989) 774-3796

Robert G. Bromley, Ph.D., CPA, Information Systems
William R. Cron, Ph.D., CMA, Financial and Managerial Accounting
Gary Hayes, DBA, CPA, Management Accounting
Randall B. Hayes, Ph.D., Financial Accounting
William C. Hood, J.D., CPA, Tax Accounting
David J. Karmon, Ph.D., CPA, Financial Accounting
Philip L. Kintzele, D.B.A., CPA, Financial Accounting and Governmental Accounting
Vernon E. Kwiatkowski, D.B.A., CPA, Governmental Accounting
Debra McGilsky, Ph.D., CPA, Tax Accounting
Thomas R. Weirich, Ph.D., CPA, Auditing, Financial Accounting

Course Descriptions: ACC

ACC 501  Advanced Accounting 3(3-0)
Intercorporate investments and consolidated statements, purchases and pooling of interests, segment reporting, interim reporting, partnerships, foreign operations, and fund accounting. Prerequisites: completion of ACC 301 and ACC 302 with average of 2.5 GPA for both courses; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

ACC 511  Federal Income Tax II 3(3-0)
Formation, operation, distributions, redemption, dissolution, and liquidation of corporations, partnerships, Subchapter S corporations and personal holding companies; accumulated earnings tax; tax shelter investments. Prerequisites: ACC 311; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 512  Tax Research and Administration 3(3-0)
A study of the sources of tax law, professional tax research techniques, IRS procedures used to administer the tax system, and professional tax practice standards. Prerequisites: ACC 311; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

ACC 517  Federal Estate and Gift Taxation 3(3-0)
Concentrated study of federal taxation of death transfers and gratuitous lifetime transfers including preparation of decedents final income tax return. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.
**ACC 521 Managerial Cost Control Analysis 3(3-0)**
Principles and techniques of accounting data analysis and profit planning, measurement, evaluation, and control for management. Prerequisites: ACC 321; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor. Recommended: MGT 340.

**ACC 524 Budgeting: Planning and Control 3(3-0)**
Intensive study of budgeting for both profit and non-profit organizations. Prerequisites: ACC 321, FIN 332; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

**ACC 531 Auditing and Assurance Services 3(3-0)**
A study of assurance services offered by professional services firms with major emphasis on the traditional auditing concepts and procedures. Prerequisites: signed major authorization in accounting; completion or concurrent enrollment in ACC 370; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

**ACC 533 Auditing Procedures and Statistical Sampling 3(3-0)**
Auditing programs, work paper techniques, procedures, and statistical sampling. Prerequisites: ACC 531 with a grade of B- or better; BIS 221; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

**ACC 535 EDP Auditing and Control 3(3-0)**
EDP auditing including controls, applications, software, systems, and service center records. Prerequisites: ACC 531, BIS 221; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

**ACC 536 Forensic Accounting 3(3-0)**
The study of financial fraud and the methods of fraud detection, investigation, and prevention. Prerequisites: 75 semester hours completed; admission to professional Business Studies or graduate status.

**ACC 543 Fund Accounting 3(3-0)**
Accounting principles and procedures for governmental units and various non-profit organizations. Prerequisites: ACC 302 and permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

**ACC 550 Internal Auditing 3(3-0)**
Emphasis on internal auditing as an internal control. Standards, ethics, concepts, techniques, and reporting practices relevant to financial, compliance and operational auditing. Prerequisites: signed accounting major or minor; 56 hours completed; admission to Professional Business Studies.

**ACC 570 Strategic Accounting System Development and Implementation 3(3-0)**
The strategic design and implementation of accounting systems for competitive advantage. Topics include enterprise resource planning, business process re-engineering, change management and semantic object modeling. Prerequisites: ACC 301, ACC 302, ACC 321, ACC 370; 56 semester hours completed and admission to Professional Business Studies; or listed on signed major or minor or graduate students, permission of the MBA Director.

**ACC 597 Special Topics In Accounting 1-3(Spec)**
Advanced topics in accounting. Not more than 3 credits for 597 count toward accounting major, minor, or concentration. Prerequisites: permission of instructor; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

**ACC 605 Accounting Theory I 3(3-0)**
Various theories of income measurement and asset valuation. Roles of policy making bodies in formulating accounting and reporting standards. Basic objectives and elements of financial statements. Prerequisite: ACC 501 or concurrent enrollment in 501.

**ACC 689 Accounting Internship 3(Spec)**
Full time, on-the-job work experience for one semester in industry, government, or public accounting arranged through departmental internship supervisor. A research paper relating to the student’s work experience obtained on the internship is required. CR/NC only. Prerequisites: 12 hours of accounting, overall GPA of 3.2, accounting GPA of 3.2, acceptance by program supervisor.

**ACC 711 Tax Seminar 3(3-0)**
Development of tax principles and tax law; tax research methods; alternatives for tax law changes; effects of taxes in business decisions; tax administration and practice. Prerequisites: ACC 311, ACC 302, ECO 600.

**ACC 721 Managerial Accounting Seminar 3(3-0)**
Detailed analysis and discussion of controversial and contemporary problems and issues in managerial accounting. Prerequisites: ACC 321, FIN 332, ECO 600.

**ACC 730 SAP Configuration, Control & Implementation of Global Accounting Systems 3(3-0)**
Basic conceptual framework, design, implementation, and control of enterprise resource planning systems. This course is approved for offering in a distance learning format. Prerequisites: MBA 619.

**ACC 731 Auditing Seminar 3(3-0)**
Analysis and evaluation of current thought and prospective developments in auditing. Emphasis on philosophy, standards, concepts, postulates, and problem areas. Prerequisites: ACC 370, ACC 531, STA 282.

**ACC 741 Fund Accounting Seminar 3(3-0)**
Coverage of current developments and trends in areas of concern in nonprofit entities including special studies or problem areas and potential solutions. Prerequisite: ACC 543.

**ACC 791 Independent Studies 1-3(Spec)**
Directed reading or research on an approved topic. Prerequisites: 15 hours of graduate credit and instructor approval. Not more than 3 credits for ACC 791 may count toward accounting concentration.

**ACC 797 Special Topics In Accounting 1-3(Spec)**
Advanced topics in accounting. Prerequisite: permission of instructor. No more than 3 credits for ACC 797 may count toward accounting concentration.
ART 558 Independent Studio 1-12(Spec)
An individualized studio experience determined in consultation with a faculty member. Prerequisites: 56 semester hours or graduate status.

ART 560 Professional Development in Sculpture 3(0-6)
An individualized studio experience focusing on personal research of new techniques, processes, materials, history and concepts of traditional and contemporary sculpture, and professional development. Prerequisite: ART 260.

ART 570 Fiber Design V 3(0-6)
An individualized studio experience in fiber design beyond ART competency. Prerequisite: ART 470.

ART 575 Surface Design on Fabric II 3(0-6)
Advanced techniques and aesthetics for the application of image, patterning, and color with dyes and pigments through silk-screen, batik, paints, resists, and transfers on fabric. Prerequisites: ART 375 or graduate standing.

ART 584 Drawing in Florence 3(Spec)
An advanced drawing course in Florence, Italy, using the city as a source of inspiration for creative work. Prerequisites: ART 105 and permission of instructor.

ART 585 From Impressionism to the Present: New York Galleries 2(Spec)
Travel/study course to metropolitan galleries to view and study original works of art. Students who have taken ART 484 will do more comprehensive study.

ART 597 Special Studies 1-6(Spec)
Further in-depth graduate study when scholarly/studio adequacy beyond ART 497 is achieved.
Department of Biology  
(BIO, MAR)  

*College of Science and Technology*  

**Stephen Roberts, Chair**  
217 Brooks Hall, (989)774-3227  

Elizabeth Alm, Ph.D., microbial ecology, environmental microbiology  
Robert E. Bailey, Ph.D., quaternary paleoecology, ecological systems analysis, environmental impact assessment  
Gregory Colores, Ph.D., microbial ecology, soil microbiology, biodegradation  
Cynthia Damer, Ph.D., molecular mechanisms of membrane trafficking, cell biology, genetics, microscopy  
Joanne Dannenhoffer, Ph.D., botany, plant cell biology, plant physiology  
Ian Davison, Ph.D., physiological ecology of aquatic plants and algae  
Claudia B. Douglass, Ph.D., biology education, cognitive style and curricula development including environmental education  
Tracy Galarowicz, Ph.D., fish ecology and management  
Thomas M. Gehring, Ph.D., GIS applications, landscape ecology, management of wildlife-human conflicts, predator-prey ecology, wildlife conservation  
James C. Gillingham, Ph.D., behavior and ecology of reptiles and amphibians  
Steven W. Gorsich, Ph.D., stress tolerance and oxidative damage during yeast fermentation and spore development using cell, molecular, genetic and molecular techniques  
Michael J. Hamas, Ph.D., ornithology, ecology, conservation biology  
Philip L. Hertzler, Ph.D., developmental biology of aquatic and marine invertebrates  
Stephen J. Juris, Ph.D., toxin biochemistry, molecular mechanisms of bacterial pathogenesis, cellular biology of host-pathogen interactions  
Jonathan Kelty, Ph.D., stress tolerance, neurobiology, neural control of respiration, environmental physiology  
Donna King, Ph.D., algae, stream ecology  
Peter S. Kourtev, Ph.D., structure and function of microbial communities in the environment  
Debra Linton, Ph.D., ecology, biology education  
Eric W. Linton, Ph.D., bioinformatics, eukaryotic microbiology and systematics  
Fred M. McCorkle, Jr., Ph.D., developmental and comparative immunology of avian species  
A. Scott McNaught, Ph.D., limnology, zooplankton ecology, statistics  
Anna K. Monfils, Ph.D., plant biology, systematics and evolution  
Kirsten E. Nicholson, Ph.D., evolution and systematics of vertebrates, particularly reptiles and amphibians; museum studies  
Charles E. Novitski, Ph.D., eukaryotic molecular biology, recombinant DNA technology, plant nematode development  
John I. Scheide, Ph.D., mechanism and regulation of ion transport in cells and tissues of vertebrate and invertebrate species  
Jennifer Schisa, Ph.D., genetics, molecular biology, and microscopy applied to studies of germ cells in the nematode, C. elegans  

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Graduate Fellowships include a monetary award plus a tuition scholarship for 30 credits. Fellowships are awarded university wide on a competitive basis. Application materials are available from the College of Graduate Studies. The deadline is the first week in February. Applicants are asked to submit their Graduate Record Examination scores, including the advanced test in biology, and three letters of recommendation.
Raymond E. Hampton Excellence in Biology Research Award

Established in 1994 in recognition and appreciation of Dr. Hampton, who served 24 years as professor of biology at CMU. This merit-based award recognizes an outstanding second-year biology graduate student who has been identified as worthy of distinction for his or her research project while at the CMU Biological Station on Beaver Island.

Daniel E. & Mildred G. Wujek Scholarship

This scholarship recognizes an outstanding second-year botany or aquatic biology graduate student who has been identified as worthy of distinction. The award may be used for tuition, books, room and board at a biological station, and for research supplies and logistics. This endowment was established by CMU alumni Daniel E. and Mildred G. Wujek. Daniel Wujek was a faculty member in the CMU Department of Biology.

Marian Whitney Summer Graduate Scholarship

Awarded to an outstanding graduate student who is completing a thesis in zoology. The award may be used to support the graduate student in the summer.

Master of Science (M.S.) in Biology

Minimum Totals for Graduation: 30 - 36 hours

The Department of Biology offers both the Plan A and the Plan B Master of Science degrees. Plan A requires completion of six credit hours in BIO 798 (Thesis), one credit hour in BIO 730 (Seminar), 23 hours of graduate course work approved by the student’s advisor and advisory committee, and an oral defense of the thesis. Plan B is recommended to those students preparing for research-oriented careers or for doctoral study.

Plan A

- Required Courses (7-12 hours)
  - BIO 500  Biological Statistics 3(2-2)
  - BIO 501  Evolution 3(3-0)
  - BIO 540  Behavioral Ecology 3(3-0)
  - BIO 630 - Art of Scientific Communication 2(2-2)

- Electives I (13-23 hours)
  - Select course work approved by the student's advisor and advisory committee.

- Electives II (0-10 hours)
  - Additional courses in cognate areas selected in consultation with student's advisor and advisory committee.

- Total: 30 Semester Hours

Plan B

- Required Courses (7-12 hours)
  - BIO 500  Biological Statistics 3(2-2)
  - BIO 501  Evolution 3(3-0)
  - BIO 630 - Art of Scientific Communication 2(2-2)
  - BIO 730 - Seminar 1(1-0)
  - BIO 798 - Thesis 1-6(Spec)

- Electives (8-14 hours)
  - Select course work approved by the student's advisor and advisory committee

- Total: 36 Semester Hours

Required Courses II (9-10 hours)

- BIO 650 - Population Ecology 4(3-2)
- BIO 680 - Conservation Biology 3(3-0)

- Note: A course in community ecology is also required.

- Electives (8-14 hours)
  - Select course work approved by the student's advisor and advisory committee

- Total: 30 Semester Hours

M.S. and Ph.D. in Neuroscience

These degrees are interdisciplinary programs. Please see the index for the page number.

Ph.D. in the Science of Advanced Materials

This degree is an interdisciplinary program. Please see the index for the page number.

Course Descriptions: BIO

BIO 500  Biological Statistics 3(2-2)

An introduction to biological statistics; emphasis on concepts of descriptive statistics and central tendency, inferential statistics, one-way ANOVA and correlation/linear regression. Prerequisites: Twelve (12) hours of biology. Recommended: Math competency equivalent to MTH 130.

BIO 501  Evolution 3(3-0)

Mechanisms of descent with modification are discussed in a framework of microevolution, speciation, and macroevolution. Prerequisites: 9 hours of biology; BIO 326.
BIO 502 Teaching Biology 3(2-3)
Materials, methods, and problems suitable for use in the secondary school; required training course for prospective teachers of biology. Prerequisites: completion of 22 hours of biology; a GPA of 2.7 in biology classes.

BIO 506 Exploring Michigan’s Natural Resources: Environmental and Science Education Opportunities 1-3(Spec)
Students study the complex relationship between humans and the environment through daily field trips to forests, wetlands, rivers, and other habitats. Special notes: This one week, field-oriented course is held in conjunction with the Michigan Department of Environmental Quality as part of the Higgins Lake Environmental School. Students may take this class only one time. Prerequisites: Background in both biology and teaching is required. A foundation in general ecology such as that in a basic biology course, field training, or life experience is necessary to understand the presentations made by the speakers. BIO 101 and BIO 340.

BIO 508 Modern Concepts in Biological Science for Elementary Teachers 3(3-0)
For teachers of grades K-8. Emphasis on biological concepts taught in elementary and middle school; development of a series of laboratory activities as a class project.

BIO 509 Ichthyology 4(3-3)
Anatomy, taxonomy, physiology, natural history, and ecology of fishes with laboratory emphasis on fishes of the Great Lakes region. Prerequisites: BIO 218 or graduate status.

BIO 510 Fisheries Biology 4(3-2)
Analysis of fish populations, management of fisheries resources, and other problems related to freshwater fisheries. Prerequisites: BIO 218.

BIO 511 Aquatic Insects 3(1-4)
Natural history and systematics of freshwater insects. Prerequisite: one year of biology including introductory entomology.

BIO 513 Plant Taxonomy 3(2-3)
Plant taxonomy with attention to plants of the Mount Pleasant area. Prerequisite: 6 hours of botany.

BIO 515 Ornithology 4(2-4)
An introduction to avian biology emphasizing evolution, systematics, and the annual cycle. Identification, song, and general ecology are studied through field trips and laboratory work. Prerequisites: BIO 218 or graduate standing.

BIO 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).

BIO 525 Plant Ecology 4(2-4)
A study of plants emphasizing physical and biotic interrelationships, and factors which govern their distribution. Field work stressed. Prerequisites: BIO 340; a plant identification course highly recommended.

BIO 526 Limnology 3(3-0)
Examination of physical and chemical properties of lake ecosystems, diversity of aquatic organisms, cycling of essential nutrients, and flow of energy through freshwater food webs. Prerequisites: BIO 340. Recommended: CHM 120 or CHM 131 and 132 or CHM 161.

BIO 527 Limnological Methods 2(0-4)
A quantitative examination of the physical, chemical and biological aspects of lake ecosystems. Pre/Co-Requisite: BIO 526.

BIO 531 Aquatic Vascular Plants 3(2-3)
Classification, ecology, and importance of aquatic vascular plants and their role in fisheries problems, wildlife management, and limnology.

BIO 534 Endocrinology 3(2-3)
A study of the ductless glands and their secretions and their influence on the body. Prerequisite: BIO 392.

BIO 536 Histology 3(2-3)
Study of the principal tissues of vertebrates.

BIO 537 Immunology 4(3-3)
A description of the biological and biochemical mechanisms of the immune response. Emphasis will be placed on antibody structure, antigen-antibody interaction, immunobiology, and serology. Prerequisites: BIO 326 and CHM 521. Recommended: A knowledge of aseptic techniques is strongly recommended.

BIO 538 Anatomical Preparations 2(1-3)
Practical techniques involved in the preparation of dry skeletal material, limb-muscle units, differential staining, air-dried viscera, latex injection, plastic embedding and freeze drying of vertebrate specimens. Prerequisites: BIO 101 or BIO 105 and BIO 218 or BIO 337.

BIO 540 Mammalogy 4(3-3)
Survey of evolution, taxonomy, behavioral ecology, physiological ecology, conservation biology, and management as these relate to Class Mammalia. Prerequisites: BIO 218 or graduate status.

BIO 541 Wildlife Biology and Management 4(2-4)
Presents the basic ecological principles and the varied techniques utilized in managing the wildlife resource. Prerequisite: Permission of instructor.

BIO 544 Developmental Biology 4(3-3)
Cellular and molecular mechanisms of embryonic development, emphasizing animals. Prerequisites: BIO 324 or BIO 326; CHM 132 or CHM 161.

BIO 545 Molecular Genetics 4(3-3)
Genetic approach to fundamental biological problems via lecture and laboratory. Covers classical genetic techniques and modern molecular methods, including recombinant DNA technology and functional genomics. Prerequisites: BIO 324, 326; CHM 345

BIO 549 Herpetology 3(2-3)
Survey of extant amphibians and reptiles from standpoint of morphology, behavior, physiology, evolution, and ecology. Local collecting field trips required. Prerequisites: 6 hours of biology.

BIO 550 Transmission Electron Microscope Technique 4(1-6)
Biological specimen preparation and examination. Photographic aspects of electron micrograph production.

BIO 552 Scanning Electron Microscope Technique 4(1-6)
Operation of an SEM including methods of specimen preparation and taking of electron micrographs.
BIO 553  Confocal Microscopy 3(2-3)

BIO 554  Advanced Electron Microscopy 3(1-4)
Routine maintenance, alignment and optimization of a TEM and an SEM for high resolution microscopy. Prerequisites: BIO 550, BIO 552.

BIO 556  Biological EDS Analysis 3(1-4)
Techniques for elemental analysis of biological specimens using an SEM with an energy dispersive spectrometer (EDS). Includes specimen preparation and operation of an EDS system. Prerequisite: BIO 552.

BIO 557  Dendrology 4(2-4)
The biology of woody plants including: identification, anatomy, physiology, systematics, and ecology. Students will learn Michigan native trees and shrubs and select cultivars. Prerequisites: BIO 203.

BIO 558  Natural Resources Management 2(Spec)
Research and management of fisheries, wildlife, forests, and watersheds through field trips and presentations by specialists. Prerequisites: Graduate status or BIO 340.

BIO 559  Field Botany 3(2-3)
The collection, identification, and preparation of herbarium specimens from the local flora. Prerequisites: BIO 203.

BIO 560  Avian Ecology 3(2-3)
Relationships among behavior, community organization and ecology of birds are examined through investigative field work. Prerequisites: BIO 340; BIO 310 recommended.

BIO 561  Wetland Ecology 3(2-3)
Wetland systems classification and characterization in North America; includes ecological evaluation of wetland soil, water, plants, plant communities, animals, animal communities, values, destruction, conservation, management. Prerequisite: BIO 340.

BIO 573  Forest Ecology and Management 3(2-3)
Physical and biological factors affecting the growth, distribution, and development of trees and forests. Outdoor laboratories stress techniques for forest measurement, manipulation, harvest, and regeneration. Prerequisites: BIO 340 and BIO 557.

BIO 576  Animal Cell Culture 4(1-6)
Practical aspects of animal cell culture, involving media preparation, aseptic manipulation of cell culture, cell maintenance, and cell storage. Recommended: BIO 392.

BIO 577  Hematology and Immunohematology 3(2-3)
Concepts of hemopoesis and immunohematology, including cell counts and white cell morphogenesis, physiology and pathophysiology. Clinical techniques and procedures commonly used in hematological evaluation. Prerequisite: BIO 392.

BIO 580  Medical Microbiology 4(2-4)
Focuses on relationships between humans and pathogenic microbes. Covers major groups of medically important microorganisms, pathological consequences of infection, diagnostic procedures, and clinical case problem-solving. Prerequisites: BIO 208 and BIO 392.

BIO 590  Cardiovascular Physiology 3(3-0)
Basic principles of normal mammalian cardiovascular physiology. Prerequisite: BIO 392.

BIO 591  Neurophysiology 3(3-0)
Principles of nervous system function: cytology, electrophysiology, ion channels, membrane potentials, neurochemistry, synaptic function and its modification, sensory physiology. Prerequisites: BIO 392.

BIO 594  Advances In Natural Resources Conservation 2(2-0)
An intensive field or library study after which data are presented orally to the class and in the form of a paper. Prerequisite: BIO 240 or BIO 338.

BIO 597  Special Topics In Biology 1-9(Spec)
Prerequisite: See Class Schedule.

BIO 600  Biological Research Design and Analysis 3(3-0)
An examination of the proper design and statistical analysis needed to solve problems in laboratory and field biology. Prerequisites: BIO 500.

BIO 610  Biology Colloquium 1-9(Spec)
Advanced study of selected subject areas under faculty guidance through lecture and/or seminar colloquia in special competence areas of the graduate faculty. Prerequisite: permission of instructor.

BIO 619  Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

BIO 620  Biology Practicum 1-9(Spec)
Practical experience in methodology and technique in selected fields or laboratory-oriented practica, offered in subjects related to graduate faculty specialties. Prerequisite: permission of instructor.

BIO 626  Topics in Genetics 1-3(Spec)
Various advanced topics in genetics are covered which range from transmission genetics to molecular genetics and evolution. Student participation is expected. May be repeated as offered to a maximum of 3 hours. Prerequisite: BIO 326.

BIO 629  Topics in Eukaryotic Molecular Genetics 1-4(Spec)
Seminar on current research papers in molecular genetics of animals, plants and fungi. Student presentations and discussions expected. May be repeated up to 4 credits. Prerequisites: Admission to the Biology M.S. program.

BIO 630  Art of Scientific Communication 2(2-2)
Exploration of methods involved in the writing of refereed scientific papers, grant proposals, theses and dissertations, and oral or poster presentations at scientific meetings.

BIO 635  Toxicology 3(0)
Study of toxic chemicals, their effects on living organisms, and the metabolism and fate of the chemical in the organism. Prerequisites: BIO 392, CHM 346, CHM 521, CHM 522.

BIO 636  Topics in Botany 1-3(Spec)
Discussion of various advanced topics in current literature. Prerequisites: graduate standing in Biology and a course in botany.

BIO 637  Topics in Immunology 1-3(Spec)
Various topics in immunology are covered which range from immunogenetics to molecular immunology and evolution. May be repeated as offered to a maximum of 3 hours. Prerequisites: BIO 537.

BIO 640  Quantitative Ecology 3(3-0)
Application of quantitative methods in ecological research. Prerequisite: BIO 340; recommend one course in statistics.
BIO 648 Field Methods in Ethology 3(2-3)
Research methods for the study of animal behavior in the field. Topics include observation data acquisition and analysis, and hypothesis formulation and testing. Prerequisite: graduate standing in biology or psychology.

BIO 650 Population Ecology 4(3-2)
Theoretical and realistic considerations of mechanisms affecting dynamics of plant and animal populations.

BIO 651 Topics in Ethology 1-3(Spec)
Discussion of various ethological topics from current literature. May be repeated as offered to a maximum of 3 hours. Prerequisite: BIO 518 and permission of instructor.

BIO 652 Behavioral Ecology 3(2-3)
An integration of behavior and ecology from the standpoint of species diversity, habitat utilization, reproduction, and competition. Field observations to illustrate principles of adaptation through behavioral channels. Prerequisites: BIO 340 and BIO 518.

BIO 653 Stream Ecology 3(2-3)
Structure and function of stream ecosystems with emphasis on biological processes. Special attention will be given to recent developments in the field. Prerequisites: BIO 340 and BIO 526.

BIO 656 Fish Ecology 2(2-0)
A study of the ecological relationships of fishes. Prerequisites: BIO 509 or graduate status.

BIO 657 Fisheries Management 2(2-0)
A study of specific habitats as related to fisheries management, habitat alteration problems, alternative management solutions, special techniques, and specific management topics. Prerequisites: BIO 510 or graduate status.

BIO 658 Zooplankton Biology 3(2-3)
An examination of the taxonomy, physiology, behavior and ecology of planktonic animals. Prerequisites: BIO 218, BIO 340.

BIO 680 Conservation Biology 3(3-0)
Addresses dynamics and problems of perturbed species, communities and ecosystems and practical aspects of implementing protection. Prerequisites: BIO 340 and BIO 326.

BIO 690 Conservation Genetics 4(3-3)
Students learn technical and theoretical genetic methods used in conservation while generating, analyzing and interpreting data to generate sound scientific conclusions.

BIO 691 Landscape Ecology 4(3-3)
Technical and theoretical foundations of landscape ecology as applied to conservation biology, including use of GIS tools. Prerequisites: Completion of, or concurrent enrollment in, BIO 680; BIO 500 or STA 382; GEO 203, 303.

BIO 692 Topics in Physiology 1-4(Spec)
Seminars, technique courses or lecture courses on new frontiers in physiology or of special interest. May be repeated for a maximum of 4 hours. Prerequisites: BIO 392.

BIO 695 Graduate Internship in Biology 1-6(Spec)
Prerequisite: A graduate internship agreement must be signed and on file in the Biology office or with the Director of the Biological Station at least four weeks prior to enrollment.

BIO 700 Research in Biology 2-4(Spec)
Acquaints the student with research techniques. Prerequisite: Registration requires the approval of the department chairperson. CR/NC only.

BIO 798 Thesis 1-6(Spec)
An acceptable thesis may be presented for 6 hours of credit. Prerequisite: Registration requires a Plan A thesis prospectus on file in the biology office and approval of the department chairperson. CR/NC only.

Course Descriptions: MAR
MAR 503 Marine Invertebrate Zoology 6(Spec)
Structure, classification, phyllogenetic 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(SPEC)
Prerequisites: permission of instructor.
School of Broadcast and Cinematic Arts (BCA)

College of Communication and Fine Arts

Peter B. Orlik, Director
340 Moore Hall, (989)774-3851.

William Anderson, Ed.D., Northern Illinois University; Writing, Promotion, Public Relations
Edward Christian, M.A., Central Michigan University; Media Management and Sales
Kevin Corbett, Ph.D., Bowling Green State University; Film Studies, Scriptwriting
Jerome Henderson, Ed.D., University of Pittsburgh; Sales, Audio Production
Kenneth Jurkiewicz, Ph.D., University of Detroit; Film History, Theory, and Criticism
Peter B. Orlik, Ph.D., (School Director) Wayne State University; Writing, Criticism
W. Lawrence Patrick, Ph.D., Ohio University; J.D., Georgetown; Media Management, Regulation, and Economics
Heather Polinsky, Ph.D., Michigan State University; Audio Production, Research Methods, Radio Operations
Jeffrey Smith, M.A., (Internship Supervisor) Central Michigan University; Electronic Media Law
Trey Stohlman, M.A., Central Michigan University; Writing, Internet Applications
Curt Sutterfield, M.A., Ball State University; Electronic Journalism, Performance
William R. Sykes, M.A., Central Michigan University; Electronic Journalism, Sports Broadcasting
Ben Tigner, M.S.A., Central Michigan University; Video and Multimedia Production
Benjamin Urish, Ph.D., Bowling Green State University; Media History and Criticism
Patty Williamson, (Graduate Coordinator) Ph.D., Michigan State University; Criticism, Research, Programming

Facilities

The School of BCA oversees WMHW-FM, a 13,000-watt HD FM station which broadcasts 365 days a year; two television studios servicing cable station MHTV; two advanced audio studios; video-editing suites; a computerized newswire from which News Central, the area’s only locally focused television newscast, is produced; and an online production suite for M2D2, the school’s web publisher. The school also maintains its own recording studio, Moore Media Records, and oversees CMU’s Film Society.

Graduate Assistantships

Broadcast and Cinematic Arts graduate assistants aid in teaching basic audio, video, and news production sections, and film survey courses, as well as performing other online and administrative duties as determined by the School Director. For a graduate assistantship application, contact the director at 340 Moore Hall, CMU, Mount Pleasant, MI 48859.

Master of Arts (M.A.) in Broadcast and Cinematic Arts

Minimum Totals for Graduation: 30-33 hours

The Master of Arts program in Broadcast and Cinematic Arts offers opportunities for the industry professional seeking new skills, as well as for the recent undergraduate desiring to pursue advanced study in electronic media or film theory and criticism. Students interested in the electronic media studies, electronic media management, or electronic media production concentrations should possess a professional or academic background in mass communication. Students interested in the film theory and criticism concentration should have a background in mass communication, speech, or literary studies.

Graduate students can complete coursework in formal classroom, seminar, and independent study settings, leading to an emphasis in:

1. electronic media studies,
2. electronic media management,
3. film theory and criticism, or
4. electronic media production.

Classes are taught by a faculty possessing diverse professional and theoretical backgrounds. In addition, many students supplement their studies with offerings from Interpersonal and Public Communication, Political Science, English, and the College of Business Administration. One-on-one advising and personalized course study with members of the graduate faculty make the Broadcast and Cinematic Arts M.A. program one of the most attractive in the midwest.

For an application, catalog, and graduate assistant information contact the Graduate Coordinator-School of Broadcast & Cinematic Arts, 340 Moore Hall, Central Michigan University, Mount Pleasant, MI 48859 or visit the School website: www.bca.cmich.edu.

Admission Requirements, Retention & Termination Standards

To receive regular admission to the program, a student must attain an undergraduate grade point average of 2.7 on a 4.0 scale. Additional preparatory course work or particular courses may be required.

International applicants must present a TOEFL score of at least 600 (250 CBT).

Degree Requirements

Select one of the following options:

Broadcast & Cinematic Arts: Electronic Media Studies

In consultation with the School of BCA graduate advisor, M.A. students may choose Plan A or B. Plan A consists of course work, thesis (6 hours), and oral defense of the thesis. The oral examination may also include subject matter related to course work.

Students on Plan B must satisfactorily complete an independent research project (3 hours) and an oral examination related to the independent research and course work.

Required Courses I (9 hours)

BCA 601 · Theories of Mass Communication 3(3-0)
BCA 602 · Mass Communication Research Methods 3(3-0)
BCA 611 · Telecommunications Media Policy 3(3-0)

Required Courses II (3-6 hours)

Select one of the following:

BCA 730 · Plan B Project Research 3(3-0)
BCA 798 · Thesis 1-6(Spec)

Minimum Totals for Graduation: 30-33 hours

The Master of Arts program in Broadcast and Cinematic Arts offers opportunities for the industry professional seeking new skills, as well as for the recent undergraduate desiring to pursue advanced study in electronic media or film theory and criticism. Students interested in the electronic media studies, electronic media management, or electronic media production concentrations should possess a professional or academic background in mass communication. Students interested in the film theory and criticism concentration should have a background in mass communication, speech, or literary studies.

Graduate students can complete coursework in formal classroom, seminar, and independent study settings, leading to an emphasis in:

1. electronic media studies,
2. electronic media management,
3. film theory and criticism, or
4. electronic media production.

Classes are taught by a faculty possessing diverse professional and theoretical backgrounds. In addition, many students supplement their studies with offerings from Interpersonal and Public Communication, Political Science, English, and the College of Business Administration. One-on-one advising and personalized course study with members of the graduate faculty make the Broadcast and Cinematic Arts M.A. program one of the most attractive in the midwest.

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To receive regular admission to the program, a student must attain an undergraduate grade point average of 2.7 on a 4.0 scale. Additional preparatory course work or particular courses may be required.

International applicants must present a TOEFL score of at least 600 (250 CBT).

Degree Requirements

Select one of the following options:

Broadcast & Cinematic Arts: Electronic Media Studies

In consultation with the School of BCA graduate advisor, M.A. students may choose Plan A or B. Plan A consists of course work, thesis (6 hours), and oral defense of the thesis. The oral examination may also include subject matter related to course work.

Students on Plan B must satisfactorily complete an independent research project (3 hours) and an oral examination related to the independent research and course work.

Required Courses I (9 hours)

BCA 601 · Theories of Mass Communication 3(3-0)
BCA 602 · Mass Communication Research Methods 3(3-0)
BCA 611 · Telecommunications Media Policy 3(3-0)

Required Courses II (3-6 hours)

Select one of the following:

BCA 730 · Plan B Project Research 3(3-0)
BCA 798 · Thesis 1-6(Spec)
Required Courses II (3-6 hours)
Select one of the following:
BCA 730 - Plan B Project Research 3(3-0)
BCA 798 - Thesis 1-6(Spec)
Electives (12-15 hours)
Select from the following:
BCA 503 - Critiquing Mass Media 3(3-0)
BCA 508 - Screenwriting for Cinematic Narrative 3(3-0)
BCA 520 - Special Topics in Mass Media 1-9(Spec)
BCA 521 - Electronic Cinematography 3(2-2)
BCA 522 - Multimedia Audio Post-Production 3(2-2)
BCA 525 - Film Genre Study 3-9(Spec)
BCA 527 - Film Directors 3-9(Spec)
BCA 566 - Hockey's Cinematic Depictions 1(1-0)
BCA 611 - Telecommunications Media Policy 3(3-0)
BCA 612 - Broadcasting/Cable Seminar 3(3-0)
BCA 619 - Continuing Registration for Final Research Project 1(1-0)
BCA 625 - Film and Video Theory and Criticism 3(3-0)
BCA 720 - Special Topics in Mass Media 3-9(Spec)
BCA 729 - Advanced Independent Study 1-9(Spec)
Note: Students may take a maximum of 9 hours outside of BCA.
Total: 30 semester hours

Broadcast & Cinematic Arts: Electronic Media Management

In consultation with the School of BCA graduate advisor, M.A. students may choose Plan A or B. Plan A consists of course work, thesis (6 hours), and oral defense of the thesis. The oral examination may also include subject matter related to course work.

Students on Plan B must satisfactorily complete an independent research project (3 hours) and an oral examination related to the independent research and course work.

Required Courses I (15 hours)
BCA 528 - History and Analysis of Nonfiction Film 3(2-2)
BCA 531 - Industrial and Educational Video/Media Production 3(2-2)
BCA 532 - Advanced Video/Multimedia Post-Production 3(2-2)
BCA 560 - Radio Operations I 3(1-4)
BCA 561 - Radio Operations II 3(1-4)
BCA 566 - Hockey's Cinematic Depictions 1(1-0)
BCA 612 - Broadcasting/Cable Seminar 3(3-0)
BCA 613 - Electronic Media and Convergence 3(3-0)
BCA 619 - Continuing Registration for Final Research Project 1(1-0)
BCA 625 - Film and Video Theory and Criticism 3(3-0)
BCA 720 - Special Topics in Mass Media 3-9(Spec)
BCA 729 - Advanced Independent Study 1-9(Spec)
Note: Students may take a maximum of 9 hours outside of BCA.
Total: 30 semester hours

Broadcast & Cinematic Arts: Film Theory & Criticism

In consultation with the School of BCA graduate advisor, M.A. students may choose Plan A or B. Plan A consists of course work, thesis (6 hours), and oral defense of the thesis. The oral examination may also include subject matter related to course work.

Students on Plan B must satisfactorily complete an independent research project (3 hours) and an oral examination related to the independent research and course work.

Required Courses I (12 hours)
BCA 528 - History and Analysis of Nonfiction Film 3(2-2)
BCA 601 - Theories of Mass Communication 3(3-0)
BAC 602 - Mass Communication Research Methods 3(3-0)
BCA 625 - Film and Video Theory and Criticism 3(3-0)
BCA 612 - Broadcasting/Cable Seminar 3(3-0)
BCA 613 - Electronic Media and Convergence 3(3-0)
BCA 729 - Advanced Independent Study 1-9(Spec)
Total: 30 semester hours

Electives (6-9 hours)
Select from the following:
BCA 503 - Critiquing Mass Media 3(3-0)
BCA 510 - Electronic Media Law 3(3-0)
BCA 511 - Electronic Media Sales 3(3-0)
BCA 512 - Electronic Media Promotion 3(3-0)
BCA 560 - Radio Operations I 3(1-4)
BCA 561 - Radio Operations II 3(1-4)
BCA 612 - Broadcasting/Cable Seminar 3(3-0)
BCA 613 - Electronic Media and Convergence 3(3-0)
BCA 729 - Advanced Independent Study 1-9(Spec)
Total: 30 semester hours

(continued)
Broadcast & Cinematic Arts: Electronic Media Production

Students on Plan B must satisfactorily complete an independent research project (3 hours) and an oral examination related to the independent research and course work.

Required Courses I (15 hours)
BCA 601 - Theories of Mass Communication 3(3-0)
BCA 602 - Mass Communication Research Methods 3(3-0)
BCA 625 - Film and Video Theory and Criticism 3(3-0)
BCA 729 - Advanced Independent Study 1-9(Spec)

Note: 3 credits of BCA 729 are required for this area of emphasis.

Required Courses II (3 hours)
BCA 730 - Plan B Project Research 3(3-0)

Required Courses III (3 hours)
Select one of the following:
BCA 521 - Electronic Cinematography 3(2-2)
BCA 522 - Multimedia Audio Post-Production 3(2-2)
BCA 542 - Contemporary Recording & Mixing 3(2-2)

Electives I (9-12 hours)
BCA 508 - Screenwriting for Cinematic Narrative 3(3-0)
BCA 521 - Electronic Cinematography 3(2-2)
BCA 522 - Multimedia Audio Post-Production 3(2-2)
BCA 529 - Internship in Electronic Media-Film 2-6(Spec)
BCA 531 - Industrial and Educational Video/Media Production 3(2-2)
BCA 532 - Advanced Video/Multimedia Post-Production 3(2-2)
BCA 542 - Contemporary Recording & Mixing 3(2-2)
BCA 560 - Radio Operations I 3(1-4)
BCA 561 - Radio Operations II 3(1-4)
BCA 613 - Electronic Media and Convergence 3(3-0)
BCA 729 - Advanced Independent Study 1-9(Spec)

Note: Student may take up to 3 additional credits of BCA 729 as an elective.

Electives II (0-3 hours)
BCA 515 - Sports Broadcasting 3(2-2)
BCA 516 - Broadcast and Cable Management 3(3-0)

Course Descriptions: BCA

BCA 503 Critiquing Mass Media 3(3-0)
Critical appraisal of mass communications systems and their content with special attention to the electronic media’s aesthetic properties and economic, political, and societal effects. Prerequisites: BCA 210 with a grade of C or better.

BCA 508 Screenwriting for Cinematic Narrative 3(3-0)
Techniques, formatting styles and aesthetic strategies for writing and analyzing short- and feature-length cinematic narrative screenplays, emphasizing characterization, plot and structure. Prerequisites: BCA 311 with a grade of C or better; limited to juniors or above; or graduate standing.

BCA 510 Electronic Media Law 3(3-0)
Regulation of the electronic media. Examination of legal and administrative materials and cases. Prerequisites: BCA 310 with a grade of “C” or better; limited to juniors and above.

BCA 511 Electronic Media Sales 3(3-0)
Organizational systems and processes of sales in electronic media. Emphasis on techniques found most reliable in modern sales practices in radio, television, internet and cable. Prerequisite: BCA 210 with a grade of C or better; limited to juniors or above.

BCA 512 Electronic Media Promotion 3(3-0)
Tools and techniques of promotion for radio, television, and cable. Emphasis on media needs, community relations, and problems unique to the electronic media promoter. Prerequisites: BCA 210 with a C or better; BCA 311; limited to juniors or above; or graduate standing.

BCA 515 Sports Broadcasting 3(2-2)
Overview of the sports broadcasting industry. Emphasis on tools and techniques of live-event production and electronic sports reporting. Prerequisites: BCA222 or BCA223; BCA210, BCA317 each with “C” or better.

BCA 516 Broadcast and Cable Management 3(3-0)
Management in contemporary telecommunications settings. Prerequisite: Limited to juniors or above; permission of instructor.

BCA 517 Advanced Audio and Video Performance 3(2-2)
Study and intensive practice in complex media performance situations. Special emphasis on realistic laboratory experience designed to explore the professional requirements of electronic media talent. Prerequisites: BCA 317 with a grade of “C” or better.

BCA 518 Advanced Radio and Television News 3(2-2)
Techniques of news gathering, reporting, and interviewing for electronic media. Prerequisite: BCA 318 or JRN 216 with grade of “C” or better, limited to juniors or above.

BCA 519 Electronic Media Programming 3(2-2)
Examination of broadcast/cable programming in terms of recent trends and strategies. Extensive attention to the role and tasks of the program director as manager. Prerequisite: 10 hours in BCA; limited to juniors or above.

BCA 520 Special Topics in Mass Media 1-9(Spec)
Current topics for each semester listed in the Schedule of Classes. Repeatable up to 9 hours when content does not duplicate previous special topics studies. Prerequisite: Limited to juniors or above.
BCA 521  Electronic Cinematography 3(2-2)
Theory and practice in the production of short and long form narrative video, with emphasis on the aesthetic aspects of lighting, direction and editing. Prerequisites: BCA 223, BCA 422 with a grade of “C” or better.

BCA 522  Multimedia Audio Post-Production 3(2-2)
Advanced recording, editing, sweetening, synchronizing and mixing of audio for selected electronic broadcast and multimedia applications. Prerequisites: BCA 223, BCA 421 with a grade of “C” or better in each.

BCA 524  Producing Television News 3(1-4)
A practical approach to producing news. Encompasses gathering, writing, producing, and directing news programming over local cable outlets. Prerequisite: BCA 318 or BCA 223; limited to juniors or above.

BCA 525  Film Genre Study 3-9(Spec)
In-depth examination of selected film genres, themes, and trends. Repeatable up to 9 hours when content previously studied is not duplicated. Prerequisite: Limited to juniors or above.

BCA 527  Film Directors 3-9(Spec)
In-depth examination of selected film directors with focus on their themes, visual style, and lives. Critical analysis of films viewed is emphasized. Repeatable up to 9 hours when content does not duplicate previous special topics studies. Prerequisites: BCA 288; limited to juniors or above.

BCA 528  History and Analysis of Nonfiction Film 3(2-2)
History and techniques of the nonfiction film and video. Historical and contemporary examples including news reels, propaganda films, and television documentaries.

BCA 529  Internship in Electronic Media-Film 2-6(Spec)
Directed work experience at participating media venues. May count 6 hours maximum toward a major, 3 hours toward a minor. Minimum 2.5 GPA required. Prerequisite: prior written approval of BCA Intern Director; limited to juniors or above; open only to signed BCA majors or minors.

BCA 531  Industrial and Educational Video/Media Production 3(2-2)
Lecture and intensive hands-on theory, design and production of video and interactive programming specifically for and within institutional/corporate settings. Prerequisites: BCA 223, BCA 422.

BCA 532  Advanced Video/Multimedia Post-Production 3(2-2)
Lecture and intensive hands-on theory, design and production of multimedia/interactive digital video, with emphasis on advanced post-production technologies and techniques. Prerequisites: BCA 223, BCA 422 with a grade of “C” or better in each.

BCA 542  Contemporary Recording & Mixing 3(2-2)
Advanced recording, mixing and mastering techniques of contemporary music for multimedia distribution. Summer session only. Laboratory hours arranged with instructor. Prerequisites: BCA 421 with a B or better; or graduate standing.

BCA 560  Radio Operations I 3(1-4)
Preparation and performance in radio broadcast practices, emphasizing daily operations, writing, logging, and production procedures. Summer Session I only. Laboratory hours arranged with instructor. Prerequisites: Minimum 2.25 GPA, BCA 222 or BCA 317.

BCA 561  Radio Operations II 3(1-4)
Radio broadcast executive operations, including supervisory and management parameters, goal-setting, and evaluation processes. Summer Session II only. Laboratory hours arranged with instructor. Prerequisites: Minimum 2.25 GPA; BCA 560; BCA 222 or BCA 317.

BCA 566  Hockey’s Cinematic Depictions 1(1-0)
Focused practice in media criticism through analysis of the sport, business and aesthetics of hockey as depicted in benchmark fiction and non-fiction films. Prerequisites: ENG 201; completion of oral English competency requirement.

BCA 601  Theories of Mass Communication 3(3-0)
Examination of theories and application of conceptual frameworks to the study of mass communication. Prerequisites: Admission to the MA program in Broadcast & Cinematic Arts.

BCA 602  Mass Communication Research Methods 3(3-0)
Examination of quantitative and qualitative research methods applied to the study of mass communication. Prerequisites: BCA 601

BCA 611  Telecommunications Media Policy 3(3-0)
Examination of media policy and its impact on the structure and functions of the American electronic media system. Consideration of trends in policy and future impact.

BCA 612  Broadcasting/Cable Seminar 3(3-0)
Directed readings and discussion of contemporary issues in broadcasting, cablecasting, and electronic media. Prerequisites: BCA 601

BCA 613  Electronic Media and Convergence 3(3-0)
Social and legal issues related to the transformations of electronic media environments from technological convergence. Prerequisites: Graduate standing. Recommended: BCA 601.

BCA 619  Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

BCA 625  Film and Video Theory and Criticism 3(3-0)
Study of the major theories of film and video emphasizing the reflective, transformational, and semiotic schools. Survey of various critical modes. Prerequisites: BCA 288.

BCA 700  Plan B Project Research 3(3-0)
Advanced research for Plan B project. No more than nine credits may be earned in BCA 729 and BCA 730 combined. CR/NC only. Prerequisites: BCA 602; Consent of advisor and committee members supervising Plan B project.

BCA 798  Thesis 1-6(Spec)
CR/NC only. Prerequisites: BCA 602; Permission of Graduate Advisor
College of Business Administration (MBA, BUS)

College of Business Administration

Director, MBA Program
250 ABSC - Grawn Hall
(989) 774-3150

Departments
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

Master of Business Administration (MBA)

Minimum Totals for Graduation: 30 - 48 hours

The MBA program's mission is to prepare graduate business students for leadership positions in today's global economy. The program features an active student learning environment with a curriculum that meets the needs of both part-time and full-time students all over the world. Accredited by AACSB International - The Association to Advance Collegiate Schools of Business, the program is designed to meet the needs of three groups of people:

1. individuals whose business careers have focused on specialized areas and who seek to develop a more general management perspective in anticipation of further advancement;
2. individuals with previous education and work experience in areas other than business who seek a general business education that will allow them to move into management positions; and
3. individuals with limited work experience who plan to use the MBA as a foundation from which to begin their careers.

In existence for over 44 years, the curriculum receives constant review to keep pace with emerging business trends. The graduate business faculty are not only well educated but also have substantial business experience. The faculty are committed to a program that emphasizes:

1. integration of the functional core areas of business
2. providing the perspective required to manage in a global world
3. awareness of ethical issues and standards and their influence on business decisions
4. ability to work in teams through group projects and collaborative learning
5. enhancement of oral and written communication skills integrating the most current technology
6. application of theory and concepts to the solution of business problems through the use of cases, business exports, consulting projects, simulations and the study of real world business practice
7. integration of business concepts in an applied project

Admission Requirements, Retention and Termination Standards

To be considered for admission to the MBA program, a student must first be admitted to the College of Graduate Studies. The Application for Admission should be sent to the College of Graduate Studies at least six weeks prior to the beginning of the first semester of anticipated enrollment in classes.

A Graduate Management Admission Test (GMAT) score must be on file in the College of Business Administration before an application for admission to the MBA program can be considered. Applicants lacking a GMAT score are granted non-degree admission to the College of Graduate Studies. A student with non-degree admission may register for prerequisite courses only. To be admitted, students must have at least 1,050 points based on the formula: 200 times the undergraduate GPA plus a minimum GMAT score of 450. Applicants are expected to reflect the current MBA student body, which possesses an average formula score of more than 1,150. International students must submit a GMAT score and submit a score of 213 (550 on paper-based test or 79 on Internet-based test) or higher on the Test of English as Foreign Language (TOEFL).

Regular Admission

To be granted regular admission to the Master of Business Administration program, a student must meet the university requirements for admission to the College of Graduate Studies, possess an acceptable GMAT score and undergraduate GPA, and have successfully completed the prerequisite courses or equivalent.

Conditional Admission

Applicants who have satisfied the GMAT requirement, but are lacking only prerequisites are allowed to enroll in a maximum of 12 credit hours of MBA degree requirements while completing prerequisite requirements.

Any exceptions to the above admission requirements must be approved by the Graduate Studies Committee of the College of Business Administration.

Degree Requirements

Degree Requirements I (0-18 hours)

Foundation Courses (Prerequisites):

Applicants must present evidence of a working knowledge of advanced business applications in spreadsheet, database, and presentation graphics. In addition, the following courses or equivalents may be completed before or after admission to the MBA program.

MBA 501 - Professional Business Communications 2(2-0)
MBA 504 - Using Financial Accounting Information 2(2-0)
MBA 505 - The Economic Environment of Business 2(2-0)
MBA 506 - Legal Environment of Business 2(2-0)
MBA 507 - Introduction to Marketing Management 2(2-0)
MBA 508 - Management and Organization 2(2-0)
MBA 509 - Production/Operations Management 2(2-0)
MBA 510 - Financial Management and Analysis 2(2-0)
MBA 511 - Statistics for Managerial Decisions 2(2-0)

Degree Requirements II (22 hours)

MBA Program Core Courses:

MBA 609 - Information Systems Management 2(2-0)
MBA 619 - Accounting Information for Managers 2(2-0)
MBA 629 - Managing Behavioral Change 2(2-0)
MBA 639 - Quantitative Applications for Managers 2(2-0)
MBA 649 - Marketing Management 2(2-0)
MBA 659 - Managing in a Global Economy 2(2-0)
MBA 669 - Financial Decision-Making 2(2-0)
MBA 679 - Economic Analysis for Managers 2(2-0)
MBA 689 - Strategic Management 2(2-0)
MBA 699 - The MBA Project 4(4-0)
Plan B Requirement - The Plan B requirement is fulfilled through successful completion of MBA 699 The MBA Project.

Degree Requirements III (8 hours)

Areas of Concentration:
A minimum of eight (8) hours of planned study in one of the following areas, to be approved by a graduate advisor:
- Accounting
- Business Economics
- Consulting
- Finance
- General Business
- International Business
- Management Information Systems
- Marketing
- Human Resource Management

Note: No more than two 500-level courses may be used in any concentration

Minimum 30 Total Hours for MBA Degree
(30-48 hours, with prerequisites)

Course Descriptions: 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 and prior knowledge of spreadsheet software; admission to the MBA program OR both graduate status and permission of the MBA director.

MBA 501 Presentation Graphics Applications in Business 1(1-0)
Application of presentation graphics software tools in preparing and delivering professional management briefings that provide information which supports the solution of common business problems. Course may not be included on any graduate degree program. Prerequisites: computer literacy as demonstrated by BIS 104, CPS 100 and prior knowledge of presentation graphics software; admission to the MBA program OR both graduate status and permission of the MBA director.

MBA 502 Database Applications in Business 1(1-0)
Application of a database management program to the solution of common business problems including sales and inventory management for preparing information to support decision making. Course may not be included on any graduate degree program. Prerequisites: computer literacy as demonstrated by BIS 104, CPS 100 and prior knowledge of database management software; admission to the MBA program OR both graduate status and permission of the MBA director.

MBA 503 Professional Business Communications 2(2-0)
Developing professional business communications skills within a team environment. Emphasis on both written and oral communications utilizing current technologies. Prerequisites: admission to the MBA program, or permission the MBA director.

MBA 504 Using Financial Accounting Information 2(2-0)
Introduces use of financial accounting income statements, balance sheets, and statements of cash flow in managerial planning, control, and evaluation. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 505 The Economic Environment of Business 2(2-0)
Provides the economic tools necessary for graduate study in business: demand and supply, elasticity, costs and production, competitive and monopolistic markets, macroeconomics, and international trade. Not open to economics graduate students. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 506 Legal Environment of Business 2(2-0)
Basic concepts concerning the interrelationships of business and its external environments. Managerial participation in and response to public policy issues and their resolutions. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 507 Introduction to Marketing Management 2(2-0)
An introduction to the marketing management process including the marketing environment, buyer behavior, marketing analysis, segmentation, marketing strategy, the marketing mix, and social/ethical issues. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 508 Management and Organization 2(2-0)
Introduction to the internal structure, processes, and control of organizations. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 509 Production/Operations Management 2(2-0)
Concepts and applications of production and operations management in business and industry. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 510 Financial Management and Analysis 2(2-0)
An introduction to basic finance principles and tools including the time value of money, risk and return, capital budgeting and the interpretation of financial statements. Prerequisites: admission to the MBA program, or permission of the MBA director.

MBA 511 Statistics for Managerial Decisions 2(2-0)
An introduction to descriptive and inferential statistics in a business decision context. Applications of various t-tests, ANOVA, multiple regression, and cross-tabulation are emphasized. Prerequisites: admission to the MBA program, or graduate status and permission of the MBA director.

MBA 506 Information Systems Management 2(2-0)
Examination of issues involved in managing and deploying information systems in organizations with an emphasis on technologies and human factors that support competitive strategies. This course is approved for offering in a distance learning format. Prerequisites: knowledge of advanced business applications in spreadsheets, database, and presentation graphics software, admission to the MBA program or permission of the MBA director.

MBA 618 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

MBA 619 Accounting Information for Managers 2(2-0)
Investigates the central role accounting systems play in managerial evaluation, control, and planning. This course is approved for offering in a distance learning format. Prerequisite: Admission to the MBA program or permission of the MBA director. Recommended: MBA 504, MBA 510, and BUS 600.
MBA 629 Managing Behavioral Change 2(2-0)
A study of organization culture and behavior which emphasizes the importance of and need for influencing individual and small group behavior in contemporary organizational settings. This course is approved for offering in a distance learning format. Prerequisite: Admission to the MBA program or permission of the MBA director. Recommended: MBA 508.

MBA 639 Quantitative Applications for Managers 2(2-0)
The application of quantitative methods to managerial decisions. Applications include optimization, modeling, and simulation, and focus on using the computer to support decision making. This course is approved for offering in a distance learning format. Prerequisite: Admission to the MBA program or permission of the MBA director. Recommended: MBA 504, BUS 600, and knowledge of advanced business applications in spreadsheet software.

MBA 649 Marketing Management 2(2-0)
Dynamic nature and managerial aspects of marketing. Formulation of analytical decisions concerning marketing strategy. This course is approved for offering in a distance learning format. Prerequisites: Admission to the MBA program or permission of the MBA director. Recommended: MBA 503 and MBA 507.

MBA 659 Managing in a Global Economy 2(2-0)
Covers challenges of globalization of product- and factor-markets, managing subsidiaries and influencing affiliates in diverse cultures, in industrialized and emerging economics. This course is approved for offering in a distance learning format. Prerequisite: Admission to the MBA program or permission of the MBA director. Recommended: MBA 508.

MBA 669 Financial Decision-Making 2(2-0)
This course provides a framework for the analysis of the investment and financing decisions of the firm and an understanding of how to apply finance theory to practical situations. This course is approved for offering in a distance learning format. Prerequisites: MBA 504, MBA 510, and BUS 600. Admission to the MBA program or permission of the MBA director.

MBA 679 Economic Analysis for Managers 2(2-0)
Application of economics and statistics to business decisions. Integration of theory with issues from Business Week and The Wall Street Journal. Development of business regression models. Recommended: ECO 600 and BUS 600. Prerequisite: Admission to the MBA program or permission of the MBA director. This course is approved for offering in a distance learning format.

MBA 689 Strategic Management 2(2-0)
Focuses on developing and implementing business strategies for a competitive business. The course is approved for offering in a distance learning format.

MBA 697 Special Topics 1-6(Spec)
Special topics of interest not included in courses currently listed in the Bulletin. Prerequisites: regular admission to the MBA program or permission of the MBA director.

MBA 699 The MBA Project 4(4-0)
The capstone experience where skills and competencies are applied to actual business problems. Students develop cross-functional business solutions with the guidance of a faculty committee. CR/NC only. Prerequisites: completion of 20 hours of the MBA program, including at least seven MBA-designated core courses at the 600-level. Admission to the MBA program or permission of the MBA director. This course is approved for offering in a distance learning format.

Course Descriptions: BUS

BUS 619 Voice of the Customer 3(3-0)
Examination of the marketing research methodologies utilized to capture the “voice of the customer” in a competitive marketplace. This course is approved for offering in a distance learning format. Prerequisites: Permission of the MBA director; graduate status.

BUS 629 Corporate Governance & Social Responsibility 3(3-0)
The study of corporate governance and social responsibility within the contemporary business world. This course is approved for offering in a distance learning format. Prerequisites: Permission of the MBA director and graduate status.

BUS 639 Process Improvement 3(3-0)
Process improvement as it relates to organizations within the contemporary business world. Methodologies, tools and techniques used for process improvement will be examined. This course is approved for offering in a distance learning format. Prerequisites: Permission of the MBA director; graduate status.

BUS 691 Management Consulting: Client Relations 2(2-0)
Development and maintenance of relationships between management consultants and their clients. Emphasis on change management principles. Prerequisites: Admission to Graduate Studies.

BUS 692 Management Consulting: Diagnosis 2(2-0)
Review of diagnostic techniques to assess organizational problems. Qualitative research and analytical techniques are also studied. Prerequisites: BUS 691; admission to Graduate Studies.

BUS 693 Management Consulting: Measurement 2(2-0)
Theory and managerial tools guiding the consultant to measure and understand complex problems within organizations. Prerequisites: BUS 692; admission to Graduate Studies.

BUS 694 Management Consulting: Implementation 2(2-0)
Implementation of the change strategy in the organization. Development of a framework for the assessment of the effectiveness of the change mechanism. Prerequisites: BUS 693; admission to Graduate Studies.

BUS 697 Special Topics in Business 1-12(Spec)
Special topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisites: Admission to MBA program, permission of the MBA director, and graduate status.

BUS 698 mySAP ERP Integration of Business Processes 4(4-0)
Examination of how business processes interact with mySAP ERP in the SAP modules including the analytical and reporting functions in mySAP ERP. CR/NC only. Prerequisites: An SAP course taken at CMU or permission of the MBA director.
Department of Business Information Systems (BIS)

College of Business Administration

Karl Smart, Chairperson
305 Grawn Hall, (989) 774-3554

Frank J. C. Andera, Ed.D., Business Communication, Information Systems Research

James J. Cappel, Ph.D., Management Information Systems, Research

Roger L. Hayen, D.B.A., Management Information Systems, Research

Nancy H2icks, Ph.D., Business Teacher Education, Research

Zhenyu Huang, Ph.D., Management Information Systems, Research

Mark I. Hwang, Ph.D., Management Information Systems, Research

Anil Kumar, Ph.D., Management Information Systems, Research

James Melton, Ph.D., Business Communication

Robert Miller, Ph.D., Management Information Systems Research

James P. Scott, Ph.D., Management Information Systems Research

Karl Smart, Ph.D., Business Communications, Business Teacher Education, Research

Business Education emphasis is available in the Master of Arts in Secondary Education Degree (Page 201) and consists of 15 hours (refer to page 74 for a list of the Business Education graduate courses offered for this degree and additional program information).

Master of Science (M.S.) in Information Systems

Minimum Totals for Graduation: 30 hours

The Program

The Master of Science (M.S.) in Information Systems is designed for the student who does not have a bachelor's degree in information systems or related computing field. Graduates will be prepared for systems positions in business and industry, including such areas as health care administration and law enforcement, and for teaching positions in community and four year colleges.

Students are required to complete a minimum of 30 graduate credits, pass a comprehensive examination, and satisfy a research requirement through completion of a thesis (Plan A) or an applied project (Plan B).

Admission Requirements, Retention & Termination Standards

To be considered for regular admission, an applicant must have:
1. a bachelor's degree from an accredited institution with a 2.7 GPA, or an undergraduate grade point average of at least 3.0 in the last two years of study,
2. completed four prerequisite courses with no course grade lower than "C".

The prerequisites are:

- Computer competency (BIS 221, Computers in Business I)
- Principles of Accounting I (ACC 201)
- Principles of Accounting II (ACC 202)
- Mathematics for Business I (MTH 116)
- OR Calculus I (MTH 132), and Introduction to Statistics (STA 282)

Applicants who have not satisfied the prerequisite course requirements will be considered for conditional admission, but they must complete the prerequisites before beginning their graduate course work.

Degree Requirements

Required Courses (15 hours)

- BIS 628 - Business Transaction Processing Systems 3(3-0)
- BIS 630 - Systems Analysis and Design 3(3-0)
- BIS 633 - Decision Support Systems 3(3-0)
- BIS 634 - Information Resources Management 3(3-0)
- BIS 638 - Database Management for Business Systems 3(3-0)

Area of Concentration (9 hours)

A planned course of study in one of the following areas, to be approved by the graduate advisor.

- Business Processing Engineering
- Systems Applications
- General Business
- Teaching/Training

Other Requirement

Pass a written comprehensive examination in information systems.

Research Requirement (6 hours)

Choose one of the following plans:

Plan A: Thesis

- BIS 798 - Thesis 1-6(Spec)

Completion of a thesis includes an oral examination over the thesis.

Plan B: Non-thesis

- BIS 625 - Research in Information Systems 3(3-0)
- BIS 635 - Business Systems Applications 3(3-0)

To provide evidence of scholarship, each student will complete a substantial written report in the application of information systems within an organization. The project will typically include significant information systems development activity demonstrating evidence of creative ability.

Total: 30 credit hours

Certificate in Business Computing

Minimum Totals for Graduation: 15 hours

Admission Requirements, Retention & Termination Standards

The certificate program consists of 15 semester hours of computer-related courses which must be authorized by a BIS graduate advisor. The plan should be authorized before the student completes six semester hours of work. The same grade-point requirements as used for degree programs will apply to the certificate program. A maximum of six credits hours of equivalent graduate course work may be transferred in from a regionally accredited institution. The same grade-point requirements will apply to the certificate program. A maximum of six credits hours of equivalent graduate course work may be transferred in from a regionally accredited institution. Certificates will be awarded by the College of Graduate Studies upon successful completion. The certificate may be earned by holders of a bachelor's degree (or higher).

Prerequisites:
1. A bachelor's degree from an accredited institution,
2. Earned an undergraduate grade point average of at least 2.7 in the last two years of study, and completed five prerequisite courses with a grade point average of at least 2.7 and no course grade lower than "C".

(continued)
The prerequisite courses are: Computers in Business I (BIS 221) or equivalent; Principles of Accounting (ACC 201) or equivalent; Principles of Accounting II (ACC 202) or equivalent; Mathematics for Business I (MTH 116) or Calculus I (MTH 132) or equivalent; and Introduction to Statistics (STA 282) or equivalent.

Courses cannot be taken CR/NC.

Certificate Requirements

Required Courses I (7 hours)
BIS 601 - Management Information Systems 3(3-0)
BIS 640 - Essentials of Transaction Processing Systems 2(2-0)
BIS 643 - Essentials of Database Management 2(2-0)

Required Courses II (2-3 hours)
Select one of the following:
BIS 630 - Systems Analysis and Design 3(3-0)
BIS 641 - Essentials of Business Systems Analysis and Design 2(2-0)

Electives (6 hours)
With the approval of an advisor, select 5 to 7 credit hours (should be 6) from the following BIS-related electives for a total of 15 credit hours:
BIS 633 - Decision Support Systems 3(3-0)
BIS 634 - Information Resources Management 3(3-0)
BIS 635 - Business Systems Applications 3(3-0)
BIS 644 - Decision Support for Management 2(2-0)
BIS 697 - Special Studies in Business Information Systems 1-2(Spec)

Note: you cannot use both BIS 633 and BIS 644 to fulfill the requirement.

Total: 15-16 credit hours

Course Descriptions: BIS

BIS 520 Teaching & Training at the Post-Secondary Level
3(3-0)
Learning process, planning and delivering instruction and training, assessing learning, using technology, adult learners, and current research. Designed for collegiate-level business instructors or trainers. Prerequisites: BIS 350 or admission to the MSIS or MBA program or graduate standing. This course is approved for offering in a distance learning format.

BIS 555 Technology in Business 1-12(Spec)
Issues related to technology and developing and refining computer-related skills and knowledge for solving business problems. Maximum of 6 hours apply to MBE. Prerequisites: admission to MBE.

BIS 597 Special Studies in Business Information Systems 1-12(Spec)
Selected topics not normally included in existing courses, with current topics listed in the semester Class Schedule. Repeatable up to 12 credits with different topics. Prerequisites: See Class Schedule.

BIS 601 Management Information Systems 3(3-0)
Concepts and practices of management information systems for using information in the management of business enterprises are investigated to determine their deployment in achieving organizational objectives. Prerequisites: BIS 221 or other evidence of computer literacy and admission to MBE or MBA, or permission of MBA director.

BIS 603 Curriculum in Business Education 3(3-0)
Philosophy, status, problems, trends, and innovations in the development of business education curricula. Prerequisites: admission to the MBE.

BIS 610 Improvement of Instruction in Keyboarding/Word Processing 3(3-0)
Objectives, motivation, testing, standards, equipment and materials, and remedial practices. Examination and application of current research findings pertaining to keyboarding and word processing. Prerequisite: admission to Master of Arts in Secondary Education with signed emphasis in Business Education or listed on signed 18-hour planned program or permission of BTE graduate program advisor.

BIS 612 Improvement of Instruction in Office Cluster 3(3-0)
Objectives, motivation, testing, standards, equipment and materials, and remedial practices. Examination and application of current research findings pertaining to office education and office information systems. Prerequisite: admission to MBE and BIS 280.

BIS 616 Improvement of Instruction in Marketing 3(3-0)
Objectives, motivation, testing, standards, equipment and materials, and remedial practices. Examination and application of current research findings pertaining to marketing and distributive education. Prerequisite: admission to MBE and MKT 300.

BIS 618 Improvement of Instruction in Data Processing 3(3-0)
Objectives, motivation, evaluation, standards, teaching aids, remedial practices, current research findings pertaining to data processing education. Prerequisite: Admission to the MBE.

BIS 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

BIS 625 Research in Information Systems 3(3-0)
Addresses information systems (IS) research concepts and methods, and the application of concepts in planning and conducting IS research studies. Prerequisites: Admission to the MBA or MSIS program; or permission of the MBA or MSIS director. This course is approved for offering in a distance learning format.

BIS 628 Business Transaction Processing Systems 3(3-0)
Application of structured programming concepts using a procedural programming language and coverage of current issues in transaction processing. Students may only earn credit for one of the following courses, BIS 640 or BIS 628. Prerequisites: admission to the MBA or MSIS program; or permission of the MBA or MSIS director. This course is approved for offering in a distance learning format.

BIS 630 Systems Analysis and Design 3(3-0)
Business systems modeling, planning, and developing systems prototypes; investigation and analysis of systems strategies and models. Prerequisites: Admission to the MBA program or MSIS program or permission of the MBA director or MSIS director and completion of the following courses: BIS 221 or BIS 255, ACC 201 and ACC 202 or ACC 250 and ACC 255, MTH 132 or MTH 217 and STA 282, with a minimum grade-point of 2.7 with no course grade lower than a C.

BIS 632 Business Network Systems Management 3(3-0)
Examination of the management of telecommunication issues in business applications, especially those related to business network systems. Prerequisites: Admission to the MBA program or MSIS program or permission of the MBA director or MSIS director and completion of the following courses: BIS 221 or BIS 255, ACC 201 and ACC 202 or ACC 250 and ACC 255, MTH 132 or MTH 217 and STA 282, with a minimum grade-point of 2.7 with no course grade lower than a C.
BIS 633 Decision Support Systems 3(3-0)
Concepts and practices of decision support systems are investigated for assisting managers in decision making including current research issues. A decision support system is developed using a fourth-generation computer language. Prerequisites: Admission to the MBA program or MSIS program or permission of the MBA director of MSIS director and completion of the following courses: BIS 221 or BIS 255, ACC 201 and ACC 202 or ACC 250 and ACC 255, MTH 132 or MTH 217 and STA 282, with a minimum grade-point of 2.7 with no course grade lower than a C. This course is approved for offering in a distance learning format.

BIS 634 Information Resources Management 3(3-0)
Overview and understanding of the issues involved in the management of information assets in organizations. Emphasis is placed on designing for convergent technologies as well as on inherent societal issues. Prerequisites: Admission to the MBA program or MSIS program or permission of the MBA director or MSIS director and completion of the following or courses: BIS 221 or BIS 255, ACC 201 and ACC 202 or ACC 250 and ACC 255, MTH 132 or MTH 217 and STA 282, with a minimum grade-point of 2.7 with no course grade lower than a C. This course is approved for offering in a distance learning format.

BIS 635 Business Systems Applications 3(3-0)
Learn about the major information systems of an organization and utilize the tools of systems analysis in a real-world situation. Prerequisites: admission to MBA Program and completion of the following courses: BIS 630 This course is approved for offering in a distance learning format.

BIS 638 Database Management for Business Systems 3(3-0)
A broad coverage of the use, development, and management of business database systems. Students will learn to develop and use relational databases as an information systems professional or end user. The management databases and their strategic implications will also be covered. Prerequisites: Admission to MBA or MSIS program, or permission of the MBA or MSIS director. This course is approved for offering in a distance learning format.

BIS 640 Essentials of Transaction Processing Systems 2(2-0)
The development of information systems for processing business transactions using a procedural programming language for processing daily business transactions. Prerequisites: Admission to MBA Program or permission of the MBA Director and completion of the following courses: MBA 504, MBA 511 and knowledge of advanced business applications in spreadsheet software.

BIS 641 Essentials of Business Systems Analysis and Design 2(2-0)
Essentials of the analysis and design of business systems; studying the current system, and developing system alternatives. Prerequisites: Admission to MBA Program or permission of the MBA Director and completion of the following courses: MBA 504, MBA 510, MBA 511 and knowledge of advanced business applications in spreadsheet software.

BIS 643 Essentials of Database Management 2(2-0)
Essential database concepts with emphasis on the relational model and its application to business systems. Prerequisites: BIS 640 and knowledge of advanced business applications in database software.

BIS 644 Decision Support for Management 2(2-0)
Concepts and practices of decision support systems are investigated for assisting managers in decision making including current research issues. Prerequisites: MBA 609.

BIS 645 Integrative Office Information Management 3(3-0)
A study of concepts and systems used for managing information in offices, such as word processing, production, and administrative support. Prerequisite: admission to the MBE.

BIS 647 SAP Enterprise Software for Management 3(3-0)
Examination of the application and management of business enterprise software using SAP. Issues include software deployment that supports transaction processing in the business supply chain. Prerequisites: Admission to the MBA program or MSIS program or permission of the MBA director or MSIS director and completion of the following courses: BIS 221 or BIS 255, ACC 201 and ACC 202 or ACC 250 and ACC 255, MTH 132 or MTH 217 and STA 282, with a minimum grade-point of 2.7 with no course grade lower than a C. This course is approved for offering in a distance learning format.

BIS 650 Office Facility Planning and Design 3(3-0)
Landscaping, furniture systems, selection criteria for equipment, work flow, cost control, trends, and issues in the business office. Prerequisite: admission to the MBE.

BIS 652 Problems in Vocational Education 3(3-0)
Study in specific problem areas in vocational education. Designed for teachers and coordinators. Prerequisite: admission to the MBE.

BIS 653 Principles and Philosophy of Vocational Education 3(3-0)
Principles and philosophies of vocational education and their implications for the classroom teacher. Prerequisite: admission to the MBE.

BIS 656 SAP Business Information Warehouse 3(3-0)
A study of SAP Business Information Warehouse (BW). Enterprise data warehousing and advanced reporting and data analysis tools are covered. This course is approved for offering in a distance learning format. Prerequisites: BIS 647 Recommended: BIS 638.

BIS 657 ABAP Programming for Managerial Systems 3(3-0)
Application of the ABAP Programming language to implement business processing using the SAP R/3 System as an example of contemporary enterprise software. Prerequisites: BIS 628 or BIS 640, BIS 647 and admission to the MBA or MSIS program; or permission of the MBA or MSIS director. This course is approved for offering in a distance learning format.

BIS 658 SAP Configuration and Implementation for Global Systems 3(3-0)
Configuration issues, concepts, and application of enterprise software (SAP) for global business organization integration. This course is approved for offering in a distance learning format. Prerequisites: BIS 647, BIS 657; admission to MBA or MSIS program or permission of MBA or MSIS director.

BIS 660 Administrative Business Communication 3(3-0)
Developing and refining business communication skills for enhancing corporate policy, management, and technology. Prerequisite: admission to MBA or MBE.

BIS 667 Electronic Business Systems for e-Commerce 3(3-0)
Business opportunities, challenges, and strategies to leverage the global information infrastructure will be discussed. Students will also learn tools and technologies needed for electronic business systems. Prerequisites: admission to the MBA or MSIS program, or permission of the MBA or MSIS Director.

BIS 686 Comparative Business Education 3(3-0)
Study of business education in selected foreign countries and/or areas of the United States. Prerequisite: admission to the MBE.
BIS 688 Directed Work/Observation/Internship 1-6(Spec)
Work or internship experience and/or directed observation at business/business education sites. Maximum of three hours may be applied to MBE. Prerequisite: admission to MBE.

BIS 697 Special Studies in Business Information Systems 1-12(Spec)
Special topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisite: Admission to MBE or MBA.

BIS 701 Professional Development Practicum 3(Spec)
Professional development through conference attendance, participation and professional writing. CR/NC only. Prerequisite: admission to the MBE.

BIS 791 Independent Research 3(Spec)
Development of research skills and completion of a formal research study. CR/NC only. Prerequisite: BIS 790 and admission to the MBE. Enrollment must occur the semester after successful completion of BIS 790.

BIS 798 Thesis 1-6(Spec)
Provides the student with research skills through development and completion of a research study in a specific area of business education. CR/NC only. Prerequisites: BIS 790; admission to the MBE. Enrollment must occur the semester after successful completion of BIS 790.

Department of Chemistry (CHM)

College of Science and Technology

David E. Ash, Chairperson
268 Dow, (989) 774-3981

BIS 688 Directed Work/Observation/Internship 1-6(Spec)
Work or internship experience and/or directed observation at business/business education sites. Maximum of three hours may be applied to MBE. Prerequisite: admission to MBE.

BIS 697 Special Studies in Business Information Systems 1-12(Spec)
Special topics of interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisite: Admission to MBE or MBA.

BIS 701 Professional Development Practicum 3(Spec)
Professional development through conference attendance, participation and professional writing. CR/NC only. Prerequisite: admission to the MBE.

BIS 791 Independent Research 3(Spec)
Development of research skills and completion of a formal research study. CR/NC only. Prerequisite: BIS 790 and admission to the MBE. Enrollment must occur the semester after successful completion of BIS 790.

BIS 798 Thesis 1-6(Spec)
Provides the student with research skills through development and completion of a research study in a specific area of business education. CR/NC only. Prerequisites: BIS 790; admission to the MBE. Enrollment must occur the semester after successful completion of BIS 790.

David E. Ash, Chairperson
268 Dow, (989) 774-3981

David E. Ash, Ph.D., University of Pennsylvania, Biochemistry

Minghui Chai, Ph.D., University of Akron, Analytical Chemistry

Wenjun Du, Ph.D., University of California - Davis, Biomaterials, Organic and Polymer Chemistry

Bradley D. Fahlman, Ph.D., Rice University, Inorganic Materials Chemistry

Bob A. Howell, Ph.D., Ohio University, Organic and Organometallic Chemistry

Anton W. Jensen, Ph.D., Brigham Young University, Organic Chemistry

Estelle L. Lebeau, Ph.D., University of North Carolina, Inorganic Chemistry

Dale J. LeCaptain, Ph.D., Michigan State University, Analytical Chemistry

Choon Young Lee, Ph.D., Northeastern University, Organic/Medicinal Chemistry

Glenn S. Lewandos, Ph.D., University of Texas, Organometallic Chemistry

Bingbing Li, Ph.D., Virginia Polytechnic Institute and State University, Physical Chemistry

Dillip K. Mohanty, Ph.D., Virginia Polytechnic Institute and State University, Polymer Chemistry

Anja Mueller, Ph.D., Washington University in St. Louis, Polymer Chemistry/Biomaterials

Ajit Sharma, Ph.D., Wayne State University, Biochemistry/Clinical Chemistry

Philip J. Squattroto, Ph.D., Northwestern University, Inorganic Chemistry/Crystallography

Mary M.J. Tecklenburg, Ph.D., Texas A & M University, Physical/Analytical Chemistry

Janice Hall Tomasik, Ph.D., University of Wisconsin - Madison, Chemical Education

Calvin D. Tormanen, Ph.D., University of Minnesota, Biochemistry

Programs of Study
As detailed below, the Department of Chemistry offers programs of study leading to the master of science (M.S.) degree and the master of arts (M.A.) degree with emphasis in teaching high school chemistry and college chemistry. The M.S. is a research degree and specializations are possible in biochemistry, and in analytical, inorganic, organic, materials, physical and polymer chemistry.

A minimum of 30 semester hours must be satisfactorily completed for either master’s degree. A maximum of 15 hours of satisfactory graduate credit may be transferred into the CMU programs. Regular students are expected to be in residence for a period of two years.

Research may be started at any time and may be carried out in the Central Michigan University laboratories, at the Michigan Molecular Institute’s complex in Midland or, by special arrangement, at nearby industrial locations.

Many CMU chemistry graduates enter employment in the tri-cities industrial complex which includes the Dow Chemical and Dow Corning companies. Graduates may choose to enter the Ph.D. program in the Science of Advanced Materials at CMU or Ph.D. programs of other institutions.
Research Facilities
The department occupies approximately 62,000 square feet in the Dow Science Complex, which contains research stations for more than 20 full-time graduate students.

Instrumentation includes specialized equipment used in specific research projects, GC/MS, thermal analysis systems, Raman, GPC and HPLC chromatographic systems, as well as UV, AA, FT-IR, AFM, and superconducting NMR instruments.

A small collection of bound research journals is kept within the department, and a complete research library is located in nearby Park Library.

Financial Aid
Financial support for chemistry graduate students is available in several forms. Graduate teaching assistantships, the most common form of support, involve full-time graduate study and require teaching activities. Graduate teaching assistants receive a cash stipend (adjusted annually) and remission of 20 credits of tuition. Full-time students with outstanding records may receive graduate research fellowships. A reduced amount of teaching is required of fellows. Individual faculty research grants support fellowship or summer research activities as well. Generally all full-time graduate students receive aid in one of the categories described above.

Master of Science (M.S.) in Chemistry

Minimum Totals for Graduation: 30 hours

Admission Requirements, Retention & Termination Standards
Applicants for admission to the Chemistry M.S. program must be admitted initially to the College of Graduate Studies. The application should be sent to the College of Graduate Studies, Central Michigan University, Mount Pleasant, MI, 48859 or completed on-line at http://www.grad.cmich.edu/forms.htm. In addition to the College of Graduate Studies admission materials, the applicant must provide general GRE scores and is strongly encouraged to provide the chemistry subject matter GRE scores to the College. Students from non-English speaking countries may be required to submit TOEFL scores. Upon submission of all required materials, the College forwards the materials to the Department of Chemistry for admission recommendation. Final notice of admission comes from the College of Graduate Studies. Applicants should submit all required materials at least six weeks before the beginning of the semester.

Applicants should have received a baccalaureate degree in chemistry, biochemistry, or related area, with a minimum grade point average of 2.7 overall and 2.7 in chemistry courses. Undergraduate coursework should include mathematics through calculus and one year of physics. Students with deficiencies in chemistry, mathematics, or physics may receive conditional admission. Regular admission is granted when those deficiencies are removed by completing coursework in addition to that required for the M.S. degree.

Financial support in the form of teaching and research assistantships is received by application directly to the Department of Chemistry using the application form found at http://www.cst.cmich.edu/units/chm/. Further information about the program may be found at the same web address. Completed applications for financial support should be received by March 1 for fall semester admission and by October 1 for spring semester admission.

Full time students are required to attend and actively participate in all departmental seminars.

Satisfactory progress through the M.S. program involves maintaining at 3.0 cumulative grade point average in required courses, completion of a faculty directed program of research, and successful preparation and defense of a written thesis.

Foundation Courses (9-10 hours)
Select three from the following:
CHM 511 - Advanced Analytical Chemistry 4(2-4)
CHM 521 - Fundamentals of Biochemistry 3(3-0)
CHM 531 - Advanced Inorganic Chemistry 3(3-0)
CHM 541 - Intermediate Organic Chemistry 3(3-0)
CHM 555 - Advanced Physical Chemistry 3(3-0)

Note: Students are expected to show competency in all foundation areas at the undergraduate level. The Graduate Program Committee will determine any required foundation courses based on transcripts and placement exam performance (Chemistry department or American Chemical Society exams taken the week before the student’s initial semester).

Required Courses (3 hours)
CHM 601 - Chemistry Seminar Presentations 2(2-0)
CHM 602 - Scientific Writing in Chemistry 1(1-0)

Electives (11-12 hours)
At least 6 credit hours must be earned in Chemistry courses at the 600 level. Electives must be approved by the Graduate Program Committee.

Thesis (6 hours)
CHM 798 - Thesis 1-6(Spec)

Note: Arrangements for completion of the thesis requirements are worked out between the student, research director and thesis committee chair. For further information, the student may confer with the graduate program coordinator or the Department of Chemistry.

Total: 30 semester hours

Master of Arts (M.A.) in Teaching Chemistry

Minimum Totals for Graduation: 30 hours

Admission Requirements, Retention and Termination Standards
All applicants must submit scores for the general GRE and subject matter GRE in chemistry. To receive full consideration for financial support beginning in a fall semester, all application materials must be received in the Department of Chemistry no later than March 1. Applicants should allow approximately six weeks for materials submitted to the College of Graduate Studies to be processed and forwarded to the department. Details regarding the application process and the program may be found at http://www.cst.cmich.edu/units/chm/.

In addition to general university requirements, the student must demonstrate appropriate proficiency in chemistry and in mathematics.

Degree Requirements
Select one of the following options:

Chemistry: Teaching College Chemistry

• A minimum of 30 semester hours of courses taken as a graduate student.
• A minimum of 55 semester hours of chemistry (combining graduate and undergraduate credits).
• A minimum of 15 semester hours of chemistry at or above the 600 level.
CHM 781 - Chemistry Teaching Practicum 2(Spec)
CHM 793 - Chemistry Teaching Internship 1-9(Spec)
CHM 794 - Experimentation in the Teaching of Chemistry 1-6(Spec)

Note: Three to nine hours of CHM 793 are required. Six semester hours of CHM 794 shall be fulfilled by demonstration of creative scholarship in the teaching of chemistry as designated by the committee.

Total: 30 Semester Hours

Chemistry: Teaching High School Chemistry
- A minimum of 30 semester hours of courses taken as a graduate student.
- A minimum of 45 semester hours of graduate and undergraduate chemistry courses.
- A minimum of 12 semester hours of graduate chemistry courses at or above the 600 level.
- Evidence of high school certification.

CHM 781 - Chemistry Teaching Practicum 2(Spec)
CHM 794 - Experimentation in the Teaching of Chemistry 1-6(Spec)

Note: Three to six semester hours of CHM 794 are required.

Total: 30 Semester Hours

Ph.D. in the Science of Advanced Materials
This degree is an interdisciplinary program. Please see the index for the page number.

Course Descriptions: CHM

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.

CHM 507 Field Experience in Teaching Chemistry/Physics 1(Spec)
Supervised experience in high school chemistry and/or physics classes. Experience will include observation, participation in instruction, and critical analysis of the experience. Identical to PHY 507. Credit may not be earned in more than one of these courses. CR/NC only. Corequisite: CHM/PHY 505.

CHM 511 Advanced Analytical Chemistry 4(2-4)
Spectroscopic, electrochemical, and other techniques as applied to analytical chemistry. Prerequisites: CHM 211. Recommended: CHM 352 or 355.

CHM 513 Chemistry of Natural Waters 3(Spec)
Fundamentals of laboratory, field analysis of water; application of data to environmental studies. Prerequisite: permission of instructor.

CHM 521 Fundamentals of Biochemistry 3(3-0)
Structure, function, and metabolism of proteins, carbohydrates, lipids, and nucleic acids. Prerequisites: CHM 346.

CHM 522 Intermediate Biochemistry 3(3-0)
Continuation of CHM 521. Material covered will include in-depth exploration of metabolism of biomacromolecules and biochemical processes requiring their use. Prerequisites: CHM 521.

CHM 527 Biochemistry Laboratory 1(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. Pre/Co-Requisite: CHM 425 or CHM 521.

CHM 528 Bioanalytical Techniques Laboratory 2(1-3)
Laboratory analysis of biochemical materials using volumetric, electroanalytical, spectroscopic, and chromatographic techniques. Prerequisites: CHM 425 or 521, Pre/Co-Requisite: CHM 527.

CHM 531 Advanced Inorganic Chemistry 3(3-0)
Molecular structure and symmetry, acid-base and oxidation-reduction chemistry, reactivity of inorganic compounds from a thermodynamical basis, catalysis, solid state and organometallic compounds. Prerequisites: CHM 331. Recommended: CHM 352.

CHM 541 Intermediate Organic Chemistry 3(3-0)
Mechanisms of organic reactions, emphasizing methods by which these are determined, including kinetics, principles of bonding, stereochemistry, and nuclear magnetic resonance in depth. Prerequisites: CHM 346. Recommended: CHM 351 or 355.

CHM 547 Advanced Chemistry Laboratory 2(1-3)
Advanced synthesis, separation, and structure determination of organic and inorganic compounds. Prerequisite: CHM 349, 331.

CHM 551 Properties and Applications of Modern Materials 3(3-0)
Properties, structure, and applications of modern materials such as those with special nanostructures and unusual electronic, optical, rheological, and biological properties. Prerequisites: One year each of college level chemistry, physics, and calculus; senior or graduate standing in a science, mathematics or engineering degree program.

CHM 552 Synthesis and Characterization of Modern Materials 3(3-0)
A survey of the major classes of materials, focusing on the techniques used for synthesis and characterization and the relationship between structure and properties. Prerequisites: CHM 331, 346.

CHM 555 Advanced Physical Chemistry 3(3-0)
Advanced development and application of physical theories using a statistical mechanic approach to understanding of molecular energetic and kinetics. Prerequisites: CHM 352 or 355; MTH 233.

CHM 561 Polymer Chemistry 3(3-0)
An introduction to the concepts of polymer synthesis, characterization by physical, thermal, and spectroscopic methods, structure, properties, and basic fabrication processes. Prerequisites: CHM 346 and CHM 352.

CHM 562 Industrial Chemistry 3(3-0)
Treatment of the following three primary areas: 1) actual chemistry of industry, 2) the technology of industry, and 3) the industrial chemical environment. Prerequisite: CHM 346.

CHM 563 Petroleum Operations 3(3-0)
Treatment of the basic elements of the chemical and physical properties of petroleum: its recovery, processing and use as a base for the fuel and petrochemical industries. Prerequisite: CHM 342 or CHM 346.

CHM 564 Introduction to Polymer Technology 2(2-0)
A consideration of the major groups of technologically important polymers, including raw material base, the important methods of manufacture, properties, processing, compounding, uses and testing. Prerequisite: CHM 561.
CHM 565 Polymer Processing 1(1-0)
An introduction to polymer processing; fabrication of thermoplastics and thermosets using conventional and specialized techniques. Prerequisites: CHM 346, CHM 352.

CHM 567 Polymer Science Laboratory 2(1-3)
Treatment of laboratory techniques common to polymer science: synthesis of polymers and the characterization of these materials by spectroscopic, thermal, and mechanical methods. Prerequisites: CHM 349. Corequisite: CHM 561.

CHM 571 Topics in Chemistry 1-9(Spec)
Special topics in chemistry presented at an advanced undergraduate - beginning graduate level. Course may be taken for credit more than once; total credit not to exceed nine hours. Prerequisites: See class schedule.

CHM 572 Selected Topics in Chemistry 1-9(Spec)
Special topics in chemistry, presented in short course or workshop format. Course may be taken for credit more than once; total credit not to exceed nine hours. CR/NC only. Prerequisites: Senior level undergraduate or graduate standing in chemistry or biochemistry programs.

CHM 583 Seminar in Chemistry 1-4(Spec)
Presentation of technical material and training in the use of chemical literature. Repeated enrollment in CHM 583 is encouraged (up to four times); however, a maximum of 2 credit hours may be used to satisfy major or minor requirements. Prerequisite: 25 hours of chemistry.

CHM 601 Chemistry Seminar Presentations 2(2-0)
Exploration of methods and skills involved in scientific technical presentation of chemistry and chemically-related technical materials. Prerequisites: Admission to a graduate program in Chemistry.

CHM 602 Scientific Writing in Chemistry 1(1-0)
Exploration of methods and skills involved in the writing of refereed scientific papers, grant proposals, theses and dissertations. Prerequisites: Admission to a graduate program in Chemistry.

CHM 611 Advanced Topics in Analytical Chemistry 1-9(Spec)
Special topics in analytical chemistry not included in the regular courses in the chemistry graduate program. Course may be taken for credit more than once; total credit not to exceed nine hours. Prerequisites: CHM 511.

CHM 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

CHM 621 Advanced Biochemistry 3(3-0)
Advanced study of enzymatic mechanisms that regulate biological processes including cell division, signaling, and immunity. Prerequisite: CHM 521.

CHM 624 Advanced Topics in Biochemistry 1-9(Spec)
Special topics in biochemistry not included in the regular courses in the chemistry graduate program. Course may be taken for credit more than once; total credit not to exceed nine hours. Prerequisites: CHM 522.

CHM 631 Coordination Chemistry 3(3-0)
This course will describe the structure, bonding, reactivity, and characterization of coordination compounds, with a discussion of solid-state characterization techniques and applications. Prerequisite: CHM 531.

CHM 632 Advanced Topics in Inorganic Chemistry 1-9(Spec)
Special topics in inorganic chemistry not included in the regular courses in the chemistry graduate program. Course may be taken for credit more than once; total credit not to exceed nine hours. Prerequisites: CHM 531.

CHM 641 Advanced Topics in Organic Chemistry 1-9(Spec)
A variety of specialized topics presented by experts. May be repeated as offered to a maximum of 9 hours. Prerequisite: CHM 541.

CHM 643 Physical Organic Chemistry 3(3-0)
Mechanisms of diverse organic reactions based on reactivity of compounds, emphasizing the study of mechanisms including kinetics, free energy relationships, bonding, and stereochemistry. Prerequisite: CHM 541.

CHM 644 Organic Reactions and Synthesis 3(3-0)
A general survey of advanced organic reactions and syntheses; examples from the research literature are emphasized. Prerequisite: CHM 541.

CHM 651 Advanced Topics in Physical Chemistry 1-9(Spec)
A variety of specialized topics presented by experts. May be repeated as offered to maximum of 9 hours. Prerequisite: CHM 352.

CHM 655 Quantum and Computational Chemistry 3(3-0)
Application of physical theories using a quantum mechanical approach and computational techniques for understanding of properties of atoms, molecules, and molecular systems. Prerequisites: CHM 352, MTH 233.

CHM 663 Macromolecular Synthesis 1(1-0)
The organic chemistry of macromolecular synthesis is explored for condensation, free-radical, emulsion, ionic, and ring-opening polymerizations. Included are their mechanisms, kinetics, limitations, and applications. Prerequisites: CHM 561.

CHM 664 Chemical Structure and Reactivity of Polymers 1(1-0)
Topics include chemical constitution, configuration, and conformation of polymers; intramolecular polymer modifications (isomerization, degradation, crosslinking); reactions that form segmented, block, and graft copolymers; polymeric supports. Prerequisites: CHM 561.

CHM 665 Advanced Topics in Polymer Chemistry 1-9(Spec)
Special topics in polymer chemistry not included in the regular courses in the chemistry graduate program. Course may be taken for credit more than once; total credit not to exceed nine hours. Prerequisites: CHM 561.

CHM 666 Solution Properties of Polymers 1(1-0)
An introduction to current concepts and models of polymer behavior in solutions; methods for molecular-weight determination and polymer characterization. Prerequisites: CHM 561.

CHM 668 Physical Structure of Polymers 1(1-0)
An introduction to the concepts of solid state structure formation in macromolecules as the connection between chemical structure and physical properties. Prerequisites: CHM 561.

CHM 669 Polymer Rheology 1(1-0)
Various topics in the field of polymer rheology are introduced and discussed with an emphasis on the molecular interpretation of flow and deformation phenomena. Prerequisites: CHM 561.
CHM 673 Applications of Kinetics 1(1-0)
Experimental determination of reaction order; activation parameters; fast reactions; deriving rate laws from mechanisms, including catalyzed and chain reactions; isotope effects; linear free energy relationships.

CHM 675 Reaction Mechanisms 1(1-0)
Mechanisms through kinetics studies; stereochemistry of organic, inorganic reactions, Linear free energy relationships, catalysis, kinetic isotope effects.

CHM 676 Inorganic Reactions 1(1-0)
Formation and decomposition of simple and complex molecules; acid-base, redox systems. Reactions of organometallic, coordination complexes. Irradiation, nuclear reactions.

CHM 677 Quantum Chemistry 1(1-0)
Simple solutions to Schrödinger’s equation; approximation techniques. Applications to spectroscopy, molecular orbital theory.

CHM 678 Organic Reactions 1(1-0)
Extensive treatment of free radical, nucleophilic, and electrophilic processes; applications to aliphatic, aromatic, and polymeric compounds.

CHM 679 Theory of Spectroscopy 1(1-0)
Modern physical methods for determining structure of organic, inorganic molecules.

CHM 680 Biochemical Reactions 1(1-0)
Bonding in, and structure of biomolecules; stereochemistry and mechanism of selected biochemical reactions. Dynamics, energetics of biological reactions. Bioinorganic reactions.

CHM 682 Principles of Synthesis 1(1-0)
Formation of a carbon skeleton; synthesis design. Preparation, isolation of intermediates and products.

CHM 683 Thermodynamics 1(1-0)
The laws of thermodynamics and their application to single and multicomponent systems of gases, liquids, and solids.

CHM 686 Applications of Spectroscopy 1(1-0)
The solution of practical problems using spectroscopy; structure determination using ultraviolet, visible, infrared, nuclear magnetic resonance (1H and 13C) spectroscopy and mass spectrometry.

CHM 687 Analytical Techniques 1(1-0)
Elemental analysis: instrumental methods; chemical methods. Trace analysis: GC-MS; capillary GC, atomic absorption; electroanalytical methods. Analytical separations. Polymer analysis.

CHM 688 Bonding and Stereochemistry 1(1-0)
Bonding theories, symmetry elements, point groups, isomerism, stereochemical measurements.

CHM 690 X-Ray Diffraction of Polymers 1(1-0)
An introduction to x-ray techniques that are used for the determination and characterization of the physical structure of macromolecular systems. Prerequisites: CHM 561.

CHM 691 Heterophase Polymer Systems 1(1-0)
Polymers in multiphase systems with emphasis on the thermodynamics and on the mechanical and rheological behavior of such systems. Prerequisites: CHM 561.

CHM 692 Polymer Degradation and Stabilization 2(2-0)
Consideration of the major modes of degradation of polymeric materials and the means by which such systems may be stabilized. Prerequisites: CHM 561.
Department of Communication and Dramatic Arts  
(COM, DAN, TAI)  
College of Communication and Fine Arts  
Neil Vanderpool, Chairperson  
333 Moore Hall, (989) 774-3177  

Steven Berglund, M.F.A., Theatre, Interpretation and Dance  
Nancy L. Buerek-Rothfuss, Ph.D., Communication  
Timothy Connors, Ph.D., Theatre, Interpretation and Dance  
Yvette Crandall, M.S., Theatre, Interpretation and Dance  
William Dailey, Ph.D., Communication  
Ann Dasen, M.F.A., Theatre, Interpretation and Dance  
Jeff Drury, Ph.D., Communication  
Nancy Eddy, M.F.A., Theatre, Interpretation and Dance  
Pamela Gray, Ph.D., Public Communication  
Edward Hinck, Ph.D., Communication  
Stan Jensen, M.F.A., Theatre, Interpretation and Dance  
Shelly Schaefer Hinck, Ph.D., Communication  
Lauren McConnell, Ph.D., Theatre, Interpretation, and Dance  
Michael Papa, Ph.D., Communication  
Wendy Papa, Ph.D., Communication  
Doris J. Ramsey, M.A., Theatre, Interpretation and Dance  
Mary Ann Renz, Ph.D., Communication  
Keeley Stanley-Bohn, M.F.A., Theatre  
Eric Steggall, M.F.A., Theatre, Interpretation and Dance  
Jill Taft-Kaufman, Ph.D., Theatre, Interpretation and Dance  
Annette Thornton, Ph.D., Theatre, Interpretation and Dance  
Neil Vanderpool, M.F.A., Theatre, Interpretation and Dance  
Lesley Withers, Ph.D., (Graduate Coordinator) Communication  

Master of Arts (M.A.) in Communication and Dramatic Arts: Communication  

Minimum Totals for Graduation: 33 hours  
The graduate program of study in Communication and Dramatics Arts provides a strong background in communication research methods and classical and contemporary communication theory. Graduates from the program follow a variety of careers. Many continue graduate work in Ph.D. programs, become secondary or community college teachers, or find positions in business and media (marketing, management, training, consulting) or as coordinators of social service and volunteer organizations. Still others pursue careers in law, politics and the ministry.  

Admission Requirements, Retention & Termination Standards  
Application Deadline:  
October 15 for spring admittance consideration;  
March 15 for fall admittance consideration  
In addition to the general university requirements, for regular admission to the Communication and Dramatic Arts graduate program, the student must have an overall grade point average of 2.7 or higher in the last 60 hours of undergraduate credit, and a grade point average of 3.0 or higher in the last 15 hours of communication and dramatic arts courses or courses determined by the department to be related to communication or dramatic arts. A student who does not meet the above requirements may be admitted to graduate study on a conditional basis. Acceptance of transfer credit will be dependent upon the decision of the academic advisor. A maximum of 15 semester hours of approved graduate-level courses appropriate to a student's degree program from an accredited college or university may be transferred. Students must receive approval from the Director of Graduate Studies or their academic advisor and apply to the College of Graduate Studies for permission to transfer credit.  

Core Courses (6 hours)  
COM 600 - Introduction to Research and Graduate Study in Communication and Dramatics Arts 3(3-0)  
COM 601 - Research Design in Communication 3(3-0)  

Required Courses I (3 hours)  
Select one of the following:  
COM 602 - Qualitative Research Methods 3(3-0)  
COM 750 - Seminar in Rhetorical Criticism 3(3-0)  

Required Courses II (12 hours)  
COM 603 - Professional Seminar in Communication 3(3-0)  
COM 661 - Contemporary Communication Theory 3(3-0)  
COM 664 - Seminar in Organizational Communication 3(3-0)  
COM 668 - Seminar in Interpersonal Communication 3(3-0)  

Additional Requirement (0-6 hours)  
Student must complete either a comprehensive examination or a 6-hour thesis (research or applied).  
COM 798 - Thesis 1-6(Spec)  

Electives (5-12 hours)  
Courses in Communication and Dramatic Arts selected in consultation with advisor. No more than 3 credits from COM 764 or COM 790.  

Total: 33 semester hours  

Master of Science in Administration (M.S.A.)  

Concentration in Organizational Communication  
The Master of Science in Administration Program requires 36 Credit Hours of graduate study. The MSA Program provides students with the fundamental principles required for successful administrative careers in the public, private, or nonprofit sectors.  
The required core courses of the MSA program (15-21 Credit Hours) provide a comprehensive overview of organizational and human relationships and the administrative mechanisms through which to make sound analytical judgments and decisions.  
The Organizational Communication concentration (15-18 Credit Hours) provides students with a thorough grounding in the theory and practice of effective oral and written communication in modern organizations.  
Please go to page 214 for core classes and concentrations or to www.grad.cmich.edu/MSA/.  

Financial Aid  
The department offers two kinds of financial aid: teaching assistantships and forensic assistantships. Graduate teaching assistants teach two classes of COM 101 per semester. Graduate forensics assistants teach a COM 101 class and work and travel with either the debate team or individual events participants. All assistantships begin in the fall semester. Assistantships are eligible for a minimum of two semesters of financial support. Assistantships may be renewed for an additional two semester. Application deadline: March 15.
**Course Descriptions: COM**

**COM 523 Dark Side of Communication 3(3-0)**
This course examines negative communication behaviors such as expression of jealousy, gossip and rumor, embarrassment, criticism, deception, coercion, and obsession. Prerequisites: COM 251, 301 with grades of C or better; COM 361.

**COM 527 Political Communication 3(3-0)**
This course considers the influence of political communication in American society. The course addresses the connections between political discourse, the American people, and the media. Prerequisites: COM 251, 301 with a grade of C or better; junior standing.

**COM 555 Special Topics in Communication 1-9(Spec)**
Current topics of each semester listed in the Class Schedule. 3 hours each; maximum credit 9 hours. Prerequisites: grades of C (2.0) or better in COM 251, COM 301.

**COM 558 Historical Backgrounds of Communication Theory 3(3-0)**
Theories of rhetoric and communication from the classical, medieval, and Renaissance periods studied in a comprehensive historical philosophical survey. Prerequisite: COM 251, 301 with grades of C or better.

**COM 560 Communication and Social/Organizational Change 3(3-0)**
Research and methods of communicating changes into existing social systems. Prerequisites: grades of C (2.0) or better in COM 251, COM 301.

**COM 561 Communication in Conflict Management 3(3-0)**
Theory, research, and practical application of managing conflicts through communication. Focuses on conflict between people in the contexts of family, group, and organizations. Prerequisites: COM 251, 301 with grades of C or better.

**COM 562 Family Communication 3(3-0)**
The study of verbal and nonverbal communication processes, patterns, and problems in the family. The uniqueness of the family system as a communication context is emphasized. Prerequisites: COM 251, 301 with grades of C or better.

**COM 565 Communication Training in Organizations 3(3-0)**
This course examines the role of training in improving communication in organizations. The course discusses the design, development, implementation, and evaluation of organizational communication training. Prerequisites: COM 251, 301 with grades of C or better; COM 264.

**COM 569 Communication in the Classroom 3(3-0)**
Integrated research from several fields describing communication patterns among students and teacher-to-student within school settings. Designed for students interested in teaching or administration. Prerequisites: completion of 56 hours of undergraduate credit.

**COM 591 Oral Communication with Children 3(3-0)**
Study and practice of adult/child communication patterns. Course will include State objectives for speaking/listening. Designed for teachers and people working with children.

**COM 594 Directing Speech Activities 3(3-0)**
Designed to provide the student or the professional teacher with the skills needed to coach and administer forensic activities on the high school level. Prerequisites: COM 251, 301 with grades of C or better.

**COM 600 Introduction to Research and Graduate Study in Communication and Dramatic Arts 3(3-0)**
Introduces students to qualitative and quantitative methods of research relevant to communication arts and sciences.

**COM 601 Research Design in Communication 3(3-0)**
Prepares the student to understand the assumptions and rationale of social scientific research, and to understand and perform laboratory and field experiments.

**COM 602 Qualitative Research Methods 3(3-0)**
Exploration of theoretical and methodological issues in qualitative research in communication, focusing on particular research strategies including participant observation, ethnography, in-depth interviewing, and narrative. Prerequisites: COM 600.

**COM 603 Professional Seminar in Communication 3(3-0)**
This course explores topics such as: managing graduate workload, presenting/publishing professionally, conducting ethical research, choosing either comprehensive exam or thesis options, development of a prospectus. Prerequisites: Admitted into the Master of Arts in Communication and Dramatic Arts program.

**COM 619 Continuing Registration for Final Research Project 1(1-0)**
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

**COM 660 Seminar in Interpersonal Communication 3-9(Spec)**
Current topics for each semester listed in the Class Schedule. 3 hours each; maximum credit, 9 hours.

**COM 661 Contemporary Communication Theory 3(3-0)**
Critical interpretation and evaluation of published social psychological research which serves as the theoretical foundation of communication.

**COM 662 Seminar in Persuasion 3(3-0)**
Examines and analyzes theories and principles concerned with persuasion and attitude change. Emphasis placed on theory development, application, and evaluation. Prerequisites: COM 365.

**COM 664 Seminar in Organizational Communication 3(3-0)**
Includes a rigorous examination of the principles governing organizational communication and how these principles may be applied in practice and research. Prerequisites: COM 600.

**COM 665 Seminar in Communication and Negotiation in Employee Relations 3(3-0)**
The course examines the role of communication and negotiation in the employee relations process within a work organization. Prerequisite: COM 264, or applied experience of three years in a full-time position in a work organization and permission of the instructor.

**COM 667 Seminar in Intercultural Communication 3(3-0)**
This course examines the theory, practice, and research related to the process of communication between people from different cultural backgrounds. This course is approved for offering in a distance learning format. Prerequisites: COM 600.

**COM 668 Seminar in Interpersonal Communication 3(3-0)**
Seminar focuses on interpersonal communication theories and research. Students critically evaluate current theories and examine popular research methods. Prerequisites: admission to the Master of Arts graduate program in Interpersonal and Public Communication.
COM 750 Seminar in Rhetorical Criticism 3(3-0)
Conceptual approaches to the criticism of oral communication. Criteria for criticism, description, analysis, and critical evaluation of speeches and other forms of interpersonal communication.

COM 764 Communication Internship 1-6(Spec)
Designed to apply knowledge of and skills in speech communication within a supervised organizational context. Prerequisite: Prior written approval of internship coordinator.

COM 790 Advanced Independent Study 1-4(Spec)
Intensive study of some special problem under guidance of a faculty member or faculty committee. Prerequisites: permission of advisor and instructor.

COM 795 Seminar: Teaching College Communication 3(2-2)
Workshop/seminar in philosophies, strategies, and practices of teaching basic speech courses, directing communication programs, and applying theory at the college level. Prerequisites: 15 hours in speech communication and dramatic arts.

COM 798 Thesis 1-6(Spec)
CR/NC only.

**Course Descriptions: TAI**

**TAI 569 History of American Theatre 3(3-0)**
Development of drama and theater in America from colonial times to the present. Prerequisites: 6 hours of TAI coursework.

**TAI 570 Oral Interpretation of Prose Fiction 3(3-0)**
Specialized study of the short story and novel, in both individual and group performances. Prerequisites: one course in oral interpretation; one course in fictional literature.

**TAI 571 Oral Interpretation of Poetry 3(3-0)**
Specialized study of poetry. Prerequisites: one course in oral interpretation and one course in poetic literature.

**TAI 572 Special Topics in Oral Interpretation 1-9(Spec)**
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 9 hours. Prerequisite: one course in oral interpretation and/or a major in English.

**TAI 573 Seminar: Interpretative Reading 3(3-0)**
History of the art of interpretative reading, its current theories and possible trends. Prerequisite: one course in interpretative reading.

**TAI 574 History of Drama and Theatre I 3(3-0)**
Development of drama and theatre in Western Culture from ancient origins to 1700. Prerequisites: 6 hours of TAI coursework.

**TAI 575 History of Drama and Theatre II 3(3-0)**
Continuation of TAI 574, History of Drama and Theatre I. Development of drama and theatre in Western Culture from 1700 to 1945. Prerequisites: 6 hours of TAI coursework.

**TAI 577 Special Topics in Technical Theatre 1-9(Spec)**
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 9 hours. Prerequisites: Two from the following: TAI 177, TAI 278, TAI 377, TAI 477.

**TAI 578 Special Topics in Theatre 1-9(Spec)**
Current topics for each semester listed in the Phase I or II Class Schedule Booklet. 3 hours each; maximum credit 9 hours. Prerequisites: Two undergraduate courses in theatrical production.

**TAI 579 Costume Design and Construction 3(3-0)**
Concentration in the problems of design, pattern drafting, and construction of costumes for the theatre. Prerequisites: TAI 377; AMD 140.

**TAI 580 Dramatic Theory and Criticism 3(3-0)**
Analysis of significant theories of theatre and drama. Prerequisite: TAI 574 or TAI 575.

**TAI 581 Advanced Directing 3(3-0)**
Continuation of TAI 481, Directing. Emphasis on the rehearsal and performance of one-act plays for public presentation. Prerequisites: TAI 177 and TAI 481. Admission by approval of instructor only (contact CDA office for procedure).

**TAI 583 Women in the Contemporary American Theatre 3(3-0)**
Examines the contributions of women producers, directors, playwrights, actors, designers, and critics to the development of the contemporary American theatre. Prerequisites: 6 hours of TAI coursework.

**TAI 584 Field Course in Theatre 1-4(Spec)**
A travel course to metropolitan theatrical productions and institutions. Required are a pre-travel reading program and final reaction/evaluation paper.

**TAI 585 Creative Dramatics 3(2-2)**
Techniques of guiding children through original dramatizations. Primarily for the classroom teacher.

**TAI 586 Playwriting 3(3-0)**
Theory and practice in writing original plays; discussion and critical evaluation of student plays. Prerequisites: ENG 201; ENG 294 or one course in history of drama and theatre.

**TAI 588 Contemporary Theatre 3(3-0)**
Development of drama and theater in Western Culture from 1945 to the present. Prerequisites: 6 hours of TAI coursework.

**TAI 589 Theatre Workshop 2-6(Spec)**
Theoretical and practical work in productions of the University Theatre. Prerequisite: minimum of one course in theatre.

**TAI 590 Summer Repertory Theatre 3(3-0)**
Intensive practical theatre experience in the repertory situation under professional direction and guidance. Prerequisite: applicant admitted to course only through audition.

**TAI 602 Modern Performance Theory 3(3-0)**
Intensive examination of the growth and development of major assumptions underlying modern approaches to theatrical production.

**TAI 619 Continuing Registration for Final Research Project 1(1-0)**
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

**TAI 790 Advanced Independent Study 1-4(Spec)**
Intensive study of some special problem under guidance of a faculty member or faculty committee. Prerequisite: permission of advisor and instructor (and completion of form).

**TAI 798 Thesis 1-6(Spec)**
CR/NC only.

**Course Descriptions: DAN**

**DAN 530 History of Dance 3(3-0)**
Dance history from its primitive beginning to the present. Relationships of dance forms to the societies in which they developed.
Department of Communication Disorders (CDO, ASL)
The Herbert H. and Grace A. Dow College of Health Professions
(Audiology, Speech Language Pathology)
Renny H. Tatchell, Chairperson
989-774-3471, 2186 Health Professions
Laurie Bahike, Clinical Supervisor, Speech-Language Pathology; CCC-SLP; M.A., Central Michigan University. Dysphagia, traumatic brain injury, adult neurogenic, child speech and language.
Gerald Church, Professor and Director of Audiology Division; CCC-A; M.A. and Ph.D., Syracuse University. Acoustic reflex, acoustic immittance, auditory evoked potentials, electroneystagmography, diagnostic audiology, amplification, temporal auditory processing, hearing-science.
Frederick L. Hinebaugh, Clinical Supervisor and Coordinator of Summer Speech-Language Specialty Clinics, Communication Disorders; CSW, CCC-SLP; M.A., Wayne State University; M.A., Central Michigan University; Ph.D., Michigan State University. Pediatric communication disorders, neurolinguistics, infant-child development.
Jane Jack, Director of Clinical Instruction and Speech-Language Pathology Services; CCC-SLP; M.S.P., Arkansas State University. Administrative and regulatory issues in speech-language pathology, service delivery, child speech and language, and accent reduction.
Theresa Jones, Clinical Supervisor, Speech-Language Pathology; CCC-SLP; M.S., Howard University. Infant-toddler specialization, early intervention, sensory integration, pediatric traumatic brain injury, voice, multidisciplinary and transdisciplinary therapy.
Mark Lehman, Professor, CCC-SLP; M.A. and Ph.D., University of Michigan. Speech science, anatomy and physiology, dysarthria, voice in adults.
Susan Naeve-Velguth, Associate Professor; CCC-A; M.S. and Ph.D., University of Minnesota. Rehabilitative audiology, American Sign Language, speech and language development of children with hearing loss.
M. Dawn Nelson, Associate Professor; FAAA; CCC-A; M.S., University of Maryland; Ph.D., Vanderbilt University. Auditory electrophysiology, central auditory processing, vestibular assessment and rehabilitation, neuroanatomy.
Michael Nerbonne, Professor; CCC-A; M.A. and Ph.D., Michigan State University. Speech audiometry, aural rehabilitation of adults, communication disorders in the aging.
Ann Ratcliff, Professor and Director of Speech-Language Pathology Division; CCC-SLP; M.S., University of Redlands; Ph.D., University of Wisconsin. Child language development and disorders, craniofacial anomalies including cleft palate, augmentative and alternative communication.
Sandra Rayner, Director of Clinical Instruction and Audiology Services; CCC-A; Au.D., Central Michigan University; M.S., San Francisco State University. Pediatric audiology, auditory processing disorders, amplification.
Michael Stewart, Professor; CCC-A; M.A., Western Michigan University; Ph.D., Michigan State University. Hearing aids, hearing conservation, clinical supervision, private practice.
Janet Sturm, Associate Professor; CCC-SLP; Ph.D., University of Nebraska - Lincoln. Child language disorders, augmentative and alternative communication, literacy.
Bradford L. Swartz, Associate Professor; CCC-SLP; Ph.D., Michigan State University. Speech and hearing science, phonetics, dysphagia, anatomy.
Renny H. Tatchell, Professor and Chair; CCC-SLP; M.A. and Ph.D., University of Connecticut. Fluency and voice disorders, laryngectomee rehabilitation, neuroanatomy, anatomy and physiology.
Suzanne Woods, Associate Professor. Speech-Language Pathology; CCC-SLP; M.A. in Educational Administration, Central Michigan University; Ph.D., Michigan State University. Clinical supervision, fluency, programs for special populations, neurogenics, clinical procedures.

The Programs
The Department of Communication Disorders offers the Doctor of Audiology degree for audiologists and Master of Arts degree in Speech-Language Pathology for speech-language pathologists. The programs lead to clinical certification and are accredited by the American Speech-Language-Hearing Association’s (ASHA) Council on Academic Accreditation. Central Michigan University’s Speech-Language and Hearing Clinics, part of the Carls Center for Clinical Care and Education, are accredited by ASHA’s Council on Professional Services Accreditation. CMU recognizes the Department of Communication Disorders as a Graduate Center for Excellence.

The research facilities of the department are exemplary, extensive, and of high quality. Students are encouraged to participate in research and grant writing. A range of state-of-the-art instruments and software is available for specialized audimetric, acoustic and speech-language analyses.

Students and faculty study a wide range of speech, language, and hearing problems. The routine clinical population furnishes appropriate opportunities to carry out research projects, and many off-campus clinical facilities welcome student training and research activity. The clinic offers experiences in both individual and group treatment. There are opportunities available for pre-school placements within the speech-language clinic as well as clinical experience with those in need of augmentative and alternative communication services and endoscopic visualization of larynx for voice/swallow assessment. In addition, a number of students are afforded the opportunity to travel to local schools to work with school-aged children in programs which involve traditional speech and language therapy as well as phonemic awareness programs. Experiences with adult populations involve innovative therapy for all types of speech and language disorders, including those secondary to traumatic brain injury (TBI), aphasia and voice, among others. The Summer Speech-Language Specialty Clinics include a specialized five-week treatment program for children and adolescents with all types of communication disorders.

Each semester, a number of graduate students are awarded competitive assistantships. These awards may be renewed for students whose academic achievement and clinical skills warrant continued support. Stipend amounts vary, depending upon the funding source. Appointment to an assistantship qualifies graduate students for in-state tuition rates.

In order for prospective students to receive full consideration for admission and financial assistance, applications and all accompanying documents must be received by February 1 for both the Doctor of Audiology degree and the Master of Arts degree for Speech-Language pathology for entrance in the fall semester. There are no spring semester admissions. (Early applications are encouraged.) Admission to the graduate programs in CDO
is a competitive process. Neither successful completion of an undergraduate degree at CMU or another university, nor meeting the minimal entrance requirements of CDO or the College of Graduate Studies guarantees admission to the CDO graduate program. The number of students admitted each fall is governed by the number of available openings in the program.

### Scholarships

**CDO-SLP Alumni Scholarship**
Established in 1998 through alumni support, for a second-year graduate student in the speech/language pathology program in the Department of Communication Disorders.

**J. Dean and Betty L. Eckersley Audiology Scholarship**
Established in 1996 as a renewable scholarship for a graduate status audiologist student within the Department of Communication Disorders who earned a minimum GPA of 3.5 as 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 Department of Communication Disorders.

**Nicholas P. Redfield Scholarship**
Established in 1998 by colleagues in memory of Dr. Redfield for a third-year Au.D. doctoral student who demonstrates a "client-centered" approach in clinical performance. Volunteer work and efforts to better the audiology program at CMU will also be considered in selecting a candidate for this award.

### Master of Arts (M.A.) in Speech-Language Pathology

**Minimum Total for Graduation: 54 hours**

#### Admissions Requirements, Retention & Termination Standards

**Retention Standards**
All students pursuing the Master of Arts in Speech-Language Pathology degree must comply with the American Speech-Language-Hearing Association national certification requirements and maintain a 3.0 GPA. All students concentrating in speech-language pathology must complete a minimum of 400 hours of directly supervised clinical experience under the supervision of an ASHA certified supervisor during their undergraduate and graduate programs. Of these, a minimum of 325 hours must be completed at the graduate level. Each full-time graduate student will be expected to enroll in clinical practicum each semester. Various clinical duties will be assigned in consultation with the Director of Clinical Services. In addition, graduate students will be expected to participate in the Summer Speech-Language Specialty Clinics as a student clinician during the summer following their first year in the graduate program. Additional courses may be required, depending on the student’s academic background. The final determination of course requirements is made in consultation with the student’s academic guidance committee.

**Admission Standards**
In addition to the general university requirements, the student must have a grade point average of 3.0 or higher in the last 60 semester hours of undergraduate credit and a grade point average of 3.0 or higher with no grade lower than a C in the major courses or courses determined by CDO to be communication-disorders related. A student who does not meet the above requirements may be admitted to graduate study on a conditional basis.

### Capstone Experience

All speech-language pathology graduate students will complete a "capstone" experience prior to graduation. Students may choose in consultation with an advisor one of the following options:

1. Students will conduct a research project resulting in a thesis study.
2. Students will do a clinical internship at an off-campus site, and prepare a poster describing and analyzing an aspect of this experience.
3. Students will conduct a research project resulting in an independent study paper.

#### Required Courses (43-52 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CDO 513</td>
<td>Voice Disorders/Laryngectomy Rehabilitation 3(3-0)</td>
</tr>
<tr>
<td>CDO 535</td>
<td>Augmentative and Alternative Communication 3(3-0)</td>
</tr>
<tr>
<td>CDO 539</td>
<td>Stuttering 3(3-0)</td>
</tr>
<tr>
<td>CDO 638</td>
<td>Seminar: Adult and Pediatric Swallowing and Feeding Disorders 3(3-0)</td>
</tr>
<tr>
<td>CDO 704</td>
<td>Language Disorders in Pre-school Children 3(3-0)</td>
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<tr>
<td>CDO 708</td>
<td>Language Disorders in School-Age Children 3(3-0)</td>
</tr>
<tr>
<td>CDO 714</td>
<td>Motor Speech Disorders 3(3-0)</td>
</tr>
<tr>
<td>CDO 717</td>
<td>Aphasia &amp; Related Neurogenic Disorder 4(4-0)</td>
</tr>
<tr>
<td>CDO 730</td>
<td>Experimental Studies in Communication Disorders 3(3-0)</td>
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<tr>
<td>CDO 734</td>
<td>Acoustic Phonetics 3(3-0)</td>
</tr>
<tr>
<td>CDO 749</td>
<td>Clinical Practicum in Speech-Language Pathology or Audiology 1-15(Spec)</td>
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</tbody>
</table>

**Note 1:** CDO 513, 535, and 539 are required only if the student has not taken an equivalent course at the undergraduate level.

**Note 2:** Fifteen (15) hours of CDO 749 is required. Each full-time graduate student is expected to enroll in clinical practicum each semester for three (3) credits. Participation in the Summer Speech-Language Specialty Clinics is required during the summer following the first year in the graduate program.

Practicum coursework includes obtaining clock hours with clients. These clock hours are based upon student need as determined by the academic guidance committee and the Director of Clinical Services.

#### Additional Requirement
Select one of the following capstone experiences:

**Plan A**
- **Required Course (6 hours)** CDO 798 - Thesis 1-6(Spec)

**Plan B: Option 1**
- **Required Course (6 hours)** CDO 795 - Internship 3-6(Spec)

**Plan B: Option 2**
- **Required Course (3 hours)** CDO 790 - Advanced Independent Study 1-9(Spec)

#### Electives (0-8 hours)
Select from the following courses in consultation with student’s academic advisor and approval of student’s academic advising committee to bring total program credits to a minimum of fifty-four (54): CDO 537 - Special Topics in Communication Disorders 1-9(Spec) CDO 550 - Communication Assessment and Intervention in Children with Autism 3(3-0) CDO 632 - Counseling Issues in Communication Disorders 3(3-0) CDO 637 - Special Topics in Communication Disorders 3(Spec) CDO 639 - Hypopharyngeal Visualization 2(1-2) CDO 640 - Cadaveric Anatomy for Communication 3(2-2) CDO 702 - Infant-Toddler Communication: Assessment and Intervention 2(2-0) CDO 705 - Traumatic Brain Injury 2(2-0)

(continued)
CDO 711 - Craniofacial Disorders 2(2-0)  
CDO 740 - Neuroanatomy 3(3-0)  
CDO 790 - Advanced Independent Study 1-9(Spec)  
Total: 54 semester hours

**Doctor of Audiology (Au.D.)**

**Minimum Totals for Graduation: 115 hours**

**Audiology, Post Baccalaureate**

Doctors of Audiology are highly skilled in the wide array of diagnostic, remedial and related areas associated with hearing-impaired persons and their families. Although the Au.D. is not a research-oriented degree, students will acquire the knowledge and skills requisite to evaluate/interpret the existing literature, and will be required to synthesize and apply pertinent research knowledge to clinical practice and personal research activities. The first two years of study are devoted primarily to the mastery of the audiological knowledge base. Clinical experience evolves in scope and complexity, with the final two years heavily weighted toward clinical training in a variety of settings with practicing audiologists.

**Admission Requirements, Retention & Termination Standards**

**Admission**

The deadline for receipt of all application materials is February 1st for the professional doctoral (Au.D.) program in Audiology. Admission requirements may be obtained from the Department of Communication Disorders.

The admissions committee will consider the applicant's undergraduate transcript, GRE scores and letters of recommendation. In addition, personal statements and relevant professional experiences will be considered. Applicants from non-English speaking countries must also submit a minimum score of 600 on the TOEFL. Since an audiologist interacts with patients, an applicant's maturity and interpersonal skills will also be considered. After the initial screening of paper credentials, an interview with each of the most qualified applicants will be used to select the final candidates for admission.

Students normally are accepted into the program on a full-time basis and maintain a course load of approximately 13 credit hours per semester. Exceptions to this are considered on a case by case basis. Each student is assigned a faculty advisor, who will help the student in course selection and monitor his/her progress through the program.

**Retention Standards**

Progress through the program is based upon compliance with university grading standards. In addition, the student must successfully pass comprehensive examinations at the end of his/her third year of the program in order to enroll in CDO 995.

The Au.D. degree will be awarded upon successful completion of course work, clinical practicum, comprehensive examination, doctoral project defense, and clinical residency requirements.

Although the curriculum has the flexibility to incorporate the latest advances in the field of audiology, the current curriculum requirements are listed below under Degree Requirements in order of the year they are typically taken.

Students will be placed on probation for:

1. Any grade below a C (2.0) or NC (No credit) in any course required in the Au.D. curriculum.  
2. A semester GAP below 3.0 for courses required in the Au.D. curriculum.  
3. A cumulative GPA below 3.0 for any semester.

**Termination Standards**

Students may be dismissed from the program for:

1. Failure to satisfactorily complete remedial work required to be taken off probation within one calendar year.  
2. Failure to satisfactorily complete a repeated course at a level of C (or above) or CR (credit) for CR/NC courses the next time the course is offered.  
3. Failure (grade of C- or E) of any three courses (academic or on-campus practicum) on the Au.D. curriculum.  
4. A final grade of failure on the comprehensive examinations may result in dismissal. A failure final grade on the comprehensive examinations means that the student has failed a rewrite and oral examination of one or more of the comprehensive questions. Determination of whether to retain or dismiss the student from the program will be reached by a majority vote of the faculty/staff of Audiology.  
5. Failure to successfully complete any assigned academic or clinical remediation after completion of the comprehensive examinations.  
6. Failure (NC) of any of the fourth year clinical externship courses.  
7. Students who display a lack of professionalism conduct and/or any behavioral patterns that may jeopardize the safety or well being of patients or others.  
8. Students who participate in unethical or illegal activity including, but not limited to, academic dishonesty or violations of the AAA and/or ASHA Code of Ethics.

**Degree Requirements**

**Required Courses I (36 hours)**

The following courses should be taken in the first year:

- CDO 643 - Disorders of Hearing 3(3-0)  
- CDO 720 - Anatomy and Physiology Underlying Neuro-otology 3(3-0)  
- CDO 730 - Experimental Studies in Communication Disorders 3(3-0)  
- CDO 731 - Diagnostic Audiology 3(3-0)  
- CDO 740 - Neuroanatomy 3(3-0)  
- CDO 751 - Speech Audiometry 3(3-0)  
- CDO 752 - Amplification for the Hearing Impaired 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 771 - Advanced Auditory Assessment 3(3-0)  
- CDO 777 - Advanced Auditory Assessment 3(3-0)

**Required Courses II (33 hours)**

The following courses should be taken in the second year:

- CDO 750 - Advanced Hearing Science 3(3-0)  
- CDO 754 - Pediatric Audiology 3(3-0)  
- CDO 763 - Audiological Rehabilitation Considerations in Education 3(3-0)  
- CDO 764 - Audiologic Rehabilitation for Adults 3(3-0)  
- CDO 769 - Intermediate Clinical Practicum: Audiology 3-9(Spec)  
- CDO 773 - Advanced Amplification Fitting Strategies 3(2-2)  
- CDO 781 - Electrophysiological Techniques in Audiology 3(2-2)  
- CDO 783 - Advanced Electrophysiological Techniques in Audiology 3(3-0)  
- CDO 853 - Psychosocial Aspects of Hearing Loss 3(3-0)
Admission Requirements, Retention and Termination Standards

Note: Effective May 31, 2006, applications are no longer being accepted for the Doctor of Audiology program offered through Off-Campus Programs.

Admission

1. Applicants must have a graduate degree in a field related to Audiology. For U.S. applicants, a valid state license to practice Audiology or national certification, such as that offered by the American Speech-Language-Hearing Association (CCC-A) or the American Academy of Audiology, is also required. For applicants from outside the U.S., the applicant must have certification or licensure at the applicant's practice location.

2. Applicants must be certified or licensed as an audiologist and have worked full-time (40 hours/week) as an audiologist for the past three years. Applicants working less than full-time must be certified or licensed and have worked as an audiologist for at least four of the past five years.

3. Applicants with a graduate degree must have a minimum GPA of 3.0 in their previous Audiology graduate work; or, for applicants from outside the U.S., a minimum GPA of 3.0 in all Audiology coursework.

4. Applicants must submit three letters of support.

5. Applicants from non-English speaking countries must achieve a minimum score of 600 (250 CBT) on the Test of English as a Foreign Language (TOEFL).

Program Requirements

Successful completion of the Au.D. requires a minimum of 36 hours of course work beyond the master's degree and a GPA of 3.0 or better. At least 24 of the 36 hours must be earned at the 600 level or above and at least 18 of the last 21 hours earned at the 700 level or above. Students must successfully pass a comprehensive examination in order to graduate.

Students must complete CDO 898 - Doctoral Project for a total of 6 credit hours. The doctoral project will be an evidenced-based endeavor designed to enhance the student's capacity to be a critical consumer of audiologic research and to create and opportunity for the student to engage in an in-depth study of an area of Audiology. Students may enroll for CDO 898 as variable credit in blocks ranging from 1-6 credit hours. Concurrent with enrollment in CDO 898, the student will select a doctoral project advisor who must have graduate faculty status at Central Michigan University. Prior to initiating the doctoral project, it must be approved by the Division of Audiology Doctoral Project Committee. Upon completion of the doctoral project, the student must submit it to the Division of Audiology Doctoral Project Committee in an acceptable format.

CDO 995: 5 credit hours of CDO 995 in year 3.

Required Courses IV (18 hours)

The following course should be taken in the fourth year:

CDO 995 - Clinical Externship 5-23(Spec)

Note: 18 credit hours of CDO 995 in year 4 (9 each semester).

Total: 115 semester hours

Doctor of Audiology (Au.D.)

Minimum Totals for Graduation: 36 hours

Audiology, Post Master's

For students who have a graduate degree in a field related to Audiology. This is an Off-Campus Program.

Electives (21 hours)

The student and an Advisory Committee, comprised of at least two faculty members from the Division of Audiology, will develop jointly a sequence of elective courses. As a minimum, this sequence consists of 21 credit hours selected primarily from course offerings within the Au.D. curriculum; however, upon review of the student's previous graduate coursework, professional experiences and continuing education, additional courses (such as CDO 849) beyond the 21 credit hour minimum may be assigned to the student's program.

Total: 36 semester hours
Course Descriptions: CDO

CDO 513 Voice Disorders/Laryngectomee Rehabilitation 3(3-0)
This course covers etiology, types, evaluation, and treatment of persons with voice disorders and laryngectomees. Prerequisites: 30 hours of undergraduate coursework in CDO or admission to the graduate program in SLP.

CDO 530 Speech and Hearing Problems of School Children 3(3-0)
Survey for classroom teachers. Recognition and evaluation of the several types of speech and hearing defects. Not open to majors in CDO.

CDO 535 Augmentative and Alternative Communication 3(3-0)
Assessment and treatment of communications disorders resulting from multiple deficits originating from neurological, neuromuscular, sensory, and cognitive disorders. Verbal and nonverbal management approaches are considered. Prerequisites: 30 hours of undergraduate coursework in CDO or admission to the graduate program in SLP.

CDO 537 Special Topics in Communication Disorders 1-9(Spec)
Current topics for each semester listed in the Class Schedule. 3 hours each; maximum credit 9 hours.

CDO 539 Stuttering 3(3-0)
Overt and covert characteristics of stuttering behavior including their prevention, etiology, and modification. Prerequisites: 30 hours of undergraduate coursework in CDO; admission to the graduate program in SLP.

CDO 545 Communication Disorders and Aging 3(3-0)
Theoretical foundations for communication disorders and aging. Functional communication approaches to: gerontological audiology and speech-language pathology; a continuum of care incorporating prevention and intervention.

CDO 550 Communication Assessment and Intervention in Children with Autism Spectrum Disorders 3(3-0)
This course examines procedures for assessment of communication, language, and speech of students with autism spectrum disorders, and reviews strategies for enhancing communication and language. Prerequisites: SPE 530 Autism Spectrum Disorders; Characteristics and Etiology, and senior or graduate status.

CDO 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

CDO 632 Counseling Issues in Communication Disorders 3(3-0)
Review of theory and practice of counseling methods and techniques to be used by speech-language pathologists in clinical practice. Prerequisites: Admission to the graduate program in speech-language pathology.

CDO 637 Special Topics in Communication Disorders 3(Spec)
Current topics for each semester listed in the Class Schedule. Maximum credit 9 hours. Prerequisite: admission to the graduate program in speech-language pathology.

CDO 638 Seminar: Adult and Pediatric Swallowing and Feeding Disorders 3(3-0)
Study of direct and indirect evaluation and treatment of swallowing disorders in patients with neuromuscular disorders, oral, pharyngeal, laryngeal cancer and pediatric feeding disorders. Prerequisites: admission to the graduate program in speech-language pathology.

CDO 639 Hypopharyngeal Visualization 2(1-2)
Practice in manipulation of instrumentation used in visualizing hypopharyngeal structures. Assessment of laryngeal functions for voice and swallowing based on visual images.

CDO 640 Cadaveric Anatomy for Communication 3(2-2)
The dissection course will cover the anatomy and neuroanatomy which pertains to the head and neck. In relation to articulation, phonation, and respiration for speech. Prerequisites: CDO 335 and admission to the graduate program in speech-language pathology.

CDO 643 Disorders of Hearing 3(3-0)
Disorders resulting from diseases, injury of the ear, and lesions of the nervous system from the point of view of audiometric diagnosis. Prerequisite: admission to the Au.D. Program. This course is approved for offering in a distance learning format.

CDO 702 Infant-Toddler Communication: Assessment and Intervention 2(2-0)
Course reviews normal communication development from birth to three years, describes high-risk populations, and provides information for assessing and intervening with infants and their families. Prerequisites: CDO 130; and admission to the graduate program in speech-language pathology.

CDO 704 Language Disorders in Preschool Children 3(3-0)
Course includes identification, assessment of, and intervention for communication and language delays in children, with focus on three to five year olds. Prerequisites: CDO 340; and admission to the graduate program in speech-language pathology.

CDO 705 Traumatic Brain Injury 2(2-0)
An introduction to traumatic brain injury with emphasis on medical aspects, behavioral sequela, and cognitive-communicative disorders related to closed head injury. Prerequisites: CDO 335; and admission to the graduate program in speech-language pathology.

CDO 708 Language Disorders in School-Age Children 3(3-0)
Study of normal and disordered language and cognitive processes, as they relate to school age children. Prerequisites: CDO 704; admission to the graduate program in speech-language pathology.

CDO 711 Craniofacial Disorders 2(2-0)
Study of a variety of craniofacial anomalies including cleft lip and palate. Topics to include etiology, evaluation, and treatment from an interdisciplinary perspective. Prerequisites: admission to the graduate program in speech-language pathology.

CDO 712 Physiological Phonetics 2(2-0)
Use of basic equipment in physiological analysis of articulation, phonation, respiration, resonance, and swallowing. Discussion of relevant research and implications for clinical work. Prerequisites: admission to the graduate program in speech-language pathology.

CDO 714 Motor Speech Disorders 3(3-0)
Advanced study in the diagnosis and treatment of motor speech disorders in children and adults. Prerequisites: CDO 335; and admission to the graduate program in speech-language pathology.
CDO 717 Aphasia & Related Neurogenic Disorder 4(4-0)
Study of theoretical framework and intervention procedures for aphasia and communication disorders in other neurogenic disorders including right hemisphere dysfunction, dementia, and traumatic brain injury. Prerequisites: CDO 335 and admission to the graduate program in speech-language pathology.

CDO 720 Anatomy and Physiology Underlying Neurootology 3(3-0)
In-depth study of the anatomy/physiology of the auditory and vestibular systems. Prerequisites: admission to the Au.D. program.

CDO 721 Audiological Aspects of Pharmacology and Microbiology 3(3-0)
Principles of microbiology and bacterial pathogenesis important to audiology, antibiotic therapy for ear infections, common adverse effects, antibiotic resistance, and strategies that minimize pathogen transmission. Prerequisites: admission to the Au.D. program. This course is approved for offering in a distance learning format.

CDO 730 Experimental Studies in Communication Disorders 3(3-0)
Selection of a research topic: study of designs, scaling methods, statistics and computer analysis of research in audiology and speech-language pathology; preparation of a prospectus, and critical review of research literature in communication disorders. Prerequisite: admission to the graduate program in speech-language pathology or audiology.

CDO 731 Diagnostic Audiology 3(3-0)
Rationale and application of specialized procedures used in the assessment of hearing function. Advanced study of diagnostic methods. Prerequisite: admission to the Au.D. Program.

CDO 734 Acoustic Phonetics 3(3-0)
Operation of basic laboratory equipment used in acoustical research, and the reading and discussion of significant publications on phonetics. Prerequisites: CDO 463; and admission to the graduate program in speech-language pathology.

CDO 736 Phonological Disorders in Children 3(3-0)
Advanced study of the diagnostic and treatment phonological disorders in children. Prerequisites: CDO 338 and admission to the graduate program in speech-language pathology.

CDO 740 Neuroanatomy 3(3-0)
Comprehensive study of the central nervous system, emphasizing the structural and functional organization of the human brain underlying communication disorders. Prerequisites: CDO 335 and graduate status.

CDO 741 Special Topics in Audiology 1-9(Spec)
Current topics for each semester listed in the Class Schedule. 3 hours each; maximum credit 9 hours. Prerequisites: admission to the Au.D. Program.

CDO 744 Occupational and Environmental Hearing Conservation 3(3-0)
Effects of noise as a health hazard especially related to hearing. Government regulations regarding noise levels in vocational environments. Prerequisites: admission to the Au.D. Program. This course is approved for offering in a distance learning format.

CDO 749 Clinical Practicum in Speech-Language Pathology or Audiology 1-15(Spec)
Experience in clinical practices and applicable documentation with various types of clinical profiles in different settings inclusive of educational and medical speech-language pathology. Up to 15 credits earned in this course will not count in the variable credit total. Prerequisites: Admission to the graduate program in speech-language pathology, completion of 25 hours of clinical observation under the supervision of an ASHA certified speech-language pathologist, and a grade point average (GPA) of at least 3.0 in the CDO graduate courses.

CDO 750 Advanced Hearing Science 3(3-0)
Study of principles and concepts basic to the understanding of the normal hearing process. Prerequisite: admission to the Au.D. program.

CDO 751 Speech Audiology 3(3-0)
Study of topics related to speech audiology including speech acoustics, speech perception, threshold and discrimination measures, and development of assessment stimuli. Prerequisites: admission to the Au.D. Program.

CDO 754 Pediatric Audiology 3(3-0)
Study and evaluation of auditory function of neonates, infants, and young children. Prerequisite: admission to the Au.D. Program. This course is approved for offering in a distance learning format.

CDO 755 Early Identification and Management of Hearing Loss 3(3-0)
Principles underlying early hearing detection and intervention programs including universal newborn screening, assessment and management of hearing loss. Prerequisites: admission to the Au.D. program and CDO 754. This course is approved for offering in a distance learning format.

CDO 759 Introduction to Clinical Practicum: Audiology 3-9(Spec)
An introductory experience to clinical practicum in audiology. Prerequisites: admission to the Au.D. program.

CDO 762 Advanced Amplification for the Hearing-Impaired 3(3-0)
Advanced study of amplification for the hearing-impaired including special clinical procedures, research needs, and evolving technology in hearing instruments. Prerequisites: admission to the Au.D. program and CDO 752. This course is approved for offering in a distance learning format.

CDO 763 Audiological Rehabilitation Considerations in Education 3(3-0)
Study of management, educational placement, and remediation strategies for hearing-impaired children. Prerequisites: admission to the Au.D. program. This course is approved for offering in a distance learning format.

CDO 764 Audiologic Rehabilitation for Adults 3(3-0)
Focuses on the audiological management of hearing loss in adults. Assessment of communication function and implementation of appropriate remedial strategies are emphasized. Prerequisites: admission to the Au.D. program and CDO 763. This course is approved for offering in a distance learning format.
CDO 769 Intermediate Clinical Practicum: Audiology 3-9(Spec)
Clinical practicum providing for the independent performance of basic audiologic procedures, including hearing aid management. Prerequisites: admission to the Au.D. program, completion of CDO 759.

CDO 771 Advanced Auditory Assessment 3(3-0)
Study of advanced diagnostic techniques including acoustic immittance, acoustic reflex and otoacoustic emissions. The clinical management of various disordered clients will be discussed. Prerequisites: admission to the Au.D. program, CDO 731, CDO 751.

CDO 772 Advanced Technology & Practice Aspects of Amplification 3(3-0)
Examination of current and future technologies that relate to amplification and their potential for impact on both clinical and research domains. Prerequisites: admission to the Au.D. program, CDO 752, CDO 762. This course is approved for offering in a distance learning format.

CDO 773 Advanced Amplification Fitting Strategies 3(2-2)
Advanced concepts in the adjustment of electroacoustic characteristics of conventional, programmable and digital hearing aid circuits for the purpose of selecting appropriate amplification. Prerequisites: admission into the Au.D. program, CDO 752, CDO 762.

CDO 781 Electrophysiological Techniques in Audiology 3(2-2)
Study of evoked responses used in diagnostic audiology. Includes ABR, AMLR, ECochG, ALR, P300, ENOG, VER and SSER. Prerequisites: CDO 771, admission to the Au.D. program.

CDO 782 Evaluation and Management of Balance Disorders 3(3-0)
A review of the anatomy, physiology of balance, differential diagnostic procedures such as electroneystagmography, posturology and rotational testing, and the rehabilitation of the balance disordered patient. Prerequisites: admission to the Au.D. program. This course is approved for offering in a distance learning format.

CDO 783 Advanced Electrophysiological Techniques in Audiology 3(3-0)
Advanced audiological diagnostic techniques used for electric and Magnetic ABR, Brain Mapping, AMLR, ALR, P300, MMN, ENOG, SSER & VER. Prerequisites: admission to the Au.D. program, CDO 781. This course is approved for offering in a distance learning format.

CDO 785 Auditory Processing Disorders 3(3-0)
Principles underlying neuroanatomic and neurophysiologic bases of auditory processing and auditory processing disorders, behavioral and electrophysiologic assessment strategies, and management of auditory processing disorders. Prerequisites: admission to the Au.D. program. This course is approved for offering in a distance learning format.

CDO 790 Advanced Independent Study 1-9(Spec)
Intensive study of a subject area initiated by the student and guided by faculty member or faculty committee. Prerequisites: permission of advisor and instructor and completion of CDO independent study form. Students can take no more than 3 credits at one time.

CDO 795 Internship 3-6(Spec)
Full-time clinical experience with an approved supervisor in hospital, private practice, school, or other appropriate setting. CR/NC only. Prerequisites: admission to the graduate program in speech-language pathology.

CDO 798 Thesis 1-6(Spec)
CR/NC only.

CDO 849 Advanced Clinical Practicum: Audiology 4-12(Spec)
Clinical practicum which encompasses the entire range of audiologic procedures including rehabilitation. Prerequisites: admission to the Au.D. program, completion of CDO 769.

CDO 853 Psychosocial Aspects of Hearing Loss 3(3-0)
An investigation into the advising role of the audiologist with persons having hearing impairment. Psychological, social, and vocational aspects of hearing loss are emphasized. Prerequisites: admission to the Au.D. program. This course is approved for offering in a distance learning format.

CDO 863 Professional Issues in the Practice of Audiology 3(3-0)
Issues of a professional nature which impact on the practice of audiology. Topics include accreditation/certification, quality assurance, reimbursement, establishing a private practice, and professional liability. Prerequisites: admission to the Au.D. program. This course is approved for offering in a distance learning format.

CDO 898 Doctoral Project 1-12(Spec)
Doctoral project. CR/NC only. This course is approved for offering in a distance learning format. Prerequisites: admission to the Au.D. program, CDO 730.

CDO 995 Clinical Externship 5-23(Spec)
Full-time clinical experience with an approved preceptor in a hospital, private practice or other appropriate setting. CR/NC only. Prerequisites: Admission to the Au.D. program, CDO 849, CDO 898.

Course Descriptions: ASL

ASL 510 ASL Linguistics 3(3-0)
This course will examine the linguistics of American Sign Language. Topics will include the form, content and use of ASL; the relationship between ASL, spoken languages, and other signed languages; ASL acquisition; and historical change in ASL. Prerequisites: ASL 100, ASL 202.

ASL 590 Independent Study 1-4(Spec)
Student-initiated study of a topic related to the ASL minor guided by a faculty member or faculty committee. Prerequisites: ASL 100, ASL 202, permission of instructor.

ASL 595 Community Placements with Deaf Children and Adults 3(1-3)
Students apply their American Sign Language skills and knowledge of Deaf culture by working in community placements with Deaf children and/or adults. Prerequisites: ASL 202; ASL 100 or 390; and permission of instructor.

ASL 599 Special Topics 1-3(Spec)
Study of a selected topic, specific application, or current issue related to but not covered by the ASL Minor curriculum. Prerequisites: ASL 100, ASL 202, permission of instructor.
Department of
Computer Science (CPS)

College of Science and Technology

Michael C. Stinson, Chairperson
413 Pearce Hall, (989) 774-3774

Thomas E. Ahlswede, Ph.D., Natural Language Processing, Computer Graphics
Paul Albee, Ph.D., Volumetric Data Analysis
Hari Bidasari, Ph.D., Computer Graphics
Gongzhu Hu, Ph.D., Databases, Distributed Programming, Pattern Recognition
Patrick Kinnicut, Ph.D., Geostatistics, Science Informatics
Roger Y. Lee, Ph.D., Ph.D., Software Engineering, Object-oriented Modeling
S. N. Jayaram Murthy, Ph.D., Multimedia, Pattern Recognition, Data Mining
Ishwar Rattan, Ph.D., Operating Systems, Distributed Processing
Neelim Shrikhande, Ph.D., Artificial Intelligence, Computer Vision, Image Processing
Lal P. S. Singh, Ph.D., Databases, Intelligent Tutoring Systems
Michael C. Stinson, Ph.D., Neural Networks, Software Engineering
Ahmet Ugu, Ph.D., Evolutionary Programming, Generic Logarithms, Biocomputing

The Program
The graduate programs in computer science are supported by a UNIX lab, 3 PC labs and dedicated laboratories for computer graphics, databases, operating systems, networks, and software engineering. In addition, the university's computer network is available. Some graduate assistantships are available; the application deadline is February 15 for fall and October 1 for spring. Research assistantships may be available depending on funding.

Master of Science (M.S.) in Computer Science

Minimum Totals for Graduation: 36 hours

Admissions Requirements, Retention and Termination Standards
Conditional admission may be granted upon completion of a bachelor's degree, including a two semester sequence in a modern programming language with elementary data structures (CPS 180, CPS 181), from an accredited institution with a minimum overall grade point average of 3.0 in the last two years of study, as well as in the programming courses. International students are required to demonstrate English competency. (See section on English Language Competency in this Bulletin).

Regular admission is granted to students who meet the above conditional requirements and have completed the following or the equivalent:
Assembly Language and Computer Organization (CPS 210)
Advanced Data Structures and Algorithms (CPS 340)
Computer Design and Architecture (CPS 360)
Programming Language Concepts (CPS 450)
Introduction to Operating Systems (CPS 470)
Calculus I (MTH 132)
Discrete Mathematics (MTH 175)

Conditionally admitted students who have not met all these requirements will be required to get the department chairperson's permission to register in each graduate course.

CPS 502 could be taken to satisfy the prerequisite requirements in block structured language with elementary data structures. CPS 503 could be taken to satisfy the prerequisite requirements in assembly language and computer organization, design, and architecture.

Students are required to achieve a minimum grade point average of 2.5 in the above-listed courses.

Degree Requirements
Required Courses (9 hours)
CPS 542 - Analysis and Design of Algorithms 3(3-0)
CPS 650 - Theory and Practice of Compiler Construction 3(3-0)
CPS 670 - Operating Systems 3(3-0)

Other Requirement
Select either Plan A or Plan B.

Plan A Requirement (6 hours)
The 36-hour requirements include 30 hours of coursework, a Masters thesis of 6 hours (CPS 798), and an oral examination on the thesis. For Masters thesis, a Thesis Committee shall be formed according to the procedure outlined in the Thesis, Field Study, or Dissertation section of College of Graduate Studies Bulletin.
CPS 798 - Thesis 1-6(Spec)

Plan B Requirement
The 36-hour requirements include 36 hours of coursework and a Plan B Project. A student must complete a substantial written report in computer science or an application of computer science for the Plan B project. Copies of procedures for such projects are available from the department chairperson. The project will ordinarily include a significant original programming component with a written defense of the programming component and must include evidence of scholarly and creative ability. The project must be supervised while in progress and approved by a committee of two faculty members.

Electives (21-27 hours)
Among the remaining 27 semester hours of electives, at least 21 hours must have the CPS designator. Electives from related areas are selected with approval of the CPS advisor.

Total: 36 semester hours

Notes:
At least 15 semester hours of courses must be at 600-level or above.
A student who satisfied any of the course requirements prior to entering the program may be excused from that course requirement. However, the 36-hour requirement will not be affected.

ACCELERATED MASTER OF SCIENCE IN COMPUTER SCIENCE
Undergraduate students in Computer Science can pursue a Master of Science program in Computer Science while still fulfilling the requirements for their Bachelor's degree. The Accelerated Master's Degree Program (AMDP) which was recently approved at CMU allows students to reduce the total number of credits required to complete their undergraduate and graduate level degrees by applying up to 12 credits (500 and 600 level courses) towards graduation requirements on both degree programs.

(continued)
Admission Criteria:
To be eligible for the accelerated program, a student must have completed a minimum of 90 credits (including transfer and/or AP credits) towards a Bachelor’s degree, including all University Program requirements. An overall grade point average (GPA) of at least 3.25 is required, as well as a minimum of 3.00 in Computer Science course work. In addition, students must satisfy all requirements for regular admission to the Master’s program in Computer Science, with the possible exception of completing CPS 450 and 470 courses, which may be completed during the senior year.

During the fourth year, students will complete 12 credits of graduate level course work (excluding independent study credits) that will be counted towards both the undergraduate and graduate degrees. In addition, students will take either CPS 450 and 470 or 6 hours of CPS electives. Other courses may be taken to complete Bachelor of Science degree requirements. Students will complete the course work required for a Master of Science degree and complete either Plan A or Plan B option by the end of the fifth year.

A sample curriculum for a student who has completed 90 credit hours of undergraduate course work is given below:

Sample Curriculum for Plan A or Plan B option:
Year Four
Fall (15 hours):
CPS 542 (Elective for BS, required for MS) - 3 hours
CPS Elective or CPS 450 - 3 hours
Undergraduate Courses - 9 hours
Spring (15 hours):
CPS Elective or CPS 470 - 3 hours
Other BS Requirement - 3 hours
CPS electives for both BS and MS - 9 hours
Summer (3 hours):
UG Courses - 3 hours (if necessary?)
Year Five
Fall (12 hours):
CPS 670 (required for MS) - 3 hours
Electives for MS* - 9 hours
Spring (12 hours):
CPS 650 (Required for MS) - 3 hours
Electives for MS* - 9 hours

*Note: Students may complete CPS 798 - 6 hours over the course of two semesters for the MS Plan A Option.

Certificate in Data Mining
This is an interdepartmental graduate certificate. Please check the index for the page number.

Course Descriptions: CPS

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. This course is approved for offering in a distance learning format.

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. This course is approved for offering in a distance learning format.

CPS 503 Digital Design & Computer Organization Using Assembly Language 3(3-0)
Introduction to organization of a digital computer. Design of digital circuits. Assembly language programming. Does not count toward any degree program in Computer Science. Prerequisite: conditional admission into CPS M.S. program.

CPS 510 Software Systems Engineering 3(3-0)
Covers requirements analysis and techniques to develop a system from those requirements. Credit will not be given for both CPS 410 and CPS 510. Does not count for the M.S. in Computer Science. Prerequisites: CPS 340; MTH 175. This course is approved for offering in a distance learning format.

CPS 530 Simulation of Discrete Event Systems 3(3-0)
Development of computer models for discrete systems using computer simulation languages. Performance evaluation of computer, industrial and engineering systems. Prerequisite: CPS 181; STA 282 or STA 382.

CPS 531 Distributed Programming 3(3-0)
Study of design and implementation issues in distributed programming, including event model, networking, database connectivity, remote method invocation, servlet, XML, and security. Prerequisite: CPS 340. Recommended: CPS 280J.

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 360.

CPS 565 Computer Networks I 3(3-0)

CPS 575 Computer Graphics 3(3-0)
Representation of line drawings, handwritings, and three-dimensional surfaces in computers. A plotter and graphics terminal are used. Prerequisites: CPS 181 or MTH 223.

CPS 576 Digital Image Processing 3(3-0)

CPS 585 Applied Data Engineering 3(3-0)
Study of data engineering concepts and techniques, including data preparation, storage and warehousing, analysis and mining, security, visualization, and applications. Use of data analysis tools. Prerequisites: STA 382.
CPS 590 Computer Applications In Educational Administration 3(3-0)
Use of computers in managing educational resources and programs. Hands-on instruction in use of existing systems. How to design and implement new systems. Does not count on CPS majors or minors except for teacher certification program. Prerequisite: CPS 501.

CPS 591 Computer Application In Classroom Instruction 3(3-0)
Software evaluation and hardware selection. Modes of computer-based instruction. Introduction to CAI and authorizing systems. Simulation/gaming for instructional purposes. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 592 Computer Science Content for Elementary Teachers 3(3-0)
Introduction to procedural thinking skills. Programming in BASIC and LOGO. Overview of computer architecture at a functional level. Use of binary and hexadecimal numbering systems. Does not count on CPS majors or minors except for teacher certification programs. Prerequisite: CPS 501.

CPS 596 Special Topics In Computer Science 1-6(Spec)
May be taken for credit more than once but total credit earned in CPS 596 may not exceed 6 semester hours. Prerequisite: permission of instructor.

CPS 597 Independent Study 1-6(Spec)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours.

CPS 603 Computer Information Systems 3(3-0)
Growth stages of computer usage, information flow, role of MIS manager in providing information to an organization. Does not count on the M.S degree in computer science. Prerequisite: CPS 501. This course is approved for offering in a distance learning format.

CPS 610 Advanced Software Design and Development 3(3-0)
Advanced topics in software engineering. Developing a large software system using modern software engineering techniques including object-oriented programming and CASE tools. Prerequisite: CPS 410.

CPS 611 Software Verification and Validation 3(3-0)
Software verification and validation techniques are introduced and their applicability discussed. In-depth study of verification and validation area. Does not count for the MS in Computer Science. Prerequisites: CPS 510 and MTH 175.

CPS 612 Software Project Management 3(3-0)
Software engineering process, software project organization and management issues, software project economics, software quality assurance, software configuration management, software operations issues. Does not count for MS in Computer Science. Prerequisites: CPS 510. This course is approved for offering in a distance learning format.

CPS 613 Specification of Software Systems 3(3-0)
Formal models and representations. Specification techniques and tools that support them. Assessment of specification for attributes such as consistency and completeness. Does not count on the MS in Computer Science. Prerequisites: CPS 510 and MTH 175.

CPS 614 Principles and Applications of Software 3(3-0)
Covers several different methods and languages for expressing designs. The process of assessment is also covered. Does not count for the MS in Computer Science. Prerequisites: CPS 510 and MTH 175.

CPS 615 Software Generation and Maintenance 3(3-0)
Techniques for performing software generation and maintenance. Alternatives to coding, language concepts, the role of standards and style, the role of tools, performance analysis, regression analysis, other maintenance-specific subjects. Does not count for the MS in Computer Science. Prerequisites: CPS 510.

CPS 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

CPS 640 Theory of Automata and Formal Languages 3(3-0)
Introduction to theory of Automata (FA, PDA, Turing Machines) and theory of formal languages (RE, CFL, CSL, etc.) and their relationships. Chomsky Hierarchy. Undecidability. Prerequisites: CPS 340.

CPS 641 Advanced Topics in Databases 3(3-0)
Conceptual models. Relational theory. Access methods, query optimization. Concurrency Integrity. Selected current topics, e.g., distributed, temporal, and object-oriented databases. Student projects; literature review. Prerequisite: CPS 541.

CPS 650 Theory and Practice of Compiler Construction 3(3-0)
Automata theory, context-free languages, syntax analysis and parsing techniques. Semantic processing for structured and/or object-oriented programming languages. Code generation and optimization. Prerequisite: CPS 450.

CPS 660 Advanced Computer Organization 3(3-0)
Calculator and minicomputer design, organization of computer software and hardware interface, concept of microprogramming and microprocessor design, multiprocessing and pipeline processing. Prerequisite: CPS 360.

CPS 665 Computer Networks II 3(3-0)
Principles, design, implementation, performance, security issues and areas of current research in computer networks. Prerequisites: CPS 565; STA 382.

CPS 670 Operating Systems 3(3-0)
Concepts, communication, synchronization, processes, and processors in distribution systems. Distributed file systems. Distributed shared memory systems. Prerequisite: CPS 470.

CPS 675 Advanced Topics in Computer Graphics 3(3-0)
Detailed study of selected advanced topics in computer graphics. Prerequisite: CPS 575.

CPS 676 Computer Vision 3(3-0)
Introduction to basic issues in computer vision, early processing, boundary detection; texture, motion and color; representation of 2-D, 3-D structures; knowledge-based vision systems. Prerequisites: CPS 576, (CPS 680 desired, but not required).

CPS 680 Artificial Intelligence 3(3-0)
CPS 681 Advanced Topics in Artificial Intelligence 3(3-0)
Advanced topics in artificial intelligence including topics from expert systems, natural language processing, automated reasoning, and other areas. Prerequisite: CPS 680.

CPS 685 Pattern Recognition and Data Mining 3(3-0)
Pattern modeling, classification, recognition, and their applications in data mining. Data mining process and techniques, including data transformation, supervised induction, association discovery, and conceptual clustering. Prerequisites: CPS 410, MTH 223, STA 282, STA 382 or STA 584.

CPS 695 Professional Field Experience 1-6(Spec)
Professional field experience via internship or apprenticeship. Must be integral to the student’s program of study. Does not count towards a degree in Computer Science. CR/NC only. Prerequisites: permission of graduate advisor or department chairperson.

CPS 696 Special Topics in Computer Science 1-6(Spec)
May be taken for credit more than once, but total credit earned in CPS 696 may not exceed 6 semester hours. Prerequisite: permission of instructor.

CPS 697 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 798 Thesis 1-6(Spec)
CR/NC only. Prerequisites: written permission of advisor and department chairperson.

Department of Counseling and Special Education (CED, SPE)
College of Education and Human Services

Suzanne Shellady, Chairperson
321 EHS Building, (989) 774-3205

Dawn Decker, Ph.D., Cognitive Impairment
Maud Dogoe, Ed.D., Autism
Wendy A. Folger, Ed.D., Professional Counseling
Laura M. Frey, Ph.D., Emotional Impairment
Sherel Lee Haight, Ph.D., Learning Disabilities, Cognitive Impairment
Holly Hoffman, M.A., Emotional Impairment, Early Childhood Special Education
Sherene McHenry, Ph.D., Professional Counseling
Twinet Parmer, Ph.D., Professional Counseling
Suzanne Shellady, Ph.D., Emotional Impairment, Autism, Learning Disabilities
Martha Singleton, M.S.Ed., Professional Counseling
Colin Ward, Ph.D., School Counseling, Professional Counseling

Master of Arts (M.A.) in Counseling

Minimum Totals for Graduation: 48 hours
The Counselor Education faculty at Central Michigan University offer courses and programs designed to prepare students to work as counseling personnel in public and private schools, institutions of higher education, community-based social service agencies, and private practice. Many classes are offered nights and weekends to better accommodate the nontraditional student. Students who successfully complete a program for Counselor Education earn a Master of Arts degree in Counseling.

Faculty members include licensed professional counselors, nationally certified counselors, and licensed psychologists. Teaching excellence is a top priority of the faculty.

Admission Requirements, Retention and Termination Standards

Admission
1. Applicant screenings are conducted twice a year. All application materials (see below) must be received by submission deadlines: February 1 or September 1.
2. In addition to submitting the application, all transcripts, and written statement of purpose and general plans for graduate study, the applicant must arrange for a recent (not more than five years old) Miller Analogies Test (MAT) score to be sent directly to the Department of Counseling and Special Education and be received by the application deadline. The MAT score, undergraduate GPA, and the applicant's statement of purpose and general plans for graduate study are all considered in determining admission. The MAT is available through testing centers such as the Computer-based and Placement Testing Center located on the CMU campus.
3. Applicants chosen in the screening process will be initially admitted to the program on a Conditional basis. To be eligible for Regular Admission status, the student must first complete a minimum of 10 semester hours of coursework in the Counselor Education program with a minimum 3.0 grade point average.
4. In addition to the above requirements, applicants seeking school counseling endorsement must have or be eligible for Michigan Teacher Certification.
Program Requirements

The candidate should decide on one of the following program options and complete their Authorization of Degree Program form with their assigned advisor after achieving Regular Admission status. Elective courses will be selected with the approval of the advisor. The faculty recommends taking the comprehensive examination during the semester the student intends to graduate.

Progress through the program is based on satisfactory grades (a grade point average of B or better overall) and satisfactory evaluations of pre-professional functioning (e.g., demonstration of appropriate personal and professional skills, ethical standards, and behaviors). Serious and persistent difficulties in pre-professional functioning may result in dismissal from the program.

Each student participates in a supervised counseling experience (practicum) in the Human Development Clinic located in Rowe Hall. The Human Development Clinic provides counseling services for community residents, area school children, and Central Michigan University students. As a required part of their counseling training, advanced students ordinarily perform these services under the supervision of the Counselor Education faculty. 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 extensive counseling and consultative services during the summer months. The Human Development Clinic is administered by the Department of Counseling and Special Education.

Degree Requirements

Select one of the following options:

Counseling: Professional Counseling

This option prepares students who wish to qualify for licensure as school counselors or professional counselors (LPC) in Michigan. Students will gain knowledge and experience in research, group techniques, counseling theories, ethics, counseling techniques, counseling philosophy, testing procedures, career development, and consulting. Practicum and internship experiences will complete the minimum requirements. Elective hours will allow the individual student to gain additional knowledge and experience in areas of particular interest. Students select CED 502, CED 503, or CED 504 depending on their particular area of interest. (Note: School Counseling licensure will usually require some coursework beyond the 48 credit hour degree.)

Core Courses I (3 hours)

Select one of the following:
CED 610 - Career Development and Counseling 3(3-0)
CED 611 - Developmental Career Counseling 3(2-1)

Core Courses II (30 hours)
CED 630 - Counseling Ethics and Professional Issues 3(3-0)
CED 840 - Standardized Tests 3(3-0)
CED 650 - Theories and Techniques of Group Counseling 3(3-0)
CED 660 - Counseling Techniques 3(3-0)
CED 677 - Theories of Counseling 3(3-0)
CED 690 - Supervised Experience in Counseling 3(1-3)
CED 691 - Internship in Counseling 1-6(Spec)
CED 685/SPE 695 - Research for Counseling and Special Education 3(3-0)
CED 785 - Professional Counseling and Consulting 3(3-0)

Additional Requirements I (3 hours)

Select one of the following:
CED 502 - Student Development in Higher Education 3(3-1)
CED 503 - Introduction to Community Agency Counseling 3(3-0)
CED 504 - Introduction to School Counseling 3(3-0)

Note: Those students seeking Elementary or K-12 Endorsement must also take CED 551.

Additional Requirements II (1 hour)
CED 515 - Basic Group Participation 1(Spec)

Additional Requirement III
Comprehensive Examination

Other Requirement (3-6 hours)

Select one of the following plans:

Plan A (6 hours)
CED 698 Thesis 1-6(Spec)

Plan B (3 hours)
Plan B paper:
CED 696 - Independent Research 3(Spec)

Electives (5-8 hours)
Select from the following to bring total program credit hours to at least 48, or from approved SPE courses.
CED 517 - Group Experience I 2(Spec)
CED 518 - Group Experience II 2(Spec)
CED 583 - Counseling Aspects of Sexuality 3(3-0)
CED 620 - Introduction to Multicultural Issues in Counseling 3(3-0)
CED 668 - Theory and Process of Family Therapy 3(3-0)
CED 670 - Independent Study 1-12(Spec)
CED 680 - Seminar: Professional Topics 1-12(Spec)

Total: 48 semester hours

Counseling: School Counseling

The school counseling option is designed for students with Teacher Certification who wish to earn a School Counselor Endorsement. Potential work settings would include: elementary schools, middle schools, secondary schools, or K-12 schools. In addition, School Counseling graduates will meet the academic requirements for licensure as a professional counselor (LPC) in Michigan.

Core Courses I (3 hours)

Select one of the following:
CED 610 - Career Development and Counseling 3(3-0)
CED 611 - Developmental Career Counseling 3(2-1)

Core Courses II (30 hours)
CED 630 - Counseling Ethics and Professional Issues 3(3-0)
CED 640 - Standardized Tests 3(3-0)
CED 650 - Theories and Techniques of Group Counseling 3(3-0)
CED 660 - Counseling Techniques 3(3-0)
CED 677 - Theories of Counseling 3(3-0)
CED 690 - Supervised Experience in Counseling 3(1-3)
CED 691 - Internship in Counseling 1-6(Spec)
CED 685/SPE 695 - Research for Counseling and Special Education 3(3-0)
CED 765 - Professional Counseling and Consulting 3(3-0)

Additional Requirements I (7 hours)
CED 504 - Introduction to School Counseling 3(3-0)
CED 515 - Basic Group Participation 1(Spec)
CED 551 - Counseling with Children 3(3-0)

(continued)
Conditional Admission to the Master of Arts degree program
Prior to admission to a master’s degree program, the candidate requires the following:

Termination Standards
Admission Requirements, Retention & Termination Standards

The Master Teacher
The 18 credit hour certificate is designed for graduate students who seek advanced training in the field of autism. This program is designed to provide multidisciplinary training experience in developing competencies to work effectively with individuals with autism in a variety of educational and community settings. Students can choose to pursue this certificate alone, or may potentially incorporate it into various master's programs. Credits successfully earned within this graduate certificate program can be transferred toward the Master Teacher program.

Additional Requirements II
Comprehensive Examination

Other Requirement (3-6 hours)
Select one of the following plans:

Plan A (6 hours)
CED 696 - Thesis 1-6(Spec)

Plan B (3 hours)
Plan B paper:
CED 696 - Independent Research 3(Spec)

Electives (2-5 hours)
Select from the following or from approved SPE courses to bring total program credit hours to at least 48:
CED 517 - Group Experience I 2(Spec)
CED 518 - Group Experience II 2(Spec)
CED 583 - Counseling Aspects of Sexuality 3(3-0)
CED 620 - Introduction to Multicultural Issues in Counseling 3(3-0)
CED 660 - Theory and Process of Family Therapy 3(3-0)
CED 670 - Independent Study 1-12(Spec)
CED 680 - Seminar: Professional Topics 1-12(Spec)
CED 685 - Counseling Aspects of Grief and Loss 3(3-0)

Total: 48 semester hours

Master of Arts (M.A.) in Special Education

Minimum Totals for Graduation: 33 hours
The Master of Arts in Special Education is designed for students who want advanced study in special education. These programs are designed to provide training experiences leading to the development of those competencies specifically related to working with persons with disabilities in a variety of public school and community settings as a teacher or teacher consultant.

Special Education requires that a minimum of 15 semester hours toward any graduate program be taken on campus. "On campus" is not restricted to Mt. Pleasant. Therefore, students should contact the department chairperson to determine whether a course is considered "on campus."

The Master Teacher
The Master of Arts Degree in Special Education: The Master Teacher is conceptualized as a degree specifically to build upon the strengths of certified educators. It is intended to expand their skills and knowledge base in order to prepare them to assume the role of what the Carnegie Institute refers to as "The Master Teacher."

Admission Requirements, Retention & Termination Standards
Beyond the standards of the College of Graduate Studies admission, Special Education requires the following:

1. Prior to admission to a master's degree program, the candidate must have a bachelor's degree and a valid Michigan Elementary or Secondary Provisional, Permanent, or Life certificate or special education endorsement. If applicants do not meet this requirement, they should contact the EHS Center for Student Services (421 EHS Building, CMU, Mt. Pleasant, MI 48859, 989-774-3309).

2. Conditional Admission to the Master of Arts degree program in Special Education requires an undergraduate cumulative grade point average of 2.75. (Applicants below the required grade point average may appeal through the chairperson for exception.) Additionally, applicants are required to submit a current statement of purpose for pursuing the degree, and two letters of recommendation regarding the applicant's performance with Special Education populations.

3. Any applicant who is not admitted to a degree program in Special Education may reapply to that option by following the same procedures for the initial application.

4. After each applicant with Conditional Admission has completed 10 semester hours of graduate study on the program at Central Michigan University with a grade point average of 3.0 or higher, he or she may petition for reclassification for Regular Admission. The faculty will then determine whether Regular Admission will be granted. An Authorization of Degree Program form must be filed at this time by students granted Regular Admission.

Prerequisites:
Special Education endorsement OR the following courses within the last ten years.
SPE 126 - Introduction to Special Education 3(3-0)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)

Retention and Termination Standards
These graduate programs lead to a Master of Arts degree in Special Education. The degree is based upon satisfactory completion of a minimum of 33 semester hours of graduate work and satisfactory demonstration of the competencies identified within the stated objectives and activities of the program.

Degree Requirements
Core Courses (18 hours)
SPE 600 - Current Issues in Special Education 3(3-0)
SPE 679 - Behavioral and Curricular Interventions for Individuals with Mild Disabilities 3(3-0)
SPE 695/CED 695 - Research for Counseling and Special Education 3(3-0)
SPE 750 - Consultant Skills for Special Educators and Counselors 3(3-0)
SPE 785 - Seminar in Special Education 3(3-0)
SPE 790 - Seminar: Investigations and Solutions in Special Education 3(3-0)

Additional Requirements (15 hours)
Required classes to be selected in consultation with an advisor.

Total: 33 semester hours

Graduate Certificate in Autism

Minimum Totals for Graduation: 18 hours
The 18 credit hour certificate is designed for graduate students who seek advanced training in the field of autism. This program is designed to provide multidisciplinary training experience in developing competencies to work effectively with individuals with autism in a variety of educational and community settings. Students can choose to pursue this certificate alone, or may potentially incorporate it into various master's programs. Credits successfully earned within this graduate certificate program can be transferred toward the Master Teacher program.

Admission Requirements, Retention and Termination Standards
Admission is through the College of Graduate Studies. Students pursuing this certificate should have a background in education, psychology, communication disorders or another related discipline and have met the graduate admission requirements for non-degree seeking students. Students pursuing the autism program in conjunction with the Master Teacher program or other graduate program must adhere to the corresponding admission requirements for that graduate program.
Required Courses (15 hours)

CED 550 - Communication Assessment and Intervention in Children with Autism 3(3-0)
PSY 586 - Applied Behavioral Analysis in Education 3(3-0)
PSY 682/EDU 682 - Psychology of Child Development 3(3-0)
SPE 530/PSY 575 - Autism Spectrum Disorder: Characteristics and Etiology 3(3-0)
SPE 531 - Autism Spectrum Disorder: Educational Implications 3(3-0)

Focus

Select one of the following:

Communication Disorders Focus (3 hours)
Those pursuing a graduate certificate with a Communication Disorders focus must also take:
CED 749 - Clinical Practicum in Speech-Language Pathology or Audiology 1-5(Spec)

Psychology Focus (3 hours)
Those pursuing a graduate certificate with a psychology focus must also take:
PSY 792 - Supplemental Supervision 1-3(Spec)

Special Education Focus (3 hours)
Those pursuing a graduate certificate with a Special Education focus must also take:
SPE 536 - Field Experience: Autism 3(Spec)

Total: 18 semester hours

Course Descriptions: CED

CED 502 Student Development in Higher Education 3(3-1)
The college student personnel movement, its social, psychological, and cultural foundations. Student development functions; career program models; legal, ethical, and professional considerations; roles of the professional.

CED 503 Introduction to Community Agency Counseling 3(3-0)
An overview of issues and trends in community agency counseling. Topics include: history, professional orientation, philosophy, finance, administration, community resources and special concerns.

CED 504 Introduction to School Counseling 3(3-0)
History and philosophy of school counseling programs. Role and function of school counselors.

CED 505 Orientation to the Counseling Profession 1(1-0)
Orient students to the profession by examining history, identity, and process of becoming a professional counselor in a diverse society. Prerequisites: Graduate Status.

CED 515 Basic Group Participation 1(Spec)
Facilitated group counseling where students experience being in the role of client/group participant. CR/NC only.

CED 520 Personal Growth and Development 2(Spec)
Personal growth group without the usual restrictions on verbal expression of thought and feeling, utilizing Basic Encounter technique to help participants increase awareness and acceptance of self and others.

CED 526 Families with Exceptional Children 3(3-0)
An introduction to theory and skills for developing collaborative relationships with families of children with special needs. Both cognitive and experiential approaches will be used. Prerequisites: SPE 530, and senior or graduate status.

CED 540 Counseling for Addictions 3(3-0)
Presentation and application of basic theories, techniques and resources for dealing with a broad range of addictive behavior, both substance related and behaviorally focused. Prerequisites: Senior or graduate status.

CED 545 School Counseling Seminar 3(3-0)
Discussion and individual investigation into topics and critical incidents germane to schools. Recommendations and solutions by professionals in the field are reviewed. Prerequisites: CED 504.

CED 551 Counseling with Children 3(3-0)
Survey of specialized skills for counseling with children. Emphasis upon the modification of counseling interventions to meet the needs of elementary aged children. Prerequisite: Junior or graduate status.

CED 580 Seminar: Professional Topics 1-12(Spec)
Special topics that are germane to the fields of personal development and counseling.

CED 583 Counseling Aspects of Sexuality 3(3-0)
An introduction to the dynamics of human sexual dysfunctions and the counseling appropriate for therapeutic intervention.

CED 605 The Marriage and Family Therapist 3(3-0)
Study of the professional and ethical responsibilities; the role of the professional organization; licensure and certification; legal responsibilities and liabilities; private practice and intra-professional cooperation; and the development of a professional attitude and identity.

CED 608 Understanding and Working with Couples and Families 3(3-0)
Introduction to theories and skills for working with couples and families and understanding how relationships influence individual behavior. Prerequisites: Graduate status.

CED 610 Career Development and Counseling 3(3-0)
Critical survey of career development theories. Practical application of career counseling programs. Use of tools and information in career counseling. This course is approved for offering in a distance learning format.

CED 611 Developmental Career Counseling 3(2-1)
Critical survey of career development theories. Application of concepts and strategies of career exploration. Students participate in a supervised experience in teaching career exploration techniques. Prerequisite: graduate student status.

CED 612 Work and Career in a Global Society 3(3-0)
Orient students to work and career in a global society by examining past, present and future issues in the workplace. Prerequisites: Graduate status.

CED 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

CED 620 Introduction to Multicultural Issues in Counseling 3(3-0)
An examination of research and practice issues relating to counseling culturally specific groups. Special emphasis on the client/counselor relationship.

CED 621 Orientation to a Culturally Diverse Society 3(3-0)
Orient students to the process of developing competence to live and relate in a culturally diverse society. Prerequisites: Graduate status.
CED 630 Counseling Ethics and Professional Issues 3(3-0)
Supervised discussion of legal and ethical issues that most affect the practice of counseling and related helping professions. Prerequisites: admission to counseling program.

CED 640 Standardized Tests 3(3-0)
Selection, evaluation, functions, and interpretation of tests in intelligence, achievement, aptitude, personality, and interests. Emphasis on tests appropriate to the students' future work settings. Prerequisite: Admission to counseling program.

CED 650 Theories and Techniques of Group Counseling 3(3-0)
The application of group theories and techniques, interpersonal communication skills, and the assessment of group counseling interventions. Prerequisite: admission to counseling program.

CED 655 Human Relations Skills 3(3-1)
An introduction to skills utilized in developing helping relationships. Special emphasis upon the person-to-person, day-to-day relationships. The class will be conducted through both a cognitive and experiential approach.

CED 660 Counseling Techniques 3(3-0)
Systematic study of the counseling process: stages, intervention strategies, and related issues. Both cognitive and experiential approaches will be used. Prerequisites: CED 677; regular admission to program.

CED 668 Theory and Process of Family Therapy 3(3-0)
Introduction to the specific theories of marriage and family counseling and examination of the processes involved with each.

CED 670 Independent Study 1-12(Spec)
Study and/or investigation of a special problem with the guidance of a staff member. Prerequisites: admission to counseling program.

CED 677 Theories of Counseling 3(3-0)
An examination of psychological foundations with counseling theories and approaches. Designed to aid students' development of personal counseling theory as a guide to practice. Prerequisites: admission to counseling program.

CED 680 Seminar: Professional Topics 1-12(Spec)
Special topics that are germane to the fields of personal development and/or counseling.

CED 684 Grief, Loss and Trauma 3(3-0)
An examination of grief, loss and trauma, the impact they have on individuals and systems, and how helping professionals can mitigate their effects. Prerequisites: Graduate status.

CED 685 Counseling Aspects of Grief and Loss 3(3-0)
An introduction to the dynamics of grief and loss and the counseling procedures appropriate for therapeutic intervention.

CED 690 Supervised Experience in Counseling 3(1-3)
Counseling school children, parents, and college students, with supervision. Observation of counseling sessions. May include a laboratory experience work setting. NOTE: application to register for this course must be filed during the semester prior to registration for approval. Prerequisite: regular admission and a B or better in CED 660.

CED 691 Internship in Counseling 1-6(Spec)
On-the-scene work in selected settings under the supervision of experienced practitioners. Practical experience, observation, and opportunity for relating the theoretical and the actual. NOTE: application to register for this course must be filed during the semester prior to registration for approval. CR/NC only. Prerequisites: grade of B or better in CED 690.

CED 695 Research for Counseling and Special Education 3(3-0)
Presentation and application of designs and procedures pertinent to conducting research in human services. Includes writing Plan A/B proposal and article, implementing mini-research project. Identical to SPE 695. Credit may not be earned in more than one of these courses. Prerequisites: Regular admission and 15 hours completed toward the M.A. in Counseling and Special Education. This course is approved for offering in a distance learning format.

CED 696 Independent Research 3(Spec)
Completion of Plan B paper or project under the supervision of a faculty advisor. Prerequisites: Successful completion of CED 695 or graduate research methods course.

CED 698 Thesis 1-6(Spec)
CR/NC only. For Master's degree candidates.

CED 750 Facilitating of Groups 3(3-1)
Survey of differing styles of group facilitation. Elements in the helping relationship which improve the quality of interpersonal relationships. "Self-in-therapeutic-interaction" incorporated into a supervised experience. Prerequisites: regular admission to counseling program and permission of instructor.

CED 751 Facilitation of Play Therapy Sessions 3(3-1)
Systematic inquiry into the use of play therapy and its relevance to the growth and development of children. Theoretical positions compared and appraised. Supervised experience. Prerequisites: regular admission to counseling program and permission of instructor.

CED 765 Professional Counseling and Consulting 3(3-0)
Focuses on specific knowledge and skills used by professional counselors in a variety of settings. Includes consultation, supervision, diagnostics, and other topics. Prerequisites: admission to counseling program and CED 677.

CED 780 Seminar: Professional Topics 1-12(Spec)
Special topics that are germane to the fields of personal development and counseling. Prerequisite: Ed.S. candidate.

CED 790 Advanced Supervised Experience in Counseling 3(1-3)
A continuation of 690. Application to register for this course must be filed during the semester prior to registration for approval. Prerequisite: admission to candidacy and CED 760.

CED 791 Advanced Internship in Counseling 3(1-4)
Internship with selected professionals. Opportunity to confirm professional effectiveness in helping professions. NOTE: Application to register must be filed and approved during the semester prior to registration. CR/NC only. Prerequisites: Grade of B or better in CED 690; permission of instructor.

Course Descriptions: SPE

SPE 500 Parent and Professional Relationships in Special Education 3(3-0)
Establishing and maintaining collaborative relationships with parents and professionals. Study of effects of an exceptional child on the family and methods for meeting their needs. Prerequisite: admission to Teacher Education or senior status. Graduate students may be admitted with permission of instructor.

SPE 504 Teaching Students in Inclusive Settings 3(3-0)
Theory and practice of the instruction of students who have disabilities in general education settings. Prerequisite: senior or graduate status.
SPE 510 Advanced Technology in Education 3(2-3)
Students will study and practice the integration of technology in classroom instruction and management, with emphasis upon software evaluation and lesson design. Identical to EDU 590. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisite: EDU 290 or graduate status.

SPE 519 Teaching the Student with Mild Cognitive Impairment 3(3-0)
Causes of characteristics of mild cognitive impairment as well as curriculum development and instructional methods included. Grade of C+ or better required. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 521 Teaching the Student with Moderate to Severe Cognitive Impairment 3(3-0)
Causes and characteristics of moderate to severe cognitive impairment. Curriculum development and instructional methods included. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 522 Field Experience-Cognitive Impairment 3-6(Spec)
University-supervised practice and application of knowledge and strategies for teaching students with cognitive impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324, SPE 519 and SPE 521 with grades of C+ or better; admission to Teacher Education; PSY 310.

SPE 529 The Gifted Child 3(3-0)
Characteristics of children with superior abilities. Reviews special curricula and teaching procedures for improving the learning and adjustment of these children.

SPE 530 Autism Spectrum Disorder: Characteristics and Etiology 3(3-0)
This course will review the behavioral and educational characteristics of students with autism spectrum disorders. Known causes of this disorder will also be examined. Identical to PSY 575. Credit may not be earned in more than one of these courses. Prerequisite: senior or graduate status.

SPE 531 Autism Spectrum Disorder: Educational Implications 3(3-0)
Presentation of special techniques and materials used in best practice instruction of students with autism spectrum disorders. Prerequisites: SPE 530 and senior or graduate status.

SPE 536 Field Experience: Autism 3(Spec)
Practice and application of knowledge and strategies for teaching students with autism under faculty supervision. Application to register for this course must be filed during the semester prior to registration for approval. Prerequisites: SPE 530, SPE 531, PSY 586, PSY 682, CDO 550, and graduate status.

SPE 545 Special Education Workshop 1-6(Spec)
Study of trends, alternative approaches, and innovative curricula in programming for the exceptional student. Prerequisite: permission of instructor.

SPE 550 Teaching Culturally Diverse Students 3(3-0)
Survey of sociocultural influences on the performance of students from culturally different backgrounds, and educational provisions made for them in public schools. Included are Hispanic, Black and Asian American; Native American; rural and urban disadvantaged and recent immigrants.

SPE 570 Career Development and Transition 3(3-0)
Study of lifespan issues for persons with disabilities, stressing curriculum content and instructional strategies that promote interdisciplinary career development and transition education at all age levels. Prerequisites: SPE 126, with a grade of C or better; Junior status. Graduate students may be admitted with permission of instructor.

SPE 577 Introduction to Specific Learning Disability 3(3-0)
Systematic introduction to the identification, diagnosis and remediation of specific learning disabilities. Prerequisite: approved major in psychology or special education, or graduate status.

SPE 578 Students with Emotional Impairment 3(3-0)
Diagnostic procedures, therapy, and research concerning children and youth with emotional impairment. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 with grades of C+ or better; admission to Teacher Education; PSY 310. Graduate students may be admitted with permission of instructor.

SPE 579 Teaching Students with Emotional Impairment 3(3-0)
Special techniques and materials used in instruction of students who have emotional and behavioral disorders. Grade of C+ or better required to count toward degree. Prerequisites: SPE 126 with a grade of C or better; SPE 322, SPE 323, SPE 324 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.

SPE 600 Current Issues in Special Education 3(3-0)
Concentrated study of current special education problems with particular attention to program implementation and development resulting from recent legislation and research. Prerequisite: admission to a master's program in Special Education.

SPE 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

SPE 640 Administration of Special Education 3(3-0)
Organization and administration of educational programs for exceptional children. Prerequisite: SPE 126. Identical to EDL 675. Credit may not be earned in more than one of these courses.

SPE 645 Special Education Workshop 1-6(Spec)
Study of trends, alternative approaches, and innovative curricula in programming for the exceptional student. Specifically for in-service training. Prerequisite: permission of instructor.

SPE 655 Independent Study 1-3(Spec)
Individual research or project dealing with a problem in special education. Prerequisite: Approval of department chairperson.

SPE 666 Independent Study 1-3(Spec)
Individual research or project dealing with a problem in special education. Prerequisite: Approval of department chairperson.

SPE 675 Teaching the Student with Learning Disabilities 3(3-0)
Methods and materials used in teaching students with specific learning disabilities. Prerequisite: SPE 577.
SPE 678 Education of Students with Severe Emotional Impairment 3(3-0)
Study of children with severe emotional impairment with particular attention to the underlying theories and intervention programs implemented by school personnel and parents. Prerequisites: major in Teachers of Students with Emotional Impairment.

SPE 679 Behavioral and Curricular Interventions for Individuals with Mild Disabilities 3(3-0)
The relationship between behaviors and curriculum in the education of individuals with mild disabilities, focusing on the techniques and practices of various interventions. Prerequisites: SPE 600 and admission to a master’s degree program.

SPE 685 Innovative Cognitive Techniques in Special Education 3(3-0)
A study of instructional techniques which have been shown to be effective in enhancing the cognitive skills of special education students. Prerequisites: SPE 577, PSY 667, SPE 675 and permission of instructor.

SPE 689 Graduate Practicum in Special Education 3-6(Spec)
Provide students the opportunity to develop and demonstrate competencies required for working with students with cognitive impairment or emotional impairment or specific learning disabilities. Prerequisites: Cognitive Impairment focus: SPE 519, SPE 521, SPE 522. Emotional Impairment focus: SPE 578, SPE 579, SPE 581. Specific Learning Disabilities focus: PSY 667, SPE 675, SPE 685. Permission of instructor and application to register for this course must be filed during the semester prior to registration for approval.

SPE 695 Research for Counseling and Special Education 3(3-0)
Presentation and application of designs and procedures pertinent to conducting research in human services. Includes writing Plan A/B proposal and article, implementing mini-research project. Identical to CED 695. Credit may not be earned in more than one of these courses. Prerequisites: Regular admission and 15 hours completed toward the M.A. in Counseling and Special Education. This course is approved for offering in a distance learning format.

SPE 720 Seminar: Teaching Students with Severe Cognitive Impairment 3(3-0)
Study and research of selected topics that reflect total education programming for individuals with severe cognitive impairment. Prerequisite: major in Teachers of Students with Cognitive Impairment.

SPE 741 Seminar: Administration of Special Education 2(2-0)
Provides interaction among special educators to discuss current issues and problems in implementing programs in accordance with special education code and guidelines. Prerequisites: SPE 640 and background in research methods.

SPE 750 Consultant Skills for Special Educators and Counselors 3(3-0)
The skills, competencies, responsibilities, priorities, and evaluative processes appropriate in a special education teacher/counselor/consultant role are analyzed. Prerequisite: admission to a master’s program.

SPE 775 Seminar: Learning Disabilities 3(3-0)
Discussion and research of major issues and current topics in the field of learning disabilities. Prerequisites: SPE 577, SPE 675 or SPE 676 and permission of instructor.

SPE 785 Seminar in Special Education 3(3-0)
Selected theories and practices in educational training of the mildly impaired. Reviews current research and related findings to the implementation of successful programs. Prerequisite: SPE 600 and admission to a master’s program.

SPE 790 Seminar: Investigations and Solutions in Special Education 3(3-0)

SPE 798 Thesis 1-6(Spec)
Prerequisite: Approval of Committee chairperson. CR/NC only.
Department of Economics (ECO)

College of Business Administration

Paul Natke, Chairperson
321 Sloan Hall, (989) 774-3870

Jeffrey Barbour, Ph.D., Florida State University; Economic History, Economic Theory.

Bharati Basu, Ph.D., University of Rochester; International Trade, Economic Development.

Lawrence Brunner, Ph.D., Johns Hopkins University; Public Finance, Urban Economics.

A. Aydin Cecen, Ph.D., Indiana University; International Trade, Mathematical Economics.

Debasish Chakraborty, Ph.D., University of Pittsburgh; International Trade, Monetary Theory, Economic Development.

Richard Clemmer, Ph.D., University of Chicago; Urban Economics, Microeconomics

Gregory A. Falls, Ph.D., Purdue University; Econometrics, Macroeconomics

James Richard Hill, Ph.D., University of Kentucky; Labor, International Trade

James R. Irwin, Ph.D., University of Rochester; Economic History, International Trade, Monetary Theory, Econometrics

Catherine L. McDevitt, Ph.D., University of Rochester; Macroeconomics, Monetary Theory, Public Finance

Paul Natke, Ph.D., University of Notre Dame; Monetary Theory, Managerial Economics

Michael Shields, Ph.D., University of Utah; Economic Development, Economic Theory

Jason E. Taylor, Ph.D., University of Georgia; Economic History, Industrial Organization

Linlan Xiao, Ph.D., University of Western Ontario; econometrics, mathematical models

The Program

The Department of Economics at Central Michigan University offers a program leading to the degree of master of arts in economics. The program is designed for two types of students: those who wish to gain marketable skills in applied economics and those who wish to strengthen their preparation in order to continue work toward a doctorate in economics.

Graduate assistantships, which involve the student in either teaching or research, are available on a competitive basis from the Economics Department. Currently, most of the economics graduate students are from countries other than the United States.

The program is designed to meet the needs of the individual student, and students may choose to write a thesis or select a non-thesis option. The M.A. program is designed so that it can be completed in one calendar year but normally requires three semesters.

Graduate courses in economics may be selected as elective or cognate courses on various graduate curricula including the following: business administration, geography, history, political science.

Requirements of the interdisciplinary curriculum for the Master of Science in Administration are stated in the section on Interdisciplinary Degrees.

Master of Arts (M.A.) in Economics

Minimum Totals for Graduation: 30 hours

Degree requirements will be satisfied by completing the common core and the Plan A or Plan B alternative. Candidates may not offer more than six hours of cognate courses for this 30-hour program. All cognate courses must be selected in consultation with the candidate's advisor.

Admission Requirements, Retention and Termination Standards

There are no specific undergraduate requirements for admission to the Master of Arts degree program in economics. Students who, in the opinion of the Graduate Coordinator, are deficient in background will be advised to take additional courses. Students who do not meet the graduate school requirements may apply for nondegree admission. A maximum of 15 credits earned during non-degree status may be applied toward a graduate degree in Economics.

Core Courses (12 hours)
ECO 535 - Fundamentals of Mathematical Economics 3(3-0)
ECO 585 - Econometrics 3(3-0)
ECO 616 - Advanced Microeconomic Theory 3(3-0)
ECO 620 - Advanced Macroeconomic Theory 3(3-0)

Additional Requirement (18 hours)
Choose one of the following plans:

Plan A: Thesis
12 hours of courses approved by an advisor, inclusive of cognate courses.
ECO 798 - Thesis 1-6(Spec)

Plan B: Non-thesis
1. Courses approved by advisor, inclusive of cognate courses - 18 hours.
2. Research paper under the direction of a faculty member.

Total: 30 credit hours

Accelerated Master of Arts in Economics

Students admitted to the Accelerated Master's Degree Program may earn up to twelve hours of graduate credit toward the MA in Economics for courses taken during their senior year. These courses will count both toward their undergraduate degree and toward their MA degree in Economics. The student will need, first, to be admitted to the program and, second, to have completed the agreed-to plan of study.

Admission Requirements

Within 30 credit hours of graduating with a BS or BS in BA with a GPA of 3.25. In addition, the student should have completed the University competency requirements and ECO 365, ECO 370, MTH 217, and ECO 285 or STA 282.

Plan of Study

Courses to be counted toward both the undergraduate degree and the MA in Economics when taken during the senior year by a student admitted to the Accelerated Master's Degree Program prior to the senior year and completing the courses during the senior year.

Fall Semester: ECO 585 (3 hours); ECO elective (3 hours)

Spring Semester: ECO 685 (3 hours); ECO elective (3 hours)

The electives must be at the 500 level and above and be approved by the graduate coordinator of Economics.
Course Descriptions: ECO

ECO 503 Seminar in Urban Economics 3(3-0)
Economic aspects of urban regions; their growth; household location; pollution; poverty. Solutions-oriented discussion of urban problems. Complements ECO 504. Recommended: ECO 375.

ECO 508 Monetary Theory 3(3-0)
Further development of theories of money supply, money demand, the options of monetary policy, and the effects of monetary policy on the economy. Prerequisite: ECO 306 or ECO 370.

ECO 515 Collective Bargaining and Labor Law 3(3-0)
Development of various phases of labor law, especially under statutes such as the Wagner Act, Taft-Hartley Act, and Landrum-Griffin Act. Prerequisites: ECO 202 or ECO 203. Recommended: ECO 201 or ECO 204.

ECO 532 Economic Forecasting 3(3-0)
Nature and causes of economic fluctuations. Methods of predicting price levels and economic activity. Prerequisites: ECO 201 or ECO 204; ECO 202 or ECO 203.

ECO 535 Fundamentals of Mathematical Economics 3(3-0)
Application of mathematical techniques in economics. Emphasizes marginal analysis, market models, comparative static equilibrium, and maximization. Prerequisites: ECO 365; MTH 132 or MTH 217 or graduate standing in Economics.

ECO 572 International Monetary Economics 3(3-0)
International monetary and financial markets are studied. Topics include exchange rate policy, international Capital Flow and purchasing power parity theory. Prerequisites: ECO 372.

ECO 585 Econometrics 3(3-0)
Thorough treatment of statistical estimation methods and their properties for simultaneous equation systems. Also includes discussions of types of systems, solution methods and identification. Prerequisite: STA 580.

ECO 590 Seminar Readings 1-3(Spec)
Elective honors course for majors or minors in economics. Recommended: 12 hours of economics with B average.

ECO 591 Seminar Research Studies 1-3(Spec)
Independent study on special problems for majors and minors in economics. Prerequisite: permission of instructor. Recommended: 9 hours of 300- to 500-level economics.

ECO 597 Special Studies in Economics 1-3(Spec)
Experimental courses to cover material of special interest to both undergraduates and graduates not covered by courses in the regular curriculum. Prerequisite: permission of instructor.

ECO 600 Introduction to Advanced Economic Analysis 3(3-0)
Provides the analytical tools necessary for graduate study in economics; firms, households, pricing, wages, distribution, market failure, income determination, and economic growth. Not open to Economics graduate students or undergraduate majors or minors.

ECO 601 Advanced Environmental Economics 3(3-0)
The use of price theory and benefit cost analysis to understand environmental problems and policies. Examination of property rights, regulations, taxes, and subsidies.

ECO 603 Economic Effects of Urbanization and Technology 3(3-0)
Analysis of the economic effects of the urbanization process, emphasizing solutions to the problems of urbanization and side effects of policy actions.

ECO 606 Seminar in Economic History 3(3-0)
Diverse economic experiences of advanced nations since Industrial Revolution. Applies theoretical and institutional approaches to economic history.

ECO 610 Seminar in Economic Thought 3(3-0)
Evolution of economic thought during the past 25 centuries.

ECO 614 Seminar in Labor Economics 3(3-0)
Operation of labor markets in utilizing and allocating manpower. Government measure to facilitate such utilization and allocation. Influence of discrimination.

ECO 616 Advanced Microeconomic Theory 3(3-0)
Theories of consumer behavior; cost; optimum decision-making, prices, welfare economics, general equilibrium, and income distribution.

ECO 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

ECO 620 Advanced Macroeconomic Theory 3(3-0)
Analysis of the aggregate economic framework, and application of Keynesian and post-Keynesian macroeconomic theories to the determination of income, employment, and prices.

ECO 622 Seminar in Economic Growth and Development 3(3-0)
Selected topics in growth and development. Topics may include growth and development theory, rationality, population, labor, public economics and trade.

ECO 625 Firm Behavior and Game Theory 3(3-0)
Advanced studies of the theory of the firm and modeling strategic behavior. Topics may include transactions costs, collusion, mergers, advertising, brand names, and asymmetric information. Prerequisites: Graduate standing in Economics.

ECO 630 Comparative Economic Systems 3(3-0)
A systematic analysis of different types of economic systems with respect to the way basic economic problems of resource allocation and income distribution are solved.

ECO 640 Special Topics in Economic Issues 3-6(Spec)
A course organized by individual instructors on the basis of their specialized or experimental interests. Topics will vary from semester to semester.

ECO 650 American Financial Institutions 3(3-0)
Interrelationships among commercial banks, savings and loan associations, finance companies, securities markets, and federal credit institutions; developments, problems, and trends in money markets.

ECO 655 Seminar in International Economics 3(3-0)
Recent developments in trade theories and problems in trade policy; foreign exchange market; national income and balance of payments; and international financial policies.

ECO 657 Advanced Investment Analysis 3(3-0)
Analysis of the principles, techniques, and other factors that determine the values of individual securities and investment portfolios.
ECO 660 Public Finance and Fiscal Policy 3(3-0)
Analyzes fiscal policy and theory of taxation affecting economic welfare and delivery of public goods and services. Includes economic stabilization and fiscal reform considerations. Prerequisites: Graduate admission in economics or permission of the Graduate Coordinator is required of students who enroll in courses at the 600 or 700 level.

ECO 670 Research Methods in Economics 3(3-0)
Thorough comparative analysis of economic methodology and research methods. Prerequisites: ECO 585.

ECO 685 Econometric Applications 3(3-0)
Economic applications and empirical implementation and interpretation of econometric techniques. Prerequisites: ECO 585.

ECO 690 Independent Research 1-3(Spec)
Prerequisite: Graduate standing in Economics.

ECO 798 Thesis 1-6(Spec)
CR/NC only.

Education
(See Teacher Education and Professional Development)
b. a current resume identifying training, experience, and professional accomplishments;

c. a minimum of two letters of reference (dated and submitted on organizational letterhead) from individuals who can appropriately address the applicant's potential as an administrator and attest to the applicant's potential for success in the program;

d. a one-page reflective statement addressing the applicant’s beliefs about educational leadership;

e. a one-page reflective statement of professional goals and actions the applicant intends to take to achieve the identified goals;

f. identification of at least two significant activities that indicate experiences, abilities, and potential for educational leadership. For each activity identified, the applicant should indicate the nature of the activity, type and number of persons involved, roles and responsibilities of the applicant, budget (if applicable), and a reflective statement addressing what learning occurred for the applicant.

3. Regular admission will be granted only after the admission portfolio has been reviewed and deemed acceptable by a committee of Educational Leadership faculty. Acceptability will be judged on the appropriateness of the contents of the admission portfolio relative to the degree program to which application is being made. The applicant's statements about beliefs, professional goals, and activities must show evidence of thoughtfulness, thoroughness, and congruence with the degree program to which the application is directed.

It is advantageous for the applicant to submit the admission portfolio as early as possible. Applicants must submit a complete admission's packet, and it must be approved before a student is granted regular admission.

Degree Requirements

Select one of the following programs:

Educational Leadership

The Educational Leadership program is most flexible in terms of allowing students to design their own programs in consultation with their advisor. The program is designed for those seeking leadership positions in schools, higher education and other organizations dealing with the transfer of knowledge and learning. Students preparing for a position in a K-12 work environment should be aware that this degree concentration is not an administrative certification program.

We offer an online cohort option for the MA in Educational Leadership. Check with the department office to determine scheduling and emphasis focus.

Admission Requirements, Retention and Termination Standards

See information at the beginning of this section.

Core Courses (6 hours)
EDL 600 - Research in Administration 3(3-0)
EDL 660 - Principles of Educational Administration 3(3-0)

Emphasis Area (15 hours)

Select one of the following emphases:

Charter School Leadership*
EDL 645 - Charter School Leadership 3(3-0)
EDL 651 - Program Review and Evaluation 3(3-0)
EDL 664 - Public School Law 3(3-0)
EDL 662 - School Business Administration & Facilities Management 3(3-0)
EDL 663 - Personnel Administration 3(3-0)

General Educational Administration

EDL 656 - Public School Law 3(3-0)
EDL 662 - School Business Administration & Facilities Management 3(3-0)
EDL 663 - Personnel Administration 3(3-0)
EDL 664 - Public School Finance 3(3-0)

plus 6 hours EDL electives determined in consultation with an advisor.

Note: You may select either EDL 662 or EDL 664, not both.

Higher Education Administration
EDL 626 - The Adult Learner 3(3-0)
EDL 636 - Higher Education Law 3(3-0)
EDL 680 - Teaching in Higher Education Settings 3(3-0)
EDL 764 - Financing of Higher Education 3(3-0)
EDL 776 - Administration of Higher Education 3(3-0)

Student Affairs Administration
EDL 636 - Higher Education Law 3(3-0)
EDL 677 - The American College Student 3(3-0)
EDL 757 - Student Development Theory 3(3-0)
EDL 776 - Administration of Higher Education 3(3-0)
EDL 777 - Student Affairs Administration 3(3-0)

Electives (6 hours)
Select in consultation with an advisor.

Capstone Project (6 hours)
All students earning a M.A. in Educational Leadership will take a written comprehensive exam during their last semester of enrollment in the M.A. program. Exams will be offered once in the spring and once in the fall.

Select one of the following options:

Plan A
Completion of a thesis, including oral examination of the thesis.
EDL 798 - Thesis 1-6(Spec)

Plan B
EDL 698 - Master's Colloquium 3(3-0)
EDL 699 - Administrative Internship 1-15(Spec)

Total: 33 semester hours

*Note: Charter Schools Emphasis is an online program through Off-Campus Programs.

School Principalship

The School Principalship program prepares students to lead traditional public schools and public school academies. The program is NCATE accredited according to standards developed under the auspices of the National Policy Board for Educational Administration and implemented by the Educational Leadership Constituent Council. Generally, students selecting this program have had classroom teaching experience and plan to move to administrative positions. However, others remain in the classroom with a new perspective on how schools operate and choose to lead in other ways.

Admission Requirements, Retention & Termination Standards

See information at the beginning of this section.

Additional Admission Requirements

Must have either a valid teaching certificate and three years of experience or three years of other qualifying experience.

Required Courses (27 hours)
EDL 600 - Research in Administration 3(3-0)
EDL 615 - Educational Technology for Administrators 3(3-0)
EDL 620 - Administration Within Diverse Populations 3(3-0)
EDL 656 - Public School Law 3(3-0)
EDL 660 - Principles of Educational Administration 3(3-0)

Note:
You may select either EDL 662 or EDL 664, not both.
EDL 661 - School and Community Relations 3(3-0)  
EDL 662 - School Business Administration & Facilities Management 3(3-0)  
EDL 663 - Personnel Administration 3(3-0)  
EDL 675/SPE 640 - Administration of Special Education 3(3-0)  
EDL 699 - Administrative Internship 1-15(Spec)  
EDL 773 - Instructional Supervision for Administrators 3(3-0)  

Notes:  
- Select one of EDL 620 OR EDL 661 OR EDL 675/SPE 640, not all.  
- 3 hours of EDL 699.

Emphasis Area I (3 hours)  
Select one of the following:  
EDL 670 - Administration of Elementary Schools 3(3-0)  
EDL 671 - Administration of Middle Schools 3(3-0)  
EDL 672 - Administration of Secondary Schools 3(3-0)

Emphasis Area II (3 hours)  
Select one of the following:  
EDL 690 - Administration of Elementary School Curriculum 3(3-0)  
EDL 691 - Administration of Middle School Curriculum 3(3-0)  
EDL 692 - Administration of Secondary School Curriculum 3(3-0)

Professional Portfolio  
Plan B requirements are met with a Professional Portfolio that consists of additional evidence of significant scholarship and ability relating to competence in administration and leadership. Portfolios are reviewed and assessed during an exit interview.

Total: 33 semester hours

Specialist in Education (Ed.S.)  
In General Educational Administration

Minimum Totals for Graduation: 60 hours  
The Ed.S. degree is based upon the satisfactory completion of a minimum of 60 semester hours of graduate work beyond the bachelor’s degree. During the course of this program, a student may apply for a master’s degree when requirements for that degree are satisfied. A student who has already earned a master’s degree before enrolling in a specialist program may, in consultation with the advisor, work out a program that includes previous graduate coursework that is pertinent to his or her program. Since a specialist degree implies an understanding of a field in greater depth than that provided by a similar master’s degree program, a student whose master’s degree is not in the same precise area as the chosen specialist program should expect to do more than 30 semester hours of work beyond the master’s degree.

Graduate students, under the specialist degree in general educational administration, may select courses that will develop skills in school superintendency, agency administration, higher education, or other leadership positions. The student should consult an advisor to develop such a program.

Admission Requirements, Retention and Termination Standards  
In addition to the requirements for admission (see below), applicants for the Educational Specialist degree must have three years of experience in an educational or other human service organization. (Applicants who cannot satisfy the experience requirement or for whom the department faculty believe additional documentation of promise is necessary may choose to participate in an administrative assessment center program or submit evidence of professional leadership. Other evidence might include one or more of the following: publications in professional journals, presentations at professional meetings, leadership positions in professional organizations, awards and honors, and other similar evidence).

Admission Requirements  
1. Applicants must meet the requirements for admission to the College of Graduate Studies.

2. Applicants must provide evidence of promise as an administrator by preparing and submitting an admission portfolio directly to the Department of Educational Leadership. The following items must be included in the contents of the portfolio:
   a. a department application form (http://www.eds.cmich.edu/edl);
   b. a current resume identifying training, experience, and professional accomplishments;
   c. a minimum of two letters of reference (dated and submitted on organizational letterhead) from individuals who can appropriately address the applicant’s potential as an administrator and attest to the applicant’s potential for success in the program;
   d. a one-page reflective statement addressing the applicant’s beliefs about educational leadership;
   e. a one-page reflective statement of professional goals and actions the applicant intends to take to achieve the identified goals;
   f. identification of a minimum of two significant activities that indicate experiences, abilities, and potential for educational administration. For each activity identified, the applicant should indicate the nature of the activity, type and number of persons involved, roles and responsibilities of the applicant, budget (if applicable), and a reflective statement addressing what learning occurred for the applicant.

3. Regular admission will be granted only after the admission portfolio has been reviewed and deemed acceptable by a committee of Educational Leadership faculty. Acceptability will be judged on the appropriateness of the contents of the admission portfolio relative to the degree program to which application is being made. The applicant’s statements about beliefs, professional goals, and activities must show evidence of thoughtfulness, thoroughness, and congruence with the degree program to which the application is directed. It is advantageous for the applicant to submit the admission portfolio as early as possible. Applicants must submit a complete admission’s packet, and it must be approved before a student is granted regular admission.

Degree Requirements  
Required Courses (15 hours)  
EDL 600 - Research in Administration 3(3-0)  
EDL 660 - Principles of Educational Administration 3(3-0)  
EDL 700 - Advanced Administrative Research 3(3-0)  
EDL 760 - Leadership Theory and Practice 3(3-0)  
EDL 766 - Advanced Educational Law 3(3-0)

Emphasis Strand (15 hours)  
Select one of the following emphases (Note: Off-Campus Programs students will complete Elementary/Middle/Secondary Administration):

(continued)
Doctor of Education (Ed.D.) in Educational Leadership

Minimum Totals for Graduation: 39 - 63 hours

The Ed.D. degree in Educational Leadership is designed to provide in-depth knowledge and skills to educational leaders who seek to develop and refine their knowledge and skills to help transform through practice the educational institution. The program emphasizes the application of scholarship (theory) to the improvement of educational practice. It is intended for individuals in educational leadership careers. Students accepted into the program will be part of a cohort.

Admission Requirements, Retention & Termination Standards

Admission

In order to be considered for admission to the program, an applicant must have completed a master’s degree with a minimum graduate grade point average of 3.5 and must have completed three years of professional education experience. (Preference will be given to those with leadership experience.)

Review of complete application begins March 1 and continues until the cohort is filled. A completed application packet will include the following materials:

1. a completed graduate application;
2. transcripts of all undergraduate and graduate work;
3. resume of professional education experience;
4. Graduate Record Exam (GRE) or Miller Analogy Test (MAT);
5. short essay describing the relationship between the applicant’s professional goals and the Ed.D. program;
6. description of a professional problem the applicant has encountered and an analysis of the resolution of that problem;
7. three letters of recommendation (dated and on organizational letterhead) that attest to the applicant’s potential to succeed in the program.

After reviewing the credentials of the applicants, the Doctoral Program Committee will select those to be interviewed.

The Doctoral Program Committee will make all decisions regarding admissions, selecting the cohort from those interviewed. Preference will be given to those applicants who have a demonstrated history of educational leadership and who have career goals consistent with the expectations of this program. The total application package will be evaluated holistically.

Program Requirements

Progress through the program is based upon obtaining satisfactory grades (a 3.25 GPA average overall), passing written and oral comprehensive exams, and completing a doctoral dissertation. Students who have an earned Educational Specialist degree may be able to waive some program requirements.

Research Requirements (9 hours)

The research component encompasses both quantitative and qualitative research methods. The competencies to be developed are essential to interpreting and evaluating research studies to be encountered in all course work as well as to completing the dissertation requirement.

EDL 700 - Advanced Administrative Research 3(3-0)
EDL 800 - Qualitative Analysis in Educational Leadership 3(3-0)
EDL 801 - Quantitative Analysis in Educational Leadership 3(3-0)
**Academic Core (15 hours)**

The academic core component includes all of the critical areas of study for future educational leaders: foundations, organizational and leadership analyses, and the issues which change and dominate over time. The courses are designed to provide students with the underpinnings to understand and to act effectively upon the challenges confronting the educational organization.

- EDL 815 - Ethical Leadership 3(3-0)
- EDL 855 - Organizational Culture and Change in Educational Institutions 3(3-0)
- EDL 860 - Organizational Theory in Educational Institutions 3(3-0)
- EDL 899 - Doctoral Seminar 3-6(Spec)

**Concentration (12 hours)**

There are four choices from which students may select a concentration, based upon their needs assessment. The specific courses will be determined in consultation between the student and the academic advisor.

- **Concentration I**
  - **K-12 Leadership**
    - EDL 775 - Educational Policy Analysis 3(3-0)
      - Plus nine hours of electives to be chosen in consultation with program advisor.
  - **Concentration II**
  - **K-12 Curriculum**
    - EDL 777 - Instructional Supervision for Administrators 3(3-0)
      - Plus nine hours of electives to be chosen in consultation with program advisor.
  - **Concentration III**
  - **Higher Education Leadership**
    - EDL 876 - Higher Education Policy 3(3-0)
      - Plus nine hours of electives to be chosen in consultation with program advisor.
  - **Concentration IV**
  - **Educational Technology**
    - EDU 707 - Seminar: Issues in Educational Technology 3(3-0)
      - Plus nine hours of electives to be chosen in consultation with program advisor.

- **Cognate (9 hours)**

  The cognate, to be determined jointly by the student and advisor, can be completed in one academic discipline or by taking a combination of courses from more than one academic discipline.

- **Field-Based Experience (3-6 hours)**

  This internship experience will assist students in strengthening their leadership competencies. The number of credit hours required will be determined with the student’s advisor based upon the student’s past professional experience and personal career objectives. Forty-five contact hours will be required for each credit earned. A letter of understanding will be developed between the student, district, and university supervisor as to the responsibilities and expectations for the experience.

- EDL 880 - Doctoral Internship 3-6(Spec)

- **Comprehensive Exams**

  Students will be expected to take written qualifying exams upon the completion of their academic core classes. Qualifying exams will be administered in the fall and spring of each year. Comprehensive review of all program materials in completed with the successful defense of a student’s dissertation proposal. At this point, students are advanced to candidacy.

**Dissertation (15 hours)**

The student will complete three steps in the dissertation process:

1. the proposal review stage in which there is a formal defense of the dissertation proposal;
2. conducting the research, analyzing the results, and writing the final document;
3. an oral defense of the dissertation.

**Total: 39-63 semester hours**

Note: Students with an earned Ed.S. may be eligible for fewer than the maximum total program credits indicated if they meet university requirements.

**Course Descriptions: EDL**

- **EDL 565 Legal Aspects of Student Discipline 3(3-0)**
  - Legal procedures for administering student discipline and methods of providing a safe and orderly learning environment.
  - Prerequisites: senior or graduate status.

- **EDL 566 Introduction to School Law 3(3-0)**
  - Educational law as it relates to teaching.

- **EDL 567 Principles of Community Education 3(3-0)**
  - Concepts, programs, and practices in community education.

- **EDL 592 Workshop in Educational Administration 1-8(Spec)**
  - Identification and study of the problems of school administration.

- **EDL 600 Research in Administration 3(3-0)**
  - Methods of research focused on the needs of school administrators and administrators of other community-based human service agencies.
  - Prerequisites: graduate status. This course is approved for offering in a distance learning format.

- **EDL 609 Administration of Volunteer Programs 3(3-0)**
  - Course deals with use of volunteers in public, private, and voluntary agencies.
  - Prerequisites: graduate status. This course is approved for offering in a distance learning format.

- **EDL 610 Grants and Fund Procurement 3(3-0)**
  - Methods of obtaining grants from public and private sources, conducting fund drives, and administering educational projects.

- **EDL 615 Educational Technology for Administrators 3(3-0)**
  - The development of knowledge, philosophy, skills and practical applications regarding technology for administrators.
  - This course is approved for offering in a distance learning format.

- **EDL 619 Continuing Registration for Final Research Project 1-10**
  - Non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

- **EDL 620 Administration Within Diverse Populations 3(3-0)**
  - Examination of critical issues, trends, and practices relative to cultural diversity that influences the organization and administration of school and other human service organizations.

- **EDL 622 Adult Literacy and Society 3(3-0)**
  - A study of the theories of language and literacy and their relationship to the practices of adult education.
EDL 624 Planning for Instruction in Nontraditional Settings 3(3-0)
- Analyze problems and issues in administration of learning programs for students located in non-traditional settings including prisons, malls, churches, factories, and other workplace situations.
- Prerequisites: graduate status.

EDL 626 The Adult Learner 3(3-0)
- A study of learning in adulthood, how to facilitate that learning, and the characteristics of adult learners.

EDL 628 Administration of Adult and Continuing Education 3(3-0)
- A study of the organization, structure, and management of adult and continuing education programs and organizations in post-secondary institutions.

EDL 636 Higher Education Law 3(3-0)
- An introduction to the law as it relates to higher education, including student personnel problems, collective bargaining, finance, liability, personnel, and malpractice.

EDL 645 Charter School Leadership 3(3-0)
- Application of leadership and systems theories to the administration of charter schools. This course is approved for offering in a distance learning format.

EDL 650 Professional Studies: Special Topics 1-6(Spec)
- Investigation and in-depth study of new knowledge or current problem areas. Prerequisite: department permission.

EDL 651 Program Review and Evaluation 3(3-0)
- Decision-making theory and methods of evaluation for administrators. Models and techniques for needs assessment, product development, and formative and summative evaluations. This course is approved for offering in a distance learning format.

EDL 652 Global Education Studies 3-12(Spec)
- Study of educational systems in an international context. Trip destinations will vary. This course may be repeated up to 12 credits if course content is different. Prerequisite: department permission.

EDL 656 Public School Law 3(3-0)
- The law as it relates to education. This course is approved for offering in a distance learning format.

EDL 660 Principles of Educational Administration 3(3-0)
- Philosophy and principles underlying the organization and operation of education in the United States. This course is approved for offering in a distance learning format.

EDL 661 School and Community Relations 3(3-0)
- Public relations responsibilities of school board and staff members. This course is approved for offering in a distance learning format.

EDL 662 School Business Administration & Facilities Management 3(3-0)
- An exploration of school business administration and facilities management concepts, with emphasis on school-site administration. This course is approved for offering in a distance learning format.

EDL 663 Personnel Administration 3(3-0)
- The determination of need, satisfaction of need, and means of securing efficient personnel service. Emphasis on environment factors essential to efficiency. This course is approved for offering in a distance learning format.

EDL 664 Public School Finance 3(3-0)
- A short history and consideration of problems relating to taxation, the budget, local millage, school building bond issues and state aid.

EDL 665 School Plant: Planning, Management, and Operation 3(3-0)
- Planning, management, and utilization of educational facilities, property, and equipment.

EDL 667 Administration of Community Education 3(3-0)
- Identification of community needs, and organization and management of new and ongoing programs.

EDL 668 Educational Survey 2(2-0)
- The techniques of surveys and experience in surveys encompassing the social, economic, and educational resources of Michigan communities. Permission of the instructor required.

EDL 670 Administration of Elementary Schools 3(3-0)
- Current theories, principles, and practices relative to the organization, administration, and operation of elementary schools.

EDL 671 Administration of Middle Schools 3(3-0)
- Current theories, principles, and practices relative to the organization, administration, and operation of the emergent middle schools.

EDL 672 Administration of Secondary Schools 3(3-0)
- General problems of organization, supervision, and management of the high school.

EDL 673 Administration of the School District 3(3-0)
- Study of the functions of school district management with special emphasis on the role of the superintendent and other administrators with district-wide responsibilities.

EDL 674 Administration of Intermediate School Districts 3(3-0)
- Purposes, functions, and responsibilities of intermediate school districts.

EDL 675 Administration of Special Education 3(3-0)
- Organization and administration of education programs for exceptional children. Identical with SPE 640. Credit may not be earned in more than one of these courses.

EDL 676 Administration of Community Colleges 3(3-0)
- Structure, organization, and management of the community college.

EDL 677 The American College Student 3(3-0)
- A review of who attends American colleges, how campus environments affect students’ collegiate experiences, and how these cultural experiences affect students.

EDL 679 Administration of School Transportation Systems 3(3-0)
- Objectives, techniques, and practices in management of school transportation services.

EDL 680 Teaching in Higher Education Settings 3(3-0)
- Study of classroom teaching methods and practices in college environments. Review of active learning techniques, curriculum construction, and student-learning assessment.

EDL 685 Introduction to Problem Solving in Educational Leadership 3(3-0)
- Introductory examination of the knowledge and skills needed to communicate with organizational members to solve problems and resolve conflict in educational situations and organizations.

EDL 687 Independent Study 1-2(Spec)
- Prerequisite: permission of advisor.

EDL 688 Independent Study 1-2(Spec)
- Prerequisite: permission of advisor.

EDL 689 Independent Study 1-2(Spec)
- Prerequisite: permission of advisor.
EDL 690 Administration of Elementary School Curriculum 3(3-0)
Study, analysis, and application of administration principles to the development, implementation, and evaluation of the elementary school curriculum.

EDL 691 Administration of Middle School Curriculum 3(3-0)
Study, analysis, and application of administration principles to the development, implementation, and evaluation of the middle school.

EDL 692 Administration of Secondary School Curriculum 3(3-0)
Study, analysis, and application of administration principles to the development, implementation, and evaluation of the secondary school curriculum.

EDL 695 Readings in Education 1-2(Spec)
Prerequisite: Permission to register from the unit coordinator during the semester prior to the one in which the student wishes to enroll.

EDL 698 Master's Colloquium 3(3-0)
Capstone seminar to synthesize master's coursework. Students will apply theory to practice in designing and implementing a project. Prerequisites: To be taken in the last semester of the MA in Educational Leadership program. This course is approved for offering in a distance learning format.

EDL 699 Leadership Internship 1-15(Spec)
A period of time spent working with and under the direct supervision of a practicing educational leader. CR/NC only. Prerequisites: Regular admission to master's or specialist program in Department of Educational Leadership. Approval of an internship application and permission of instructor.

EDL 700 Advanced Administrative Research 3(3-0)
Advanced methods of research focused on the needs of the practicing school administrator, administrators of other community-based human service agencies, and the Ed.S. student. Prerequisites: admission to Ed.S. program, EDL 600.

EDL 731 Strategic Planning 3(3-0)
Identification of planning processes to set goals, establish implementation procedures, and evaluate processes and results. Prerequisite: Graduate Status.

EDL 750 Professional Studies Topics 1-6(Spec)
Investigation and in-depth study of a current problem area or the introduction of new knowledge. Prerequisite: department permission (generally limited to Ed.S. candidates).

EDL 757 Student Development Theory 3(3-0)
Introduction of student development theories regarding social identity, intellectual and moral development of college students; review of learning and personality theories for understanding student differences.

EDL 760 Leadership Theory and Practice 3(3-0)
Current management theories and systems as applied to the administration of educational programs. Prerequisite: admission to Educational Specialist program.

EDL 763 Personnel Administration in Higher Education 3(3-0)
Role definition and function of personnel administration in higher education. Budgeting, recruitment, collective bargaining, affirmative action in relation to higher education.

EDL 764 Financing of Higher Education 3(3-0)
An analysis of the funding of higher education and the complex relationship between finance and other aspects of higher education administration.

EDL 766 Advanced Educational Law 3(3-0)
In-depth study of current legal problems. Prerequisite: EDL 656.

EDL 769 Negotiations in Education 3(3-0)
Theory and practice of collective bargaining as it relates to education. Prerequisite: Graduate Status.

EDL 770 Advanced Administration of Elementary Schools 3(3-0)
Skills and perceptions essential to advanced leadership of elementary education programs. Prerequisite: EDL 670 and admission to Educational Specialist program.

EDL 772 Advanced Administration of Secondary Schools 3(3-0)
Study of current management skills and procedures necessary for operating a secondary school. Prerequisites: EDL 672 and admission to Educational Specialist program.

EDL 773 Instructional Supervision for Educational Leaders 3(3-0)
Development of supervisory policies and guidelines for the management of the instructional program in a school. Methods of evaluation, selection, and implementation of new curricula. Prerequisite: Graduate Status.

EDL 774 Women in Educational Leadership 3(3-0)
Study of women's roles both as students and administrators in educational settings. Emphasis is on the identification and study of current issues and gender theories. Prerequisites: EDL 600; Graduate status.

EDL 775 Educational Policy Analysis 3(3-0)
Identification and analysis of source, function, and effect of policies affecting K-12 education.

EDL 776 Administration of Higher Education 3(3-0)
Study of the organization and management of colleges and universities.

EDL 777 Student Affairs Administration 3(3-0)
Study of the organization, structure, management, programs, and functions of student affairs administration in post-secondary education.

EDL 778 Contemporary Issues in Higher Education 3(3-0)
Study of contemporary issues confronting higher education. Emphasis is on the identification, definition, and study of issues and how educational leaders might address them.

EDL 790 Critical Issues: Administration of Elementary Schools 3(3-0)
Analysis of current problems affecting the administration of elementary schools and the development of appropriate alternatives. Prerequisites: EDL 670 or EDL 770 and admission to Educational Specialist program.

EDL 792 Critical Issues: Administration of Secondary Schools 3(3-0)
Analysis of current problems, regulations, laws, and pressures confronting the secondary school principal. Course stresses conflict management and crisis intervention techniques. Prerequisites: EDL 672 or EDL 772 and admission to Educational Specialist program.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDL 796</td>
<td>Critical Issues: Administration of the School District</td>
<td>3(3-0)</td>
<td>Current issues and problems as they relate to the leadership role of the school district administrator. Prerequisites: admission to Educational Specialist program, administrative experience and permission of advisor.</td>
</tr>
<tr>
<td>EDL 797</td>
<td>Field Study</td>
<td>1-6(Spec)</td>
<td>Students cannot enroll for both EDL 797 and EDL 798 to fulfill the requirements of a single degree. CR/NC only</td>
</tr>
<tr>
<td>EDL 798</td>
<td>Thesis</td>
<td>1-6(Spec)</td>
<td>Students cannot enroll for both EDL 797 and EDL 798 to fulfill the requirements of a single degree. CR/NC only</td>
</tr>
<tr>
<td>EDL 800</td>
<td>Qualitative Analysis in Educational Leadership</td>
<td>3(3-0)</td>
<td>Concepts and tools used in conducting qualitative investigations of educational issues and practices. Prerequisites: EDL 600 and EDL 700. Admission to doctoral program in Educational Leadership.</td>
</tr>
<tr>
<td>EDL 801</td>
<td>Quantitative Analysis in Educational Leadership</td>
<td>3(3-0)</td>
<td>Study, analysis, and application of quantitative statistical principles to the development, implementation, and evaluation of educational practices and programs. Prerequisites: EDL 600 and EDL 700; admission to doctoral program in Educational Leadership.</td>
</tr>
<tr>
<td>EDL 810</td>
<td>Ethics in Educational Leadership</td>
<td>3(3-0)</td>
<td>Examination of major intellectual and cultural paths contributing to ethics and modern morality in educational organizations. Emphasis is placed on moral leadership practice. Prerequisites: admission to the doctoral program in Educational Leadership.</td>
</tr>
<tr>
<td>EDL 815</td>
<td>Ethical Leadership</td>
<td>3(3-0)</td>
<td>Examination of major leadership and ethical decision making theories. Emphasis is placed on moral leadership practice. Prerequisites: Admission to the doctoral program in educational leadership.</td>
</tr>
<tr>
<td>EDL 825</td>
<td>Culture of Educational Organizations</td>
<td>3(3-0)</td>
<td>Examination of the school culture, and an analysis of how social, political, and environmental factors affect student behavior and teacher administrator practices. This course is approved for offering in a distance learning format. Prerequisites: admission to the doctoral program in Educational Leadership.</td>
</tr>
<tr>
<td>EDL 855</td>
<td>Organizational Culture and Change in Educational Institutions</td>
<td>3(3-0)</td>
<td>Examination of organizational culture and implication on behavior and educational practices. Fundamental concepts, processes, and procedures concerning the change process. Prerequisites: Admission to the doctoral program in educational leadership.</td>
</tr>
<tr>
<td>EDL 860</td>
<td>Organizational Theory in Educational Institutions</td>
<td>3(3-0)</td>
<td>Focus will be upon the historical development of organizations with an emphasis upon organizational theory, systems theory, organizational behavior, motivation, and leadership. Prerequisites: admission to the doctoral program in Educational Leadership.</td>
</tr>
<tr>
<td>EDL 865</td>
<td>Organizational Change in Educational Institutions</td>
<td>3(3-0)</td>
<td>Fundamental concepts, processes, and procedures concerning the change process. Focus will be change processes and models, aspects of organizational development, and strategic and operational planning. Prerequisites: admission to the doctoral program in Educational Leadership.</td>
</tr>
</tbody>
</table>
Department of Engineering and Technology (EGR, IET, TEC)

College of Science and Technology

Terry Lerch, Acting Chairperson
100 ET Building, (989) 774-3033

Daniel Chen, Ph.D., Mechanical Engineering/CAD & CAE
Frank Cheng, Ph.D., Industrial Robotics, Automation Manufacturing
Brian DeJong, Ph.D., Mechanical Engineering
Qin Hu, Ph.D., Electrical Engineering

The Engineering and Technology Building contains 30 state-of-the-art laboratories and support spaces. Facilities are provided for research and development, automotive technology, plastics technology, mechanical/energy technology, robotics, materials testing, metal fabrication, computer-aided design, manufacturing systems, construction/wood technology, graphic arts, industrial education, safety, electronics instrumentation and design, and engineering design graphics. An auditorium and classrooms are also included in the building.

Since students need a balance of knowledge and applied experience to succeed in today's industrial environment, ample learning opportunities are provided in CMU's laboratories. Selected resources of the university are available for special projects. Contacts with industry are maintained in a variety of ways.

The interaction between E&T faculty and students is continuous. A well-qualified faculty member counsels and advises each student. E&T faculty not only have appropriate academic credentials, many also have technical certificates, professional state engineering registrations, and other forms of recognition for technical applications expertise.

Master of Arts (M.A.) in Industrial Management and Technology

Minimum Totals for Graduation: 30 hours

The Master of Arts in Industrial Management and Technology is designed to provide opportunities for initial or continued professional development for individuals in the occupational areas of industrial supervision, industrial management, industrial production, or industrial technology.

Admission Requirements, Retention & Termination Standards

To be admitted to study on this degree, the student must meet the general requirements for admission to the College of Graduate Studies. This program is open to students with undergraduate degrees in all related fields.

Degree Requirements

Required Courses I (9 hours)
IET 500 - Production Concepts 3(3-0)
IET 502 - Computer Applications in Industry 3(3-0)
plus three hours of graduate statistics.

Required Courses II (2-6 hours)
Select one of the following:
IET 791 - Independent Research 2-6(Spec)
IET 798 - Thesis 1-6(Spec)

The student must write a thesis or two graduate file papers.

Required Courses III (4-10 hours)

Industry
IET 502 - Computer Applications in Industry 3(3-0)
IET 524 - Technology and Environment 3(3-0)
IET 597 - Special Studies 1-6(Spec)
IET 625 - Industrial Internship 2-6(Spec)
IET 694 - Problems in Management and Technology 1-6(Spec)
IET 697 - Special Studies 1-6(Spec)

Required Courses IV (6-10 hours)

Management & Supervision
IET 500 - Production Concepts 3(3-0)
IET 501 - Application of Industrial Management Principles 3(3-0)
IET 597 - Special Studies 1-6(Spec)
IET 636 - Leadership Internship 2-6(Spec)
IET 694 - Problems in Management and Technology 1-6(Spec)
IET 697 - Special Studies 1-6(Spec)

Required Courses V (3-11 hours)

Research
IET 597 - Special Studies 1-6(Spec)
IET 694 - Problems in Management and Technology 1-6(Spec)
IET 697 - Special Studies 1-6(Spec)
IET 791 - Independent Research 2-6(Spec)
IET 798 - Thesis 1-6(Spec)

plus three hours of graduate statistics.

Specialization (2-12 hours)

Courses selected should focus on the student's speciality.

Electives (0-15 hours)

Students can take courses outside the Department of Industrial and Engineering Technology which strengthen their degree program. Courses may be selected from such academic areas as business, mathematics, computer science, industrial psychology or sociology. Students must receive approval from an IET advisor prior to taking departmental or nondepartmental courses for their graduate degree program.

Total: 30 semester hours
Course Descriptions: IET

IET 500 Production Concepts 3(3-0)
Comprehensive review of current factors which influence productivity. Emphasis is placed on the integration of people, methods, machines, materials, and management. Prerequisite: 12 IET credit hours.

IET 501 Application of Industrial Management Principles 3(3-0)
A study of industrial management as a process of coordination that exhibits different patterns depending on the manager’s level in the organization and functional responsibilities. Prerequisite: 12 IET credit hours.

IET 502 Computer Applications in Industry 3(3-0)
General/special purpose, digital/analog computer applications in industry and automation with emphasis on input/output devices and process control. Prerequisite: 12 IET credit hours.

IET 524 Technology and Environment 3(3-0)
A study of the relationship between technology and environment. A systems approach is utilized to examine the optimization of technology within environmental constraints. Prerequisite: 12 IET credit hours.

IET 525 Hazardous Materials Technology 3(3-0)
The course covers hazardous materials and related health, safety, and regulatory issues for persons conducting, supervising, and managing field activities. Prerequisites: IET 327; CHM 120 or CHM 131; junior or senior standing.

IET 526 Industrial Ergonomics 3(2-2)
The study of human characteristics, capacities and limitations for the design of productive, safe, and comfortable work spaces, tools, equipment, tasks, and facilities. Prerequisites: ET 327; or senior/graduate standing and permission of instructor.

IET 527 Industrial Safety Management 3(3-0)
A comprehensive study of safety management systems and their implications related to accident cost analysis and to programs which comply with state and federal standards. Prerequisite: IET 327.

IET 532 Careers and Technology for Children 3(2-2)
Developing interdisciplinary instructional units, manipulatives, and pedagogy to provide K-12 students with meaningful career awareness, exploration, and preparation experiences utilizing industrial materials, tools, and processes. Prerequisite: junior, senior or graduate status in teacher education.

IET 534 Design and Construction of Teaching Aids 2(1-2)
Workshop for planning and constructing three-dimensional teaching aids and devices in various curriculum areas of the elementary and secondary grades. Prerequisite: senior status.

IET 543 Production Printing Methods 3(2-2)
An overview of electronic prepress methods relating to the Macintosh computer environment. Prerequisites: IET 143, IET 349.

IET 551 Coordination in Vocational Education 3(3-0)
Duties, problems, and techniques used in organizing and supervising cooperative education programs, partially designed to meet state certification requirements. Identical to BIS 451. Credit may not be earned in more than one of these courses. Prerequisite: signed authorization.

IET 561 Light Frame Construction Workshop 3(0-6)

IET 567 Construction Safety 3(3-0)
A comprehensive study of construction safety standards, practices, and procedures. Recommended: IET 361.

IET 576 Industrial Automation 3(2-2)
A study of electro mechanical devices, industrial robotics, programmable logic controllers (PLCs), and automated work cell designs. Prerequisites: IET 375; MTH 132; CPS 150 or CPS 180.

IET 590 Green Building and Sustainability 3(3-0)
Comprehensive study of the principles of Green Building and Sustainability. Topics include sustainability, xeriscaping, high performance building, energy efficiency, indoor air quality and environmental stewardship. Prerequisites: IET 361, 368 or graduating standing.

IET 591 Construction Management 3(3-0)
A comprehensive study of construction management standards, practices, and procedures with emphasis on the legal aspects of the private, federal, and state construction industries. Prerequisites: IET 361, IET 561.

IET 594 Research and Development Electronics 3(1-4)
An instructor approved project for individuals who wish to pursue a specialized interest integrating concepts from previous courses. Prerequisite: 12 credit hours in electronics.

IET 597 Special Studies 1-6(Spec)
IET 602 Current Concepts of Industrial Education 2(2-0)
For teachers and administrators who are interested in the role of industrial education. Problems and controversial issues are discussed.

IET 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed their required courses but still need to use university resources to complete their degree requirements.

IET 625 Industrial Internship 2-6(Spec)
Experience in industry covering its general functions and/or specific experiences in a technical area. CR/NC only. Prerequisite: departmental permission.

IET 633 Seminar: Industrial Education 3(3-0)
Review current philosophies, concepts, and trends in industrial education programs related to career awareness, exploration, and preparation opportunities for students, including those with special needs.

IET 635 Curriculum Development: Industrial Education 3(3-0)
Develop curriculum and instructional materials designed to maximize teaching effectiveness, enhance cooperative teaching relationships, and individualize instruction for all students including those with special needs.

IET 636 Leadership Internship 2-6(Spec)
Supervised professional experiences in association with successful practitioners in a given area or field. CR/NC only. Prerequisite: coordinator’s permission.

IET 694 Problems in Management and Technology 1-6(Spec)
Individual investigation and research in an area of industrial education. CR/NC only. Prerequisite: departmental permission.
IET 697 Special Studies 1-6(Spec)  
Individual investigation and research to increase one's technical competency

IET 733 Practicum: Industrial Education/Special Education 3(Spec)  
Cooperative involvement of industrial education and special education teachers in exploring career awareness, exploration, and preparation programs for all students, including those with special needs. Prerequisites: IET 693, IET 635, SPE elective, and permission of the professor.

IET 791 Independent Research 2-6(Spec)  
CR/NC only. Prerequisites: EDU 581 or EDU 660 and departmental permission.

IET 798 Thesis 1-6(Spec)  
CR/NC only. Prerequisites: EDU 581 or EDU 660 and approval of advisor.

Course Descriptions: TEC

TEC 600 Introduction to Technology 3(3-0)  
The study of technology with an emphasis on the technical and sociocultural dimensions of energy, transportation, communication, and production systems.

TEC 700 Readings in Technology 3(3-0)  
A critical analysis of the literature addressing the nature and construct of technology as a major discipline and area of human inquiry. Prerequisite: TEC 600.

Department of English Language and Literature (ENG)

College of Humanities and Social & Behavioral Sciences

Marcy Taylor, Chairperson
215 Anspach Hall, (989) 774-3171

Jeffrey Weinstock, Coordinator of Graduate Studies
Anne Alton, Ph.D., Children's Literature, British Literature
Jeffrey Bean, M.F.A, Creative Writing and Poetry
Ari Berk, Ph.D., Myth, Folklore, Native American Literature
William Brevda, Ph.D., American Literature
Elizabeth Brockman, Ph.D., English Education, Composition
Mary Ann Crawford, Ph.D., Writing Center Director, Linguistics
John Dinan, Ph.D., Composition/Rhetoric
Darrin Doyle, Ph.D., Creative Writing, Fiction
Maureen Eke, Ph.D., African-American Literature and World Literature
Robert Fanning, M.F.A., Creative Writing and Poetry
Richard Forest, Linguistics
Mark Freed, Ph.D., Literary Theory
Pamela Gates, Ph.D., Children's Literature, English Education
Susan Griffith, Ph.D., English Education, Children's Literature
Rose Gubele, Ph.D., Director of Basic Writing, Composition and Rhetoric
Desmond Harding, Ph.D., British Literature
Janice Hartwick-Dressel, Ph.D., Children's Literature, English Education
Troy Hicks, Ph.D., English Education
Cathy Hicks-Kennard, Ph.D., Linguistics
Stephen C. Holder, Ph.D., American Literature
Melinda Krath, Ph.D., Technical Writing
Kristen McDermott, Ph.D., British Literature
Gretchen Papazian, Ph.D., Children Literature, American Literature
Daniel Patterson, Ph.D., American Literature
John R. Pfeiffer, Ph.D., Bibliography, English Literature
Ronald Primeau, Ph.D., Rhetoric, Romantic Literature
Matthew Roberson, Ph.D., Creative Writing, Fiction
Susan Schiller, Ph.D., Composition, Rhetoric
Nate Smith, Ph.D., British Literature
Nicole Sparling, Latin American and World Literature
William Spruiell, Ph.D., Linguistics
Susan Stan, Ph.D., Children's Literature
Susan Steffel, Ph.D., English Education, YA Literature
Marcy Taylor, Ph.D., Composition, English Education
William Wandless, Ph.D., British Literature
Jeffrey Weinstock, Ph.D., American Literature

The Department of English at Central Michigan University offers three graduate degrees: a Master of Arts in English Language and Literature, a Master of Arts in Language and Literature with an option in Creative Writing, a Master of Arts in English Language and Literature with a concentration in Children's/Young Adult Literature, a Master of Arts in Composition and Communication, and a Master of Arts in TESOL (Teaching English to Speakers of Other Languages). A description of each degree program follows.

Graduate classes are small and provide the student with ample opportunity for interaction with professors and other graduate students. Graduate-level classes are offered in the late afternoons and evenings.
Master of Arts (M.A.) in English Language and Literature

Minimum Totals for Graduation: 30 hours

This program is designed to meet the needs of students who wish to teach English at a community college, for students seeking preparation for advanced study at the doctoral level at another university, or for students teaching English at the secondary level who wish to pursue more study in the discipline.

Students must complete at least 15 of their total semester hours at or above the 600 level. At the advisor's discretion up to six hours from other departments may be included.

Admission Requirements, Retention & Termination Standards

To become a candidate for the degree of Master of Arts in English Language and Literature, a student must have an undergraduate major or minor in English with a grade point average of at least 3.0 on a four point average of at least 2.7. For applicants whose native language is not English, a TOEFL score of 550 (213 CBT) and a TWE of at least 5, or a MELAB of 85, are required for admission. All students applying for admission to the Language and Literature program must submit a 7-10 page sample of analytical writing that shows an aptitude to do graduate-level work in English.

Required Courses I (3 hours)

Literary Criticism

Select one of the following:
ENG 535 - History of Literary Criticism 3(3-0)
ENG 636 - Seminar in Critical Problems 3(3-0)

Required Courses II (3 hours)

Language or Linguistics

Select one of the following:
ENG 545 - Chaucer 3(3-0)
ENG 570 - Old English 3(3-0)
ENG 672 - Applied Linguistics in Written Communication 3(3-0)

Required Courses III (3 hours)

Professional Methodologies

ENG 602 - Research Materials and Methods 3(3-0)

Required Courses IV (6 hours)

Two 600-level seminars in literature

Capstone Project (15 hours)

Choose one of the following plans:
Plan A
9 additional hours of course work authorized by the advisor and planned with the student, plus thesis (6 hours) and oral examination over thesis.
ENG 799 - Thesis 1-6(Spec)
Plan B
15 additional hours of course work, authorized by the advisor and planned with the student, plus a scholarly paper.

Total: 30 semester hours

Master of Arts (M.A.) in English Language and Literature:
Creative Writing Concentration

Minimum Totals for Graduation: 30 hours

This program is designed to meet the needs of students who wish to teach English at a community college, for students seeking preparation for advanced study at the doctoral level at another university, or for students teaching English at the secondary level who wish to pursue more study in the discipline.

Admission Requirements, Retention & Termination Standards

To become a candidate for the degree of Master of Arts in English Language and Literature, a student must have an undergraduate major or minor in English with a grade point average of at least 3.0 on a four point scale and a cumulative grade point average of at least 2.7. For applicants whose native language is not English, a TOEFL score of 550 (213 CBT) and a TWE of at least 5, or a MELAB of 85, are required for admission.

The student must submit a portfolio of original poetry or fiction for approval before selecting this concentration.

Required Courses I (3 hours)

Literary Criticism

Select one of the following:
ENG 535 - History of Literary Criticism 3(3-0)
ENG 636 - Seminar in Critical Problems 3(3-0)

Required Courses II (3 hours)

Language or Linguistics

Select one of the following:
ENG 545 - Chaucer 3(3-0)
ENG 570 - Old English 3(3-0)
ENG 672 - Applied Linguistics in Written Communication 3(3-0)

Required Courses III (3 hours)

Professional Methodologies

ENG 602 - Research Materials and Methods 3(3-0)

Required Courses IV (6 hours)

Two 600-level seminars in literature

Thesis Requirement (6 hours)
ENG 799 - Thesis 1-6(Spec)

Other Requirements (6 hours)
Select one of the following:
ENG 691 - Seminar Writing Fiction 3-6(Spec)
ENG 692 - Seminar in Writing Poetry 3-6(Spec)

Electives (3 hours)

Hours authorized by the advisor and planned with the student.

Total: 30 semester hours
Master of Arts (M.A.) in English Language and Literature: Children's/Young Adult Literature

Minimum Totals for Graduation: 30 hours

**Admission Requirements, Retention & Termination Standards**

To become a candidate for the degree of Master of Arts in English Language and Literature, a student must have an undergraduate major or minor in English with a grade point average of at least 3.0 on a four-point scale and a cumulative grade point average of at least 2.7. For applicants whose native language is not English, a TOEFL score of 550 (213 CBT) and a TWE of at least 5, or a MELAB of 85, are required for admission.

**Required Courses I (3 hours)**

**Literary Criticism**

Select one of the following:

- ENG 535 - History of Literary Criticism 3(3-0)
- ENG 636 - Seminar in Critical Problems 3(3-0)

**Required Courses II (3 hours)**

**Language or Linguistics**

Select one of the following:

- ENG 545 - Chaucer 3(3-0)
- ENG 570 - Old English 3(3-0)
- ENG 672 - Applied Linguistics in Written Communication 3(3-0)

**Required Courses III (3 hours)**

**Professional Methodologies**

- ENG 602 - Research Materials and Methods 3(3-0)

**Required Courses IV (6 hours)**

Two 600-level seminars in literature

**Required Courses V (3 hours)**

- ENG 681 - Seminar in Children's Literature 3-9(Spec)

**Required Courses VI (6 hours)**

**Children's Literature**

Select two of the following:

- ENG 580/LLMT 580 - Literature for Young Adults 3(3-0)
- ENG 581 - The History of Children's Literature 3(3-0)
- ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
- ENG 583 - The Heroic Tradition in Children's Literature 3(3-0)
- ENG 681 - Seminar in Children's Literature 3-9(Spec)

**Note:** If the student selects ENG 681 for Required Courses VI, the topic of the seminar must differ from that taken to fulfill Required Courses V.

**Capstone Project (6 hours)**

Choose one of the following plans:

**Plan A (6 hours)**

- Thesis (6 hours) and oral examination over thesis.
  - ENG 799 - Thesis 1-6(Spec)

**Plan B (6 hours)**

- 6 additional hours of course work, authorized by the advisor and planned with the student, plus a scholarly paper.

**Total: 30 semester hours**

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Master of Arts (M.A.) in English Composition and Communication

**Minimum Totals for Graduation: 30 hours**

The Master of Arts degree in English Composition and Communication is a program of courses centering on theory and practice in non-fiction forms of writing. It prepares graduate students to be career writers composing in disciplines other than English, professional writers composing within their own disciplines, creative writers composing in non-fiction forms, or teachers specializing in non-fiction forms. It allows for breadth of background and experience in composition as well as concentration in a selected area of interest. Required courses ground students in writing, editing, and rhetorical analysis, while elective courses give the opportunity to focus on creative, professional and pedagogical development. Students in this program will have priority access to designated English Department computer facilities throughout their course of study.

**Admission Requirements, Retention & Termination Standards**

To become a candidate for the degree of Master of Arts in English Composition and Communication, a student must have a grade point average of at least 3.0 on a four-point scale and a cumulative grade point average of at least 2.7, or demonstrate equivalent academic or professional experience. All candidates for admission to this program must submit a portfolio of representative writing. Students should contact the Graduate Coordinator for a description of what this portfolio should contain and how it should be put together. For applicants whose native language is not English, a TOEFL score of 550 (213 CBT) and a TWE of at least 5, or a MELAB of 85, are required for admission.

Students must complete at least 15 of their total semester hours at or above the 600 level.

**Required Courses (9 hours)**

- ENG 601 - Graduate Composition 3(3-0)
- ENG 637 - Seminar in Rhetoric and Composition 3-6(Spec)
- ENG 638 - Seminar in Textual Analysis and Editing 3(3-0)

**Other Requirement (6 hours)**

Select a thesis or internship as follows:

- ENG 718 - Internship: Teaching 6(Spec)
- ENG 799 - Thesis 1-6(Spec)

**Restricted Electives (9 hours)**

Advanced courses from among any of the following chosen in consultation with an advisor:

- ENG 510 - Writing Center Practicum 1-3(Spec)
- ENG 514 - Language and Media Discourse 3(3-0)
- ENG 517 - Reading and the English Classroom 3(3-0)
- ENG 519 - Teaching of Composition 3(3-0)
- ENG 539 - Seminar in Major Nonfiction Writers 3-9(Spec)
- ENG 571 - Teaching of English to Speakers of Other Languages 3(3-0)
- ENG 573 - Linguistics and Reading 3(3-0)
- ENG 576 - Fundamental Issues in Language 3(3-0)
- ENG 603 - Advanced Professional Communications 3(3-0)
- ENG 615 - Problems in Teaching English 3(3-0)
- ENG 618 - Teacher-Research Methods 3(3-0)
- ENG 637 - Seminar in Rhetoric and Composition 3-6(Spec)
- ENG 672 - Applied Linguistics in Written Communication 3(3-0)
- ENG 675 - Seminar in English Linguistics 3(3-9)
- ENG 691 - Seminar Writing Fiction 3-6(Spec)
- ENG 693 - Seminar in Writing Nonfiction 3-6(Spec)

**Unrestricted Electives (6 hours)**

Advanced courses chosen in consultation with an advisor.

**Total: 30 semester hours**
Master of Arts (M.A.) in TESOL
Teaching English to Speakers of Other Languages

Minimum Totals for Graduation: 30 hours

Admission Requirements, Retention and Termination Standards

To be admitted into the M.A. TESOL program, a student should have an undergraduate major or minor in English, linguistics, language arts, reading or a foreign language, with a grade point average of at least 3.0 in his or her major or minor and a cumulative average of 2.7. Applicants with majors in areas not related to language will be considered on an individual basis. In addition, two years of college foreign language study (or its equivalent) are required.

For applicants whose native language is not English, a TOEFL score of 550 (213 CBT) and a TWE of at least 5, or a MELAB of 85, are required for admission.

Degree Requirements

Required Courses (24 hours)

- ENG 571 - Teaching of English to Speakers of Other Languages 3(3-0)
- ENG 574 - TESOL Materials, Assessment, Curriculum 3(3-0)
- ENG 577 - Introduction to Second Language Acquisition 3(3-0)
- ENG 672 - Applied Linguistics in Written Communication 3(3-0)
- ENG 673 - English Phonology for Language Teachers 3(3-0)
- ENG 674 - English Grammar for Language Teachers 3(3-0)
- ENG 675 - Seminar in English Linguistics 3(3-9)
- ENG 690 - Practicum in TESOL 1-3(Spec)

Note: 3 hours of ENG 675 is required. The remaining 3-6 credits for ENG 675 may be taken as elective course credits.

Electives (6 hours)

- EDU 513 - Foundations of Bilingual Bicultural Education 3(3-0)
- EDU 514 - Methods and Materials for Bilingual Bicultural Education 3(3-0)
- ENG 517 - Reading and the English Classroom 3(3-0)
- ENG 573 - Linguistics and Reading 3(3-0)
- ENG 576 - Fundamental Issues in Language 3(3-0)
- ENG 578 - Applied Sociolinguistics 3(3-0)
- ENG 579 - Topics in English Linguistics 3(Spec)
- ENG 615 - Problems in Teaching English 3(3-0)
- ENG 675 - Seminar in English Linguistics 3(3-9)

Total: 30 semester hours

Note: Students must pass a comprehensive examination. A Plan B paper is required.

Course Descriptions: ENG

ENG 510 Writing Center Practicum 1-3(Spec)
Examines key issues in writing and teaching writing and provides a mediated, instructional experience for working one-on-one with writing. Prerequisites: Enrolled by instructor permission only.

ENG 513 Special Topics 1-6(Spec)

ENG 514 Language and Media Discourse 3(3-0)
Rhetorical theory and techniques in print and non-print media.

ENG 517 Reading and the English Classroom 3(3-0)
The relationship of reading to the teaching of English through an introduction to the reading process, the needs of reluctant readers, and K-12 and ESL literacy issues.

ENG 519 Teaching of Composition 3(3-0)
Research and methodology in the teaching of composition.

ENG 535 History of Literary Criticism 3(3-0)
Review of critical attitudes and approaches of enduring significance. Prerequisite: 6 hours of literature.

ENG 539 Seminar in Major Nonfiction Writers 3-9(Spec)
Creative and critical approaches to the study of representative works by selected major writers of literary or creative nonfiction. May be repeated to a maximum of 9 hours. Prerequisites: Graduate status; or ENG 101 or ENG 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better; ENG 134 or ENG 234.

ENG 545 Chaucer 3(3-0)
Middle English grammar and pronunciation. The life and works of Chaucer with emphasis on the Canterbury Tales and Troilus and Criseyde.

ENG 547 Seminar in Major British Writers 3-9(Spec)
A study of one or more British writers, selected by the instructor. May be repeated for a maximum of nine credit hours. Prerequisites: Graduate status or the following: Grade of "C" or better in ENG 101, ENG 103/099 or ELI 198; Grade of "C" or better in ENG 201; either ENG 134 or ENG 234.

ENG 549 Advanced Shakespeare: Tragedy and Problem Plays 3(3-0)
Examination of the development of Shakespearean tragedy and the final plays. Prerequisite: a previous university course in Shakespeare (ENG 349).

ENG 559 Seminar in Major American Writers 3-9(Spec)
A study of several American writers selected by the instructor. Recommended: 6 hours of American literature. May be repeated to a maximum of 9 hours.

ENG 561 European Romanticism 3(3-0)
Comparative exploration of the Romantic movement in literature and philosophy with special attention to Germany and France. Prerequisite: Graduate status or ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better; either ENG 134 or ENG 234. Recommended: 6 hrs of literature courses.

ENG 569 Seminar in Major World Writers 3-9(Spec)
A study of one or more writers, selected by the instructor, from various regions of the world. May be repeated for a maximum of nine credit hours. Prerequisites: Graduate status or the following: ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better; either ENG 134 or ENG 234. Recommended: 6-9 hours of ENG 300 and/or ENG 400 level courses.

ENG 570 Old English 3(3-0)
Grammar and pronunciation with readings from literature of the Old English period.

ENG 571 Teaching of English to Speakers of Other Languages 3(3-0)
Principles and techniques for teaching English to students whose first language is not English. Prerequisite: ENG 375.

ENG 573 Linguistics and Reading 3(3-0)
The reading process, the effects of language on reading, the relation between language and writing, and the ways people process information. Prerequisite: ENG 375 or ENG 576.

ENG 574 TESOL Materials, Assessment, Curriculum 3(3-0)
Techniques for designing curricula, teaching materials, and tests and other assessment tools for ESL/EFL or bilingual/bicultural classrooms. Prerequisites: ENG 571; Graduate status or the following: ENG 101 or 103/099 or ELI 198 with a grade of C or better; ENG 201 with a grade of C or better.
ENG 576 Fundamental Issues in Language 3(3-0)
A study of the basic facts of language acquisition, language history, language variation across cultures and social groups, and meaning and reality.

ENG 577 Introduction to Second Language Acquisition 3(3-0)
An introduction to the principles and theories of second language acquisition, and their implications for language teaching. Prerequisites: ENG 375.

ENG 578 Applied Sociolinguistics 3(3-0)
Topics include cross-cultural aspects of conversation, speech act theory, language and gender, non-verbal behavior. Role of social-cultural variables in language acquisition will also be discussed. Prerequisites: ENG 375.

ENG 579 Topics in English Linguistics 3-9(Spec)
Practical and theoretical problems involving language and its description. May be repeated to a maximum of 9 hours. Prerequisite: ENG 375.

ENG 580 Literature for Young Adults 3(3-0)
Reading interests and library materials of junior and senior high students; methods of stimulating reading. Subject grouping of books related to adolescent reading interests/needs. Identical to LMT 580. Credit may not be earned in more than one of these courses. Prerequisites: Completion of 86 hours, ENG 201 with a grade of C or better, One of: ENG 134 or ENG 234 or ENG 381; or graduate status.

ENG 581 The History of Children’s Literature 3(3-0)
Major trends in the history of children’s literature as they emerged under certain philosophical, educational, and social influences in England, America, and Europe. Emphasis on literary analysis. Prerequisites: ENG 201 with a grade of C or better, One of: ENG 134 or ENG 234 or ENG 381; or graduate status.

ENG 582 Cultural Pluralism in Young Adult and Children’s Literature 3(3-0)
An exploration of the literature and heritage of diverse American cultures, primarily through folk literature, fiction, and biography. Prerequisite: Graduate status or the following; ENG 101 or 103/099 or ELL 198 with a grade of C or better; ENG 201 with a grade of C or better; ENG 134 or 234 or 381. (University Program Group IV-C).

ENG 583 The Heroic Tradition in Children’s Literature 3(3-0)
Study of the hero in epic, myth, folktale, and legend; including modern examples.

ENG 601 Graduate Composition 3(3-0)
Applications of various approaches to writing nonfiction for teaching and nonteaching majors who wish to perfect their own writing.

ENG 602 Research Materials and Methods 3(3-0)
Instruction in materials and methods for research in language and literature. Prerequisites: Admission to Graduate Program in English.

ENG 603 Advanced Professional Communications 3(3-0)
A study of the requirements of effective writing in professional fields. Prerequisite: ENG 303; Recommended: Previous work-related experience with a professional communications focus.

ENG 614 Practicum in Teaching College Composition 3(3-0)
Study and practice of the theories, methods, and materials of teaching first-year college composition. Prerequisites: Open to English teaching assistants.

ENG 615 Problems in Teaching English 3(3-0)
An analysis of the issues, methods, and techniques of teaching English.

ENG 616 The Teaching of Creative Writing 3(Spec)
Theory and practice of teaching creative writing. Prerequisite: Accepted into the MFA program.

ENG 618 Teacher-Research Methods 3(3-0)
This course explores and implements classroom-based research methods so that students will learn to become both theorist-practitioners and teacher-practitioners.

ENG 619 Continuing Registration for Final Research Project 1(1-0)
An non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

ENG 621 Seminar in Contemporary Poetry 3(3-0)
A study of selected contemporary poets in the context of major developments in the poetry of the twentieth century. Recommended: 6 hours of literature at the graduate or undergraduate level.

ENG 622 Seminar in Contemporary Fiction 3(3-0)
Study of significant and influential fiction from 1945 to the present. Prerequisites: Graduate status.

ENG 635 Seminar in American Literature 3-9(Spec)
A study of one of the following periods of English literature: A. Literature of Medieval England and the Renaissance; B. Literature of 17th and 18th Century England; C. Literature of 19th Century England; D. Modern Period. Recommended: 6 hours of English literature. May be repeated to a maximum of 9 hours.

ENG 636 Seminar in Critical Problems 3(3-0)
A study of the major theories and theorists in contemporary literary studies and selected critical problems generated by them. Recommended: 6 hours of literature.

ENG 637 Seminar in Rhetoric and Composition 3-6(Spec)
Theoretical issues, practices, history, texts, applications in Rhetoric and Composition. May be repeated to maximum of 6 hours.

ENG 638 Seminar in Textual Analysis and Editing 3(3-0)
A course designed to prepare students for editing responsibilities found in a variety of fields, including education and scholarly publications.

ENG 656 Seminar in American Literature 3-9(Spec)
The role of nature, frontier, or other factors in American literature of one of the following periods: A. Pre-Romantic Period; B. Romantic Period; C. Realistic and Naturalistic Periods; D. Modern Period. Recommended: 6 hours of American literature. May be repeated to a maximum of 9 hours.

ENG 665 Seminar in World Literature 3-9(Spec)
The tracing of ideas through World Literatures from one of the following periods: A. Classical literature; B. Medieval and Renaissance literature; C. 18th and 19th Century literature; D. Modern literature. Recommended: 6 hours of world literature. May be repeated to a maximum of 9 hours.

ENG 672 Applied Linguistics in Written Communication 3(3-0)
Linguistic approaches to textual analysis and the application of research findings in teaching written standard English. Prerequisites: None.
ENG 673 English Phonology for Language Teachers 3(3-0)
Basic elements of English pronunciation, including segmental phonology, general articulation features, rhythm, and intonation. Involves analysis of pronunciation of native and non-native English speakers. Prerequisite: ENG 375.

ENG 674 English Grammar for Language Teachers 3(3-0)
A functional approach to English grammar, examining the uses of the major grammatical constructions. Includes analysis of language of native and non-native speakers of English. Prerequisite: ENG 271.

ENG 675 Seminar in English Linguistics 3-9(3-9)
Problems in sociolinguistics, bilingualism, historical grammar, the application of modern linguistic theory to the teaching of English or foreign languages. Prerequisite: ENG 375; Recommended: Some foreign language study. May be repeated to a maximum of 9 hours.

ENG 681 Seminar in Children’s Literature 3-9(Spec)
Current issues in Children’s Literature Studies. This 3 credit course may be taken up to three times.

ENG 690 Practicum in TESOL 1-3(Spec)
An examination and application of methods, materials, and classroom management techniques necessary to teach English effectively to speakers of other languages. May be repeated to a maximum of 3 hours. Prerequisite: Final one-credit unit requires completion of ENG 571 or 577.

ENG 691 Seminar Writing Fiction 3-6(Spec)
Workshop in fiction writing. May be repeated up to 6 hours. Prerequisite: Admission to M.A. Creative Writing Concentration.

ENG 692 Seminar Writing Poetry 3-6(Spec)
Workshop in poetry writing. May be repeated up to 6 hours. Prerequisite: Admission to M.A. Creative Writing Concentration.

ENG 693 Seminar Writing Nonfiction 3-6(Spec)
Workshop in contemporary approaches to nonfiction writing. This is a 3 credit course which may be taken twice.

ENG 697 Independent Study 3-6(Spec)
Prerequisite: approval by instructor and department chairperson required before registration. May be repeated to a maximum of 6 hours.

ENG 718 Internship Teaching 6(Spec)
Supervised teaching experience in community college for pre-service teachers in Master of Arts in Composition and Communication Program. Prerequisites: 21 credit hours of MAECC graduate work, including the following specific courses: ENG 519, 601, 637, and 638; permission of instructor.

ENG 719 Internship Professional Communication 6(Spec)
Supervised experience in writing, editing, and/or similar technical or professional activity for students in the Master of Arts in Composition and Communication Program. Prerequisites: 24 credit hour of MACC graduate work; permission of instructor and approval of advisor.

ENG 799 Thesis 1-6(Spec)
CR/NC only.

Department of Finance
and Law (BLR, FIN)

College of Business Administration

James Felton, Chairperson
332 Sloan, 989-774-3362

Thomas Anthony, J.D., Law and Public Policy
Bruce Benet, Ph.D., Finance
Vigdis Boasson, Ph.D., Finance
Elizabeth Campbell, J.D., Law and Public Policy
Adam Epstein, J.D., Law and Public Policy
James Felton, Ph.D., Finance
John B. Mitchell, D.B.A., Finance
Rose Prasad, Ph.D., Finance
Kenneth J. Sanney, Ph.D., Law
R. Gene Stout, Ph.D., Finance
Brian Tarrant, ABD, Finance
Daniel E. Vetter, Ph.D., Finance
Nancy White, J.D., Law and Public Policy
Corbin Wright, Ph.D., Finance

Course Descriptions (FIN)

FIN 573 International Finance 3(3-0)
Role of financial manager in international corporations. Environmental problems of foreign exchange. Techniques for making investment decisions, financing marketing operations, long-term capital structure and flow of funds. Prerequisites: FIN 302 or FIN 332; 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor.

FIN 597 Special Topics 1-3(Spec)
Selected topics of interest to students which are not formally included in existing courses. Specific topic will be listed on student’s transcript. Prerequisites: 56 semester hours completed and admission to Professional Business Studies or listed on signed major or minor, or permission of MBA director.

FIN 671 Financial Derivatives 3(3-0)
Advanced treatment of futures, options, and swaps. Emphasis is on how to use derivatives to manage risk as well as more advanced derivative pricing models. Prerequisites: MBA 669, admission to MBA, or permission of MBA director.

FIN 674 Short Term Financial Management 3(3-0)
Cash budgeting, working capital management; short and intermediate term financing. Prerequisite: MBA 669, admission to MBA, or permission of MBA director.

FIN 676 Investment Strategy 3(3-0)
An analysis of various theories and techniques available to achieve superior selection and management of securities.

FIN 678 Long Term Financial Policies 3(3-0)
Factors involved in formulation of long-term financial policies; corporate goals and objectives and the applications in capital budgeting decisions and financing. Prerequisite: MBA 669, admission to MBA, or permission of MBA director.

FIN 791 Independent Studies 1-6(Spec)
Directed reading or research on an approved topic. Prerequisite: permission of instructor and department chairperson and 15 hours of graduate credit in MBA program.
FIN 797  Special Topics 3-6(Spec)  
Enables students to take various topics under the same number. Specific topic will be listed on the student’s transcript. Prerequisites: graduate status and permission of instructor.

FIN 798  Thesis 1-6(Spec)  
An approved thesis in finance. Thesis is directed by a committee in conformity with the Regulations and Directions for the Writing of the Master’s Thesis. CR/NC only.

Course Descriptions (BLR)

BLR 521  Environmental Law and Policy 3(3-0)  
A survey of environmental laws and policies that affect business decision making, stressing macroenvironmental considerations and major Michigan environmental issues. Prerequisites: BLR 202 or BLR 235 or ENV 101; completion of 86 hours; admission to Professional Business Studies or listed on a signed major or minor or permission of MBA director or MBE advisor.

BLR 565  The International Legal Environment of Business 3(3-0)  
Examines global legal environments that affect business and international business relationships. Prerequisites: BLR 202 or BLR 235; 86 semester hours completed and admission to Professional Business Studies or listed on a signed major or minor or graduate status.

BLR 597  Special Topics 1-6(Spec)  
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcript. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

BLR 600  Legal and Social Environment of Business 3(3-0)  
Basic concepts concerning the interrelationship of business and its external environments. Managerial participation in and response to public policy issues and their resolution. Not available for credit toward the M.B.A. or M.S.A. degree.

BLR 631  Public Policy and Regulated Industries 3(3-0)  
Analysis of the procedural and substantive aspects of the regulatory environment which affect the administration of the energy, communications, transportation and similar industries. Prerequisite: admission to M.B.A.

Department of Foreign Languages, Literatures, and Cultures  
(FLN, FRN, GER, SPN)  
College of Humanities and Social & Behavioral Sciences

Susan Knight, Chairperson  
305 Pearce Hall, (989) 774-3786

Marcela Hurtado, Ph.D., Spanish  
Mary-Garland Jackson, Ph.D., Spanish  
James Jones, Ph.D., German  
Susan Knight, Ph.D., Spanish  
Krzysztof Kulawik, Ph.D., Spanish  
Keith Palka, Ph.D., French  
Alejandra Rengifo, Ph.D., Spanish  
Norma Richardson, Ph.D., Spanish  

Students may earn a Master of Arts in Spanish or they may earn a concentration in French, German, or Spanish in the Master of Arts curricula in secondary education, offered through the Department of Teacher Education and Professional Development. To be admitted to this program, a student must have a background in the specific (relevant) foreign language that includes a minimum of 24 semester hours of course work beyond the 100 level, with an acceptable grade point average in the foreign language of concentration.

Master of Arts (M.A.) in Spanish

Minimum Totals for Graduation: 30 hours

This master’s degree provides students with a unique program that is designed to enhance fluency, foster interaction with Hispanic cultures, broaden knowledge, and promote professional development. Students in this program will achieve a high level of proficiency in the Spanish language and will become more deeply and personally acquainted with Hispanic cultures. The program consists of a combination of courses taken at CMU and at sites abroad. As the courses are offered on weekends during the semester and during summers spent abroad, the program will fit many needs, including those of the “nontraditional” learner. Its interdisciplinary and multi-cultural bases will enhance the learning of a wide variety of students, including (but not limited to) teachers of Spanish. The faculty, comprised of experts in linguistics, literature, and cultural studies, strive to provide each student with individual attention. Students will also gain a sense of community and common purpose, especially through participation in the study abroad portions of the program.

At the end of the program, the student will be able to:

1. work effortlessly in all four communication areas (speaking, listening, reading, and writing) of Hispanic societies
2. synthesize current political and social happenings, and interpret these syntheses to speakers of the non-Hispanic world;
3. interact with ease at all social levels by identifying the historical differences which separate Hispanic societies from other societies
4. integrate his/her personal acquaintance with cultures and customs of the Hispanic world (in Spain and Latin America) to those aspects that have been transplanted to the United States;

(continued)
5. explain to persons from the non-Hispanic world the similarities and distinctions within the different Hispanic societies; and
6. understand differences between English and Spanish linguistic aspects such as the sound system, morphemics, and syntax; OR analyze literary texts within their cultural context.

Note: When the student begins the M.A., she or he will write an essay (500 words), on a topic chosen by the Spanish faculty, and engage in a brief oral interview with two members of the Spanish faculty. The purposes of the essay and initial interview are to aid in advising and to establish the student's entering proficiency level.

Admission Requirements, Retention and Termination Standards

In addition to general university requirements for regular admission status, students seeking admission to the master's program in Spanish must:

1. have completed an undergraduate major in Spanish with at least a grade point average of 3.0 in their undergraduate Spanish course (beyond the 100-level)*;
2. have at least a grade point average of 2.7 in their undergraduate coursework;
3. submit letters of reference from three persons who are well acquainted with them and can provide information about their Spanish language skills and prospects for success in this graduate program. The letters are to be sent directly to the Spanish Graduate Coordinator.

Note: Per university policy, conditional admission may be considered for applicants with background or grade point average deficiencies. Courses taken to make up admission deficiencies cannot be counted toward graduate degree requirements. Regular admission status should be requested upon completion of all deficiencies.

Degree Requirements

Required Courses at CMU (15 hours)

Students must complete four of the following:

- SPN 610 - Studies in U.S. Latino Cultures 3-6(3-0)
- SPN 620 - Cultures and Literatures of Spanish America 3-9(Spec)
- SPN 630 - Culture and Literature in Spain 3-9(Spec)
- SPN 640 - History of the Spanish Language 3(3-0)
- SPN 650 - Stylistics 3(3-0)
- SPN 660 - Spanish Phonology 3(3-0)

Required Courses in Latin America (6 hours)

Take one course on Spanish-American Cultural Issues (3 credits) and one course in Language or Linguistics (3 credits)

- SPN 670 - Study Abroad: Latin America 3-6(Spec)

Required Courses in Spain (6 hours)

Take one course on Spanish Culture (3 credits) and one course in Language or Linguistics (3 credits)

- SPN 680 - Study Abroad: Spain 3-6(Spec)

Plan B Paper (3 hours)

- SPN 697 - Independent Study 1-3(Spec)

Other Requirements

To assess the student's oral proficiency in Spanish upon completion of the program, the student must pass an oral interview with a committee of graduate faculty in Spanish at CMU. This oral interview will assess:

1. the student's ability to converse, describe, evaluate, synthesize, and state opinions;
2. the student's accent and pronunciation;
3. the scope of the student's active vocabulary;
4. the student's mastery of grammar.

Total: 30 semester hours

Course Descriptions: FLN

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.

Course Descriptions: FRN

FRN 510 Study Abroad 1-12(Spec)

Intended for advanced undergraduate and graduate students studying abroad. Prerequisites: 6 hours at the 400 level; permission of instructor.

FRN 531 Practicum in French Stylistics 3(3-0)

Study and analysis of composition and style. Recommended: FRN 315, FRN 316; 6 additional FRN credit hours in courses 300 or above.

FRN 591 Studies in French Culture 1-6(Spec)

Topics of immediate interest in French literature and civilization. Credit hours vary, depending on the subject chosen. Recommended: FRN 202.

FRN 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: At least 6 FRN credit hours at the 300 level or above; permission of the instructor and department chairperson.

Course Descriptions: GER

GER 570 Advanced Grammar and Composition 3(3-0)

Analysis of grammatical structures and extensive practice in oral and written expression. Recommended for majors. Prerequisite: GER 312.

GER 597 Independent Study 1-6(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.

Course Descriptions: SPN

SPN 508 Contemporary Spanish Novel and Short Story 3(3-0)

Outstanding novels and short stories of Spain since 1940 reflecting politics, society, economics, and culture of Spain after the Civil War. Recommended: Three (3) credits in Spanish at the 400 level.

SPN 591 Special Topics in Spanish 1-9(Spec)

Recommended: Three (3) credits in Spanish at the 400 level.

SPN 597 Independent Study 1-6(Spec)

The in-depth study of a topic under the direction of a faculty member who together with a student designs the format of the study. Prerequisites: permission of instructor and department chairperson; three (3) credits in Spanish at the 400 level.

SPN 610 Studies in U.S. Latino Cultures 3-6(3-0)

Analysis of Latino culture in the United States in terms of a given topic/genre. The works selected for each topic/genre will be examined in the light of their historical, social, and economic context. Prerequisites: admission to the M.A. program in Spanish. A student may take this course twice, for 3 hours of credit each time, but must choose a different topic/genre for the second 3 hours.
SPN 619 Continuing Registration for Final Research
Project 1 (1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

SPN 620 Cultures and Literatures of Spanish America 3-9(Spec)
An examination of the historical, social, and economic context of the Spanish-American experience through analysis of different cultural representations including film, media, arts, music, and literature. A student may take this course up to three times, for 3 credits each time, when content previously studied is not duplicated. Prerequisites: Admission to the M.A. program in Spanish.

SPN 630 Culture and Literature in Spain 3-9(Spec)
An examination of the historical, social, and economic context of the Peninsular Spanish experience through analysis of different cultural representations including film, media, arts, music, literature. A student may take this course up to three times, for 3 credits each time, when content previously studied is not duplicated. This course is approved for offering in a distance learning format. Prerequisites: Admission to the M.A. program in Spanish.

SPN 640 History of the Spanish Language 3(3-0)
Examines the external and internal history of the Spanish language from its Indo-European origins to the modern period, with special emphasis on the evolution of phonology, morpho-syntax, lexis, and semantics. Prerequisite: admission to the M.A. program in Spanish.

SPN 650 Stylistics 3(3-0)
This course is designed to enable the student to deal with complexities of written Spanish at different levels of the language giving consideration to the fundamental aspects of morpho-syntax and orthography. Prerequisite: admission to the M.A. program in Spanish.

SPN 660 Spanish Phonology 3(3-0)
This course is designed to provide an understanding of Spanish articulatory phonetics in itself, and as contrasting with English articulatory phonetics, and to analyze the phonological system of the Spanish language. Prerequisite: admission to the M.A. program in Spanish.

SPN 670 Study Abroad: Latin America 3-6(Spec)
Courses offered at a site in Latin America selected by the department. Students will take one course in Spanish American Cultural Issues and one in Language or Linguistics, as approved by the advisor. Prerequisite: admission to the M.A. program in Spanish.

SPN 680 Study Abroad: Spain 3-6(Spec)
Courses offered at a site in Spain selected by the department. Students will take one course in Spanish Culture and one in Language or Linguistics, as approved by the advisor. Prerequisite: admission to the M.A. program in Spanish.

SPN 697 Independent Study 1-3(Spec)
The in-depth study of a topic under the direction of a graduate faculty member who together with a student, designs the format of the study. Prerequisites: completion of SPN 670 and SPN 680.

Department of Geography
(ESC, GEO)
College of Science and Technology

Bin Li, Chairperson
296B Dow Science
(989) 774-1165

David Patton, Director, M.S. GISci Program, Ph.D., Cartography and GIS, (989) 774-2798

Brian Becker, Ph.D., Remote Sensing
Bin Li, Ph.D., Geographic Information Systems
David Patton, Ph.D., Cartography and GIS
Xiaolan Wu, Ph.D., Geographic Information Systems
Tao Zheng, Ph.D., Remote Sensing

Master of Science (M.S.) Degree in Geographic Information Sciences (GISci)

Minimum Totals for Graduation: 33 hours
The M.S. program in Geographic Information Sciences (GISci) provides advanced course work and applied research in cartography, geographic information systems (GIS) and remote sensing. Each student will complete a thesis or research project that applies GISci techniques to economic, environmental, or other issues that require spatial data processing and analysis. Graduates will develop skills that will qualify them for a variety of spatial data processing positions that make up a rapidly growing field in the information technology industry.

The M.S. in GISci is a 33 credit hour program available either through a Plan A option (thesis) or Plan B option (non-thesis). Under Plan A, six credits of thesis work (GEO 798) is required. Under Plan B, three credits of a directed research project (GEO 797) is required. The thesis or research project must apply GISci techniques to economic, environmental or other problems that require spatial data analysis. More detailed information is available in the department office.

Admission Requirements, Retention & Termination Standards
All applicants must submit scores for the general GRE. To receive full consideration for financial support beginning in a fall semester, all application materials must be received in the Department of Geography no later than March 1. Applicants should allow approximately one month for materials submitted to the College of Graduate Studies to be processed and forwarded to the department. Details regarding the application process and the program may be found at http://www.cst.cmich.edu/units/geo/.

Students entering the M.S. GISci program are required to have a sound knowledge of the fundamental concepts of cartography, GIS, and remote sensing. It is also expected that M.S. GISci students have a basic knowledge of a computer language, calculus, and statistics as these are skills necessary to understand, manipulate, and develop the analytical methods and algorithms that are the foundations of advance training in Geographic Information Science. A minimum 3.0 GPA in the student's undergraduate major is required.

Computer Programming
One course in a current programming language (CMU equivalent: CPS 110 or CPS 180) with minimum grade of B.

Mathematics and Statistics
One course in Calculus (CMU equivalent: MTH 132) and one course in Statistics (CMU equivalent: STA 282 or STA 382)

(continued)
Fundamental Courses in Geographic Information Sciences

At least, one course in Cartography (CMU equivalent: GEO 203), one course in Introductory Geographic Information Systems (CMU equivalent: GEO 303), and one course in Introductory Remote Sensing (CMU equivalent: GEO 305). Minimum grade of B in each.

Degree Requirements

Required Courses I (15 hours)
GEO 500 - Advanced Cartography 3(2-2)
GEO 503 - Geographic Information Systems 3(2-2)
GEO 508 - Digital Remote Sensing 3(2-2)
GEO 512 - Quantitative Methods for Spatial Analysis 3(2-2)
GEO 701 - Contemporary Spatial Data Management 3(2-2)

Note: A student satisfying any of the required courses or their equivalents prior to entering the program may be excused from these courses. Other courses will be substituted with the approval of the advisor. Credits from these courses will be applied to the 21 hours of required courses. A student must receive a minimum grade of C in each course to have their course work approved for the graduate program.

Required Courses II (6 hours)

Select two courses from the following:
GEO 600 - Dynamic Mapping and Visualization 3(2-2)
GEO 603 - GIS Design and Programming 3(2-2)
GEO 608 - Advanced Digital Remote Sensing 3(2-2)

Note: A student satisfying any of the required courses or their equivalents prior to entering the program may be excused from these courses. Other courses will be substituted with the approval of the advisor. Credits from these courses will be applied to the 21 hours of required courses. A student must receive a minimum grade of C in each course to have their course work approved for the graduate program.

Additional Requirement (3-6 hours)

Select either Plan A (Thesis) or Plan B (Directed Research)
GEO 797 - Directed Research in Geographic Information Sciences 1-6(Spec)
GEO 798 - Thesis 1-6(Spec)

Electives (6-9 hours)

Two or three 500 to 700 level courses in a technical or cognate field(s) in consultation with advisor.

Technical courses might include relevant Computer Science, Mathematics, and/or Statistics courses or Special Topics courses in Cartography, Geographic Information Systems, Global Positioning System (GPS), or Remote Sensing.

Cognate courses might include relevant Biology, Earth Science, Geography, Geology, Political Science, or other courses that would complement the student's area of specialization. A student must receive a minimum grade of C in each elective course.

Total: 33 semester hours

ACCELERATED PROGRAM

Undergraduate students in Geography with a Concentration in Geographic Information Science can pursue a Master of Science degree in Geographic Information Science while still fulfilling the requirements for their Bachelor's degree. The Accelerated Master's Degree Program (AMDP) allows students to reduce the total number of credits to complete their undergraduate and graduate level degrees by applying up to 12 credits (500 and 600 level courses) towards graduate requirements on both degree programs.

Admission Criteria:

Students must have an overall undergraduate grade point average (GPA) of at least 3.25 and have completed a minimum of 86 credits towards a Bachelor’s degree, including all University Program requirements (including transfer and/or AP credits) the semester that they apply for admission to the Accelerated MS program in Geographic Information Science. Students must also satisfy all other requirements for regular admission to the MS program in Geographic Information Science to be eligible for the accelerated program including the completion of GEO 203, 303 and 305, MTH 130, STA 382 and CPS 110 or 180.

During the fourth year, students will complete 12 credits of course work that will be counted towards both the undergraduate and graduate degrees. The student is responsible for fulfilling all of the requirements of the undergraduate degree and, therefore, additional credits may need to be taken to complete the Bachelor of Science degree requirements during the fourth year.

A sample curriculum for a student who has completed 94 credit hours of undergraduate course work is given below:

Year Four:
Fall
GEO 500 (3)
GEO 503 (3)
Undergraduate courses (9)
Total: 15 credits
Spring
GEO 508 (3)
GEO 512 (3)
Undergraduate courses (9)
Total: 15 credits

Year Five:
Fall
GEO 600, 603, or 608 (3)
GEO 701 (3)
Graduate Electives (6)
Total: 12 credits
Spring
GEO 600, 603 or 608 (3)
GEO 798 (Plan A) or 797 (Plan B) (6)
Total: 9 credits

Certificate in Data Mining

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

Course Descriptions: GEO

GEO 500 Advanced Cartography 3(2-2)
Advanced techniques for cartographic exploration and communication. Cartographic representation of multivariate data, interactive and animated cartography, and Web-based cartographic communication. Prerequisite: GEO 303.

GEO 503 Geographic Information Systems 3(2-2)
The techniques of computer-assisted analysis and display of spatially ordered geographic data. Students will use vector and raster GIS. Prerequisites: GEO 303, GEO 305.

GEO 506 Applications in Remote Sensing of the Environment 3(2-2)
The study of imagery to reveal characteristics of natural and cultural environment. Photographic, thermal infrared, and radar imagery to be considered, emphasis on aerial photography. Prerequisite: GEO 305.
GEO 508 Digital Remote Sensing 3(2-2)  
Computer processing and data analysis of digital remote sensing data. Emphasis on multispectral image processing and analysis using standard image processing software. Prerequisites: GEO 303, 305. Recommended: STA 382.

GEO 511 International Geographic Experience 3-6(Spec)  
Experience in field research techniques and knowledge of regions outside the United States. International travel is required. May be repeated one time only. Prerequisites: 6 semester hours of 300 level or higher Geography course.

GEO 512 Quantitative Methods for Spatial Analysis 3(2-2)  
Statistical techniques for solving spatial problems. Descriptive and inferential spatial statistics. Point pattern analysis. Prerequisites: GEO 303; STA 382.

GEO 513 Geographic Information Systems for Social Sciences 3(2-2)  
Spatial data visualization and analysis using Geographic Information Systems (GIS) with emphasis on application to social sciences, planning, public policy, and business research. Co-requisites: GEO 303.

GEO 515 Geography of the Great Lakes Region 3(3-0)  
To increase awareness of the complexity and unity of the Great Lakes Region. Study and application of regional concepts to the Great Lakes area. Prerequisites: 6 hours of GEO.

GEO 516 Advanced Remote Sensing Systems 3(2-2)  
Characteristics, processing, and applications based on advanced remote sensing systems including imaging radar, thermal and hyperspectral systems. Prerequisites: GEO 508 and STA 382.

GEO 520 Land Use Planning 3(3-0)  
Study of land use planning history, concepts and techniques. Analysis of federal, state, and local government roles in planning. Examination of specific land use programs. Prerequisites: GEO 303; 6 additional semester hours in either or both GEO or PSC.

GEO 531 Integrated Land Use Planning 3(3-0)  
The integration of land use planning and environmental management concepts and techniques with broader regional economic and environmental planning approaches in the US and abroad. Prerequisites: GEO 530.

GEO 550 Geography for Teachers 3(3-0)  
For teachers who want to upgrade their knowledge of geography, experiment with new teaching techniques, and learn how to make professional in-service presentations to teachers. Graduate credit only. Prerequisites: teacher certification.

GEO 553 GIS Operations and Practices 3(3-0)  
Practices and procedures utilized by professionals in the implementation and maintenance of large-scale GIS operations. Prerequisites: GEO 503 or Graduate Status in the MS GIScience Program.

GEO 575 Special Studies in Geography 1-6(Spec)  
Various special topics offered at an advanced undergraduate and graduate level. Prerequisites: permission of instructor.

GEO 591 Internship 1-12(Spec)  
Experiences in applying geographic techniques to environmental analysis, resource management, and business applications. Up to 3 hours of internship credit can be applied to the geography/earth science major. Identical to GEO 591. Credit may not be earned in more than one of these courses. A full-time internship position for one semester may qualify for 12 hours of credit. Prerequisite: permission of program advisor.

GEO 597 Independent Study 1-9(Spec)  
Exploration of topics in geography agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisites: permission of the instructor and department chairperson; at least 6 hours on the 400 level.

GEO 600 Dynamic Mapping and Visualization 3(2-2)  
Study of the theory and application of advanced methods of cartographic display using dynamic mapping and visualization methods. Prerequisites: GEO 500.

GEO 603 GIS Design and Programming 3(2-2)  
Design and implementation of GIS applications using component software and high level macro languages. Prerequisites: GEO 503; CPS 110 or CPS 180.

GEO 608 Advanced Digital Remote Sensing 3(2-2)  
Advanced image processing and data analysis techniques using contemporary operational and experimental remote sensing systems. Overview of satellite instrumentation and sensor operations. Prerequisites: GEO 508; STA 382.

GEO 619 Continuing Registration for Final Research Project 1(1-0)  
An non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

GEO 701 Contemporary Spatial Data Management 3(2-2)  
Contemporary research and development trends in collection, management, processing and analysis of spatial data. Prerequisites: GEO 500, GEO 503, GEO 508, GEO 512.

GEO 797 Directed Research in Geographic Information Sciences 1-6(Spec)  
Directed research on advanced topics in Geographic Information Sciences. A prospectus of the proposed research project must be approved prior to registration. Prerequisite: Arrangements must be made with supervisor or project supervisor prior to registration. CR/NC only.

GEO 798 Thesis 1-6(Spec)  
A written thesis and oral department seminar on the thesis research. Registration requires Plan A thesis prospectus on file in the Geography Department Office. Prerequisite: Thesis prospectus must be approved by the department chairperson prior to registration. CR/NC only.

Course Descriptions: ESC

ESC 575 Special Studies in Earth Science 1-6(Spec)  
Various special topics offered at an advanced undergraduate and graduate level. Topics announced in Class Schedule Book. Prerequisites: permission of instructor.

ESC 591 Internship 1-12(Spec)  
Experiences in applying geographic techniques to environmental analysis, resource management and business applications. Up to 3 hours credit can be applied to geography major. A full-time internship position for one semester may qualify for 12 hours of credit. Identical to GEO 591. Credit may not be earned in more than one of these courses. Prerequisite: permission of program advisor.

ESC 597 Independent Study 1-9(Spec)  
Exploration of topics in earth science agreed upon by student and instructor. May be taken only by arrangement prior to registration. Prerequisite: 12 hours of earth science credit; permission of both instructor and department chairperson before registration.
Department of Geology (GEL)

College of Science and Technology
Sven Morgan, Chairperson
314 Brooks Hall, (989) 774-3179
Kathleen C. Benison, Ph.D., Sedimentology, Stratigraphy
Patrick Kinnicutt, Ph.D., Science Informatics
Jane M. Matty, Ph.D., Aquatic Geochemistry, Hydrogeology
David J. Matty, Ph.D., Petrology, Geochemistry
Sven Morgan, Ph.D., Structural Geology
Mona Sirbescu, Ph.D., Mineralogy
Reed Wicander, Ph.D., Paleontology

Master of Science (M.S.) in Geology

Minimum Totals for Graduation: 30 hours

The Master of Science degree in Geology is designed to produce well-rounded geologists who can easily accept professional roles in the environmental, petroleum or mining industries, in government, or as independent consultants. In addition, the curriculum prepares students if they choose to pursue a doctoral degree at another institution. Students may tailor their degree to specialize in environmental geochemistry, environmental geobiology, hydrology, petrology/geochemistry, geophysics/tectonics, petrology/structural geology, and palynology/micropaleontology/paleobiology. Interdisciplinary study is encouraged.

Admission Requirements, Retention & Termination Standards

Note: Effective Fall, 2008 through Fall, 2010, the department is not accepting students into the M.S. in Geology. Questions regarding this matter may be directed to the chair of the Department of Geology at 989-774-3179.

Admission to the program requires a baccalaureate degree in geology with an undergraduate grade point average of 3.0 or greater in the major. Undergraduate course work must be at least equivalent to the minimum B.S. course requirements in geology at Central Michigan University. This includes summer field camp or its equivalent, one year of chemistry, one semester of physics, and mathematics through calculus in addition to the upper division geology courses required on our curriculum. Undergraduate deficiencies must be removed without graduate credit. The Graduate Record Examination is required.

Persons with a baccalaureate degree in another area of science may be approved for admission to the program by a special admissions committee, which will prescribe an individual plan of study designed to remove deficiencies.

Degree Requirements

Core Courses (19 hours)
GEL 545 - Biostratigraphy 3(2-2)
GEL 670 - Advanced Structural Geology 3(2-2)
GEL 690 - Earth Evolution 3(2-2)
GEL 730 - Seminar in Geology 1-4(Spec)
GEL 798 - Thesis 1-6(Spec)

Additional Requirement (3 hours)
Select one of the following
GEL 521 - Petrology II 3(2-3)
GEL 522 - Petrology I 3(2-3)

Electives (8 hours)
Graduate elective courses may be chosen from geology or the allied sciences (chemistry, physics, biology, mathematics, computer science), but must have the approval of the advisor.

Total: 30 Semester Hours

Note: Internships with local companies are required or strongly recommended for students planning to work in industry.

Course Descriptions: GEL

GEL 515 Advanced Mineralogical Techniques 3(2-3)
Development of analytical techniques in mineralogy, including identification methods, composition determinations, and procedures in petrofabric analysis. Prerequisite: GEL 315.

GEL 521 Petrology II 3(2-3)
Genesis of metamorphic and non-clastic sedimentary rocks including thin-section investigation of examples of these rocks. Prerequisite: GEL 315.

GEL 522 Petrology I 3(2-3)
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.

GEL 525 Sedimentology 4(3-2)
Mechanisms of transport and deposition of sediments. The physical bases for textures, structures, and fabrics in sedimentary rocks. Environmental and facies analyses. Prerequisites: GEL 440.

GEL 530 Practicum: Paleontology and Stratigraphy 6(Spec)
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)
The classification, stratigraphy, paleoecology, and laboratory preparation of the major groups of microfossils. These include foraminifera, ostracods, conodonts, radiolarians, diatoms, coccolithophorids, dinoflagellates, and acritarchs. Prerequisite: GEL 430.

GEL 545 Biostratigraphy 3(2-2)
The principles and concepts of graphic and quantitative biostratigraphic correlation. Paleocology and how it affects and relates to biostratigraphy. Prerequisites: GEL 430, GEL 440.

GEL 572 Advanced Geophysics 4(2-6)
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.

GEL 575 Special Studies in Geology 1-6(Spec)
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.

GEL 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

GEL 650 Geologic Materials for Science Teachers 3(3-0)
Study of geologic topics treated in primary and secondary curricula. Development of field and laboratory exercises. Prerequisites: 6 credits in earth science and geology.
GEL 660 Organic Geochemistry 3(3-0)
The source, deposition, alteration, and composition of organic materials found in sediments. Emphasis will be on geochemistry of petroleum and natural gas. Prerequisites: CHM 132 and CHM 342 or CHM 346, GEL 440, GEL 385 recommended.

GEL 665 Inorganic Geochemistry 3(3-0)
The application of physiochemical principles to inorganic processes occurring in and upon the earth with emphasis on geochronology and igneous rocks. Prerequisites: GEL 520 or GEL 521, CHM 351.

GEL 670 Advanced Structural Geology 3(2-2)
Principles and concepts of quantitative structural geology with emphasis on application to exploration. Prerequisites: GEL 370, GEL 372.

GEL 675 Special Studies in Geology 2(Spec)
Announced topic of special interest to a student group and to faculty member who wishes to work with the group. Prerequisites: major or minor in geology.

GEL 690 Earth Evolution 3(2-2)
An integrated course in which many of the advanced theories of geology are interwoven in the context of plate tectonics and planetary evolution. Prerequisites: GEL 370, GEL 372.

GEL 697 Independent Study 1-6(Spec)
Qualified self-directed students may explore topics of personal interest with faculty guidance. More than 3 credits permitted only rarely. Prerequisites: graduate standing and permission of geology faculty member.

GEL 730 Seminar in Geology 1-4(Spec)
Seminar on various general and specific topics of a timely nature in geology. Prerequisite: graduate status in geology.

GEL 798 Thesis 1-6(Spec)
A demonstration of research skills based on a laboratory and/or field study culminated in a scientific report. CR/NC only. Prerequisite; graduate status.

School of Health Sciences (DHA, HSC)
The Herbert H. and Grace A. Dow College of Health Professions

Jeffrey Betts, Director
2219 Health Professions Building, (989) 774-6529

Jeffery Betts, Ph.D., Exercise Science and Physiology
Steven Berkshire, Ed.D., Director, Health Administration Division

Jodi Brookins-Fisher, Ph.D., Community Health Education
Mark Cwiek, J.D., Health Administration

Roger Hammer, Ph.D., Exercise Therapy
Lana Ivanitskaya, Ph.D., Health Administration

Roop Jayaraman, Ph.D., Exercise Science
James Johnson, Ph.D., Health Administration

Bernard Kerr, Ed.D., Health Administration

Mark Minelli, Director, Community Health Division, Ph.D., Community Health Education

Irene O’Boyle, Ph.D., Community Health Education

James Pahz, Ed.D., Community Health Education

Richard B. Parr, Ed.D., Exercise Science

William Saltarelli, Ph.D., Exercise Science and Anatomy

Paul Visich, Ph.D., Exercise Science

David Wisner, Director, Health Administration Division, Ph.D., Exercise Science

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 Mount 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.

Master of Arts (M.A.) in Health Promotion and Program Management

Minimum Totals for Graduation: 34 hours

The Master of Arts Degree in Health Promotion and Program Management is designed to meet the needs of community health and human service professionals, including those at the local, state, national, and international level. Students must complete 36 credit hours, 29 to 33 of which are specifically required. Students are required to complete a thesis (Plan A) or conduct an independent research project (Plan B). The program of study prepares students to assess client needs, and to plan, manage, implement, and evaluate health education and health promotion programs. Students will also gain the knowledge and skills necessary to conduct research. When the degree is completed, students will be prepared to take the examination to become Certified Health Education Specialists (CHES).

Admission Requirements, Retention & Termination Standards

Note: Effective Fall, 2008 through Summer, 2010, the department is not accepting students into the M.A. in Health Promotion and Program Management. Questions regarding this matter may be directed to the chair of the Department of Health Sciences at 989-774-.

Admission into the program requires the completion of the following undergraduate prerequisites (or documented equivalent): HSC 211 (Human Anatomy and Physiology), HSC 317 (Community Health), and HSC 319 (Methods and Materials in Community Health Education) Previous practical experience in health may (continued)
substitute for prerequisite coursework with departmental approval. This might include certain assignments in the Peace Corps, other international assignments, or other health-related experience. Application forms for admission to the program are available through the College of Graduate Studies.

Degree Requirements

Core Courses (24 hours)

- HSC 538 - Development of Proposals and Reports in Health Administration (3-0)
- HSC 545 - Health Planning (3-0)
- HSC 604 - Epidemiology (3-0)
- HSC 620 - Adult Health Education Theory and Practice (3-0)
- HSC 650 - Analysis and Interpretation of Research and Literature (3-0)
- HSC 670/PES 670 - Research Methods for Health, Physical Education and Sport, Health and Fitness (3-0)
- HSC 700 - Program Evaluation in the Health Fields (3-0)
- HSC 727 - Professional Seminar (3-0)

Required Course (2-6 hours)

Select either Plan A: Thesis or Plan B: Independent Study from the following:

- HSC 791 - Independent Study 2-3 (Spec)
- HSC 798 - Thesis 1-6 (Spec)

Electives (4-8 hours)

The number of elective hours varies depending on the plan chosen. Choose between 4-8 hours in consultation with an advisor.

Total: 36 semester hours

Doctoral Program in Health Administration (D.H.A.)

Minimum Totals for Graduation: 63 hours

Applications are accepted for admission to the Doctor of Health Administration (DHA) program for the fall cohort start. Applications must be received for the fall start by April 1. Inquire with the DHA secretary at 989-774-1351 or the DHA program director at 989-774-1640.

The program leading to the Doctor of Health Administration degree is designed to provide advanced academic, relevant, and professionally-oriented education. The curricular and learning outcome objectives of this applied doctorate program are directed toward preparing individuals with the theoretical foundations, applied skills and practical expertise required for leadership positions within the healthcare industry. Emphasis will be given to imparting and advancing skills that foster life-long learning, systematic investigation and testing of practices and operational models via data/evidence-based strategies, and the public dissemination, and reporting of new findings within the field. The intent of the program is to provide advanced knowledge, skills, and abilities to practicing health professionals in a convenient, yet rigorous academic environment.

The program course of study is delivered in a sequenced manner of fifteen internet-based courses, six intensive face-to-face two and a half-day seminars, a general comprehensive examination, and an applied dissertation. Students matriculating into this program cannot be granted prior experience credit toward semester credit hour degree requirements. Students matriculating into the DHA program may, with the approval of the program, transfer up to six (6) credits of course work taken in another regionally accredited doctoral program. The applicant must request the transfer and identify which courses he/she wishes to transfer. The DHA Program will review the request and make a determination as to the relevancy of the courses to the program, whether the courses are equivalent to any of the DHA courses, and whether the request will be granted. No transfer credits will be accepted to meet the dissertation requirement nor DHA726 or DHA728. The applicant must have earned at least a B grade on any course being requested to transfer. The applicant needs to submit a transcript showing the courses, a course description and the syllabus for the course. A new group of students will begin studies each year. Each student will be assigned an advisor for the didactic portion of the program. Using a modular format, fifteen courses and six intensive seminars during the first two years of the program comprise the didactic portion of the program. The successful completion of a comprehensive examination at the end of the didactic portion of the program will transition the student to doctoral candidate status where the doctoral candidate will begin their dissertation preparation, proposal, implementation, defense to their doctoral committee, and reporting. During the dissertation phase, each student will work closely with a dissertation advisor/major professor. The didactic portion of the program carries fifty-one (51) semester credit hours and the dissertation portion carries twelve (12) semester credit hours for a total of sixty-three (63) semester credit hours for the entire program. Students will choose between a three (3) year or five (5) year degree plan. Students choosing the three-year option will enroll in two (2) courses per term and generally will complete the program in three years while those choosing the five-year option will normally enroll in one (1) course per term.

Admission Requirements, Retention & Termination Standards

The minimum requirements and standards for applicant admission to the program include the following criteria:

- An earned regionally accredited master's degree in an appropriate area of study (e.g., health administration, business administration, public health, public administration) or a professional degree (e.g., M.D., D.O., D.D.S.). Other areas of graduate study at the master's degree level will be considered by petition to the faculty. GPA will be considered in the admissions process.
- Satisfactory completion of graduate coursework or equivalent must be provided as evidence by student applicants in the areas of health economics or economics, finance, statistics, administration/management, and organizational development/behavior.
- Demonstration of at least five years of work related experience at mid-level or higher health management, administration, or in health policy;
- Oral and written English language proficiency. Applicants whose native language is not English will be required to submit the results of the Test of English as a Foreign Language (TOEFL) scores or another test of English equivalency (such as the ECFMG for physicians who were foreign medical students). This requirement may be waived if prior academic experience and success in other United States colleges/universities or employment settings can be satisfactorily demonstrated;
- Submission of a career goal statement and a current curriculum vitae or resume;
- At least three (3) letters of recommendation from professional colleagues that speak to the applicant's potential to do doctoral work, transcripts and other documentation customarily required for admission to the College of Graduate Studies will be required.
- Successful completion of an admission interview with the program faculty.
- Students admitted to the Program must attend the on-campus new DHA student orientation. If an admitted applicant cannot attend the orientation, he/she will need to defer to another year.
Required Courses I (24 hours)
DHA 700 - Leadership: Foundations and Strategies for Healthcare 3(3-0)
DHA 702 - Probability and Statistics for the Health Professions 3(3-0)
DHA 704 - Population Health 3(3-0)
DHA 705 - Seminar in Public Health 1(1-0)
DHA 706 - Quantitative Analysis in Health Organization 3(3-0)
DHA 708 - Organizational Theory and Behavior for the Health Professions 3(3-0)
DHA 709 - Seminar in Health Dynamics: Current Issues, Trends and Change 1(1-0)
DHA 710 - Qualitative and Operational Analysis in Healthcare 3(3-0)
DHA 712 - Research Methods and Practice for the Health Professions 3(3-0)
DHA 713 - Seminar in Health Services Research 1(1-0)

Required courses II (27 hours)
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)

Required Courses III (12 hours)
DHA 898 - Dissertation Design, Implementation, Defense and Reporting 1-12(Spec)

Total: 63 semester hours

Master of Science in Administration (M.S.A.)

CONCENTRATION IN HEALTH SERVICES ADMINISTRATION

The Master of Science in Administration Program requires 36 Credit Hours of graduate study. The MSA Program provides students with the fundamental principles required for successful administrative careers in the public, private, or nonprofit sectors.

The required core courses of the MSA program (15-21 Credit Hours) provide a comprehensive overview of organizational and human relationships and the administrative mechanisms through which to make sound analytical judgments and decisions.

The Health Services Administration Concentration (15-18 Credit Hours) provides the knowledge and skills required for directors, administrators, and supervisors in the health services field.

Please go to page 214 for Core Classes and Concentrations or to www.grad.cmich.edu/MSA/.

Course Descriptions: DHA

DHA 700 Leadership: Foundations and Strategies for Healthcare 3(3-0)

This course will examine the role of leaders in improving organizations and the relationship between situational leadership strategy, organizational culture, communication, and performance. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 702 Probability and Statistics for the Health Professions 3(3-0)

This course examines statistical and quantitative techniques for problem-solving and decision-making to understand, collect, conduct, and evaluate managerial, biomedical, and scientific research. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 704 Population Health 3(3-0)

This course explores applied epidemiology in relation to population and health including standardizing information, marketing, community health technologies, and monitoring health behaviors of target groups. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 705 Seminar in Public Health 1(1-0)

This seminar focuses on current issues in health promotion and disease prevention, applied epidemiology, community health concerns, and how to positively impact health in communities. CR/NC only. Prerequisites: admission to the Doctor of Health Administration program.

DHA 706 Quantitative Analysis in Health Organization 3(3-0)

This course introduces statistical/quantitative techniques including general linear models, survey research methodology and research application cases, decision-making and problem-solving for health administration. Prerequisites: admission to the Doctor of Health Administration program; DHA 702. This course is approved for offering in a distance learning format.

DHA 708 Organizational Theory and Behavior for the Health Professions 3(3-0)

Integrating theory and concepts from organizational theory and behavior literature, this course provides applications to improve dynamic healthcare organizations throughout the continuum of care. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 709 Seminar in Health Dynamics: Current Issues, Trends and Change 1(1-0)

This seminar will examine current issues, trends and the change necessary to improve the health system using a variety of presentations, group interactions, and discussion. CR/NC only. Prerequisites: admission to the Doctor of Health Administration Program.

DHA 710 Qualitative and Operational Analysis in Healthcare 3(3-0)

The assumptions, theories, and practice of qualitative research are developed. Operations research models for managerial decision-making and problem-solving are presented and applied. Prerequisites: admission to the Doctor of Health Administration program; DHA 702. Recommended: DHA 706. This course is approved for offering in a distance learning format.

DHA 712 Research Methods and Practice for the Health Professions 3(3-0)

This course provides theoretical and applied concepts, techniques, procedures, and technologies used in scientific inquiry and reporting for applied clinical, health administrative, and managerial research. Prerequisites: admission to the Doctor of Health Administration program; DHA 702. Recommended: DHA 706. This course is approved for offering in a distance learning format.
DHA 713 Seminar in Health Services Research 1(1-0)
This seminar will examine research activity and reporting in the areas of healthcare financing, organization, delivery, access and outcomes of health services. CR/NC only. Prerequisites: admission to the Doctor of Health Administration program; DHA 712.

DHA 714 Health Systems Thinking and Practice 3(3-0)
This class examines systems thinking and organizational effectiveness. Students will practice using a variety of systems tools as applied to different organizational problems. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 716 Communication in Health Organizations 3(3-0)
This class examines the delivery and exchange of messages within health organizations. Contexts will include conflict, negotiating, networks, channel selection, knowledge management and public relations. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 717 Seminar in Healthcare Dynamics: Stakeholder Relations 1(1-0)
This seminar will examine the concept of leadership style and how healthcare executives can more effectively communicate with multiple stakeholders both inside and outside the organization. CR/NC only. Prerequisites: admission to the Doctor of Health Administration program.

DHA 718 Healthcare Law, Regulations and Ethics 3(3-0)
This course explores the legal and ethical issues found in the healthcare system, and investigates the healthcare administrator as decision-maker, leader and moral agent. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 720 Health Economics 3(3-0)
Foundational economic and specific health economic theory, trends, market issues and applications are presented to include health insurance and payment theory, practice and applications. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 721 Seminar in Healthcare Policy and Politics 1(1-0)
This seminar will examine the political, legislative and economic forces that influence healthcare policy and regulation development, implementation and consequences of policy and legislation. CR/NC only. This course is approved for offering in a distance learning format. Prerequisites: admission to the Doctor of Health Administration program.

DHA 722 Health Informatics 3(3-0)
This course focuses on the fundamental concepts and applications of managing information as a healthcare corporate asset, emphasizing converting data into information for decision support. Prerequisites: admission to the Doctor of Health Administration program. This course is approved for offering in a distance learning format.

DHA 724 Fiscal Responsibility and Accountability for Health Entities 3(3-0)
This course emphasizes financial management and financial operations theory, principles and concepts as they relate to healthcare organizational decision-making and accountability. Prerequisites: admission to the Doctor of Health Administration program. Recommended: DHA 720. This course is approved for offering in a distance learning format.
HSC 508  Education on Sexual Aggression for School/Community 3(Spec)

This course addresses the realities of sexual aggression, and how schools, corporations, and communities can educate their respective populations on these topics. Identical to PES 508. Credit may not be earned in more than one of these courses. Prerequisites: PES 143.

HSC 510  Independent Reading Experience 1-4(Spec)

Individual reading—an experience designed for professional enrichment. 4-hour maximum. CR/NC only. Prerequisite: Permission of Instructor.

HSC 512  Special Topics in Health Education 1-12(Spec)

In-depth consideration of relevant, pertinent health issues.

HSC 514  Biostatistics and Epidemiology 3(3-0)

This course presents biostatistical and epidemiological concepts, principles and methods as they apply to problems within community and public health environments. Prerequisites: MTH 105; HSC 317.

HSC 516  Travel Course in Health Education 1-6(Spec)

Topics scheduled to study health education, private and voluntary health care programs, museums, hospitals, health clinics, city and school health programs. Prerequisite: Permission of instructor.

HSC 517  Drugs and the Elderly 2(2-0)

An introduction to medication practices and problems among the elderly, and study of selected drugs and their effects on the aging individual. Prerequisites: HSC 390.

HSC 519  Death Education and Suicide Prevention 3(3-0)

A holistic study of the cultural, spiritual, legal, ethical, psychological and controversial aspects of death. Emphasis will also be placed on suicide prevention. Prerequisites: must have completed a minimum of 60 semester hours of coursework.

HSC 520  Health Services Administration 3(3-0)

Analysis of organizational patterns, planning procedures, fiscal management, personnel management, and other administrative concerns. This course is approved for offering in a distance learning format.

HSC 522  Consumer Health Education 2(2-0)

Issues of consumer health related to the individual, the community, and society.

HSC 523  AIDS Education 1(1-0)

A concentrated study of Acquired Immune Deficiency Syndrome, including the origin, prevalence, spread, disease process, psychosocial aspects and implications for society. Prerequisites: HSC 106, or teaching certificate. This course is approved for offering in a distance learning format.

HSC 524  Workshop on Health Fitness 2(Spec)

Guidelines for fitness appraisals and exercise prescription for healthy and high risk adults.

HSC 525  Sexually Transmitted Disease Workshop 1(Spec)

Concentrated study of sexually transmitted diseases, modes of transmission, and role of public health agencies and schools in coping with the problem.

HSC 526  Mental Health 3(3-0)

Concentrated study of mental health and illness as related to home, school, and community. This course is approved for offering in a distance learning format.

HSC 527  Sex Education Workshop 1(Spec)

Concentrated study of sex education and roles of home, school, and community. Not open to students with credit in HSC 222.

HSC 528  Smoking and Health Education Workshop 1(Spec)

Concentrated study of physiological, psychological, sociological, and educational aspects of smoking. Not open to students with credit in HSC 235.

HSC 529  Alcohol Education Workshop 1(1-0)

Concentrated study of physiological, psychological, and sociological aspects of alcohol education. Not open to students with credit in HSC 235. This course is approved for offering in a distance learning format.

HSC 530  Drug Abuse Workshop 1(Spec)

Concentrated study of the effects of drugs and narcotics. Roles of home, school, and community in drug education. Not open to students with credit in HSC 235. This course is approved for offering in a distance learning format.

HSC 532  Diversity Issues in the Health Professions 3(3-0)

Developing an understanding of diversity issues in order to become a more effective multiculturally competent health practitioner. Prerequisites: HSC 106 or HSC 317 or graduate standing.

HSC 534  Workshop in Principles of Cardiovascular Health and Disease 1(Spec)

Concentrated study of the physiological aspects of the cardiovascular system and its adaptation to stress.

HSC 535  Family Planning Programming 1(Spec)

Analysis of the methods of family planning and family planning programming, and their effects on population control.

HSC 536  Health Education Assessment 3(3-0)


HSC 537  Stress Reduction Workshop 1(Spec)

Systematic evaluation of stress and methods used to effectively reduce stress so that a healthier life style is possible.

HSC 538  Development of Proposals and Reports in Health Administration 3(3-0)

Emphasize format, content, and writing skills necessary for administration of health programs to prepare proposals, reports, and publications.

HSC 544  Biostatistics 3(2-1)

Computation of vital statistics' rates and other statistical methods applicable to problems in public health.

HSC 545  Health Planning 3(3-0)

Study of strategic and operational planning methodologies employed by administrators, educators and planners in health care facilities, community health agencies and health programs. Recommended: Junior standing.

HSC 546  Microcomputer Applications to the Health Sciences 3(3-0)

Microcomputer applications in school and community health, health services administration, health promotion and exercise science, application of current software utilized by the health fields. Prerequisite: CPS 100 or BIS 104.

HSC 547  Health Risk Identification and Management 3(3-0)

Health risk factors associated with cardiovascular and other chronic diseases will be identified and studied. Management, and risk to morbidity and mortality will be emphasized. This course is approved for offering in a distance learning format.
HSC 550 Stress Test Administration 3(2-2)

HSC 551 Stress Testing Interpretation 3(3-0)
Course in analysis of information gained from exercise testing, studying deviations from normal, and applications of exercise test information in adult fitness and cardiac rehabilitation programs. Prerequisite: HSC 214, HSC 215, HSC 220, HSC 310, HSC 550.

HSC 552 International Health Systems, Organizations and Policy 3(3-0)
This course presents an overview of health systems structure, service delivery, administrative processes and policy dimensions from an international perspective. Health systems, programs and initiatives from various countries and cultural settings are studied as are global health agencies involved in the coordination of health improvement efforts. Prerequisites: HSC 317.

HSC 553 Cardiac Medications 2(2-0)

HSC 555 Health Education in the Elementary School 3(3-0)
Various components of the elementary school program: instruction, curriculum, services, and administration.

HSC 570 Financial Aspects of Health Services Organizations 3(3-0)
This course addresses the main issues surrounding financial administration of health services organizations, particularly hospitals. Prerequisite: ACC 201.

HSC 571 Legal Aspects of Health Services Organizations 3(3-0)
The issues studied are hospital liability, informed consent, medical staff appointments, tort and health services, ethical issues related to health care.

HSC 572 Quality Improvement in Health Services 3(3-0)
Basics, implementation and application of quality management and improvements specific to health care. Statistical principles and illustrative cases are presented. Recommended: HSC 520.

HSC 580 Teaching Sexuality and Reproductive Health in Schools 2(2-0)
A workshop designed to meet PA 226 guidelines for teacher qualifications in sex education and reproductive health by providing insight into the content of quality K-12 sex education programs. Prerequisites: A teaching certificate or approval of the instructor.

HSC 581 Managed Care: Origins, Organizations, and Operations 3(3-0)
Covers managed care programs, structures, practice models, role of physicians and other clinicians, capitation cost-accounting, and forms of reimbursement. Prerequisites: HSC 507, HSC 520.

HSC 586 Cardiovascular Disease Risk Factors in Children 3(1-4)
Course reviews cardiovascular disease risk factors of children (CVDRF). Students will be involved in 45 hours of service learning, screening CVDRF of area children. Prerequisites: HSC 214, 215, and 220.

HSC 591 Legal & Regulatory Aspects of Long-Term Care 3(3-0)
This course covers the legal and regulatory issues inherent to the long-term care industry in the United States. In addition, this course serves as preparation for individuals wishing to sit for the National Association of Board of Examiners Exam (“National Exam”). Prerequisites: undergraduate students must have completed 56 credit hours; HSC 571 recommended.

HSC 592 Administration Issues in Long-Term Care 3(3-0)
This course covers the facility management issues of long-term care administration, including aspects of business, regulation and human resources. Prerequisites: undergraduate students must have completed 56 credit hours; HSC 570 recommended.

HSC 593 Resident Care Issues in Long-Term Care Administration 3(3-0)
This course covers the residential and clinical aspects of long-term care administration. Prerequisites: undergraduate students must have completed 56 credit hours.

HSC 595 Health Administration Internship 6(6-0)
This course provides the capstone professional experience at a health organization and the opportunity to apply professional skills, knowledge and behaviors learned in the classroom. CR/NC only. Prerequisites: HSC 317, HSC 407, HSC 520, HSC 570, HSC 571 and permission of advisor for undergraduates; HSC 507, HSC 520, HSC 570, HSC 571, and permission of advisor for graduate students.

HSC 598 Nature and Dynamics of Destructive Health Habits 3(3-0)
Etiologies and recovery strategies of substance abuse, eating and sexual disorders and the detrimental health habits which undermine healthy lifestyles. Prerequisites: HSC 235.

HSC 604 Epidemiology 3(3-0)
Factors related to the manifestation of infectious and non-infectious diseases, including tracing their sources, controlling spread, and initiating measures to prevent recurrences.

HSC 605 International Health Education 3(3-0)
Survey course identifying and examining specific health problems, as well as the total health care delivery system of countries throughout the world.

HSC 612 Individualized Learning Experiences 1-10(Spec)
An advisor or an advisory board will assign health-education learning experiences based on needs, background, and projected goals. Students must have the approval of their academic advisors before registering for the course. CR/NC only. Prerequisites: Approval of the academic advisor and permission of the course advisor.

HSC 617 Community and Public Health 3(3-0)
Problems of public health, public health services available to the community, and organization of programs of local, state, and national health agencies.

HSC 619 Continuing Registration for Final Research Project 1(1-0)
An on-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

HSC 620 Adult Health Education Theory and Practice 3(3-0)
Adult learning theories and educational methods as they apply to health education and promotion, with an emphasis on theory-grounded program design, implementation, and evaluation.
History

HSC 630 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 graduate program in exercise science.

HSC 631 Physiology of Exercise 4(3-2)
Physiological basis of human movement and its application to training and performance. Identical with PES 631. Credit may not be earned in more than one of these courses.

HSC 640 Curriculum Design in Health Education 3(3-0)
Systematic development of learning components for the health profession.

HSC 646 Methods of Instruction and Allied Health Profession 3(3-0)
A course designed to familiarize the student with the theory and application of teaching methodologies for the health professional. Not open to students with credit in HSC 346.

HSC 670 Research Methods for Health, Physical Education and Sport, Health and Recreation 3(3-0)
Basic research methods and techniques essential in performing and interpreting scientific studies. Identical to PES 670. Credit may not be earned in more than one of these courses. Recommended: 6 hours of graduate course work completed prior to enrollment.

HSC 700 Program Evaluation in the Health Fields 3(3-0)
Major concepts, issues, and methodologies concerning the evaluation of health services delivery systems will be presented. Included is design, reporting, and utilization of findings.

HSC 727 Professional Seminar 3(3-0)
The study of health education/health promotion which includes history, foundations, literature, ethics and philosophy, professional standards and practice at the state, national and international levels. Prerequisites: 20 completed hours of health education.

HSC 791 Independent Study 2-3(Spec)
Taken as 3 credits for Substance Abuse option, Counseling Master’s. Taken as 2 credits for Health Education Master’s. Not for students taking HSC 798. CR/NC only. Prerequisite: HSC 670 or CED 695.

HSC 798 Thesis 1-6(Spec)
Complete a thesis directed by a committee in conformity with the university’s thesis guidelines. CR/NC only. Prerequisite: HSC 670 and permission of the instructor.

Department of History (HST)

College of Humanities and Social & Behavioral Sciences

Timothy Hall, Chairperson
Powers Hall 106, (989) 774-3374

Thomas L. Benjamin, Ph.D., Latin America
Lane Demas, Ph.D., African American history
Kathleen Donohue, Ph.D., 20th century, U.S.
Randall Doyle, Ph.D., East Asia/Pacific Rim
Carrie Euler, Ph.D., medieval and early modern England
Solomon Getahun, Ph.D., sub-Saharan Africa
Jennifer R. Green, Ph.D., Civil War and reconstruction
Mitchell Hall, Ph.D., recent U.S.
Timothy Hall, Ph.D., colonial, revolutionary U.S.
Doina Harsanyi, Ph.D., European history, France
Eric Johnson, Ph.D., modern Europe
Stephen Jones, Ph.D., African American history
David Macleod, Ph.D., United States social history
Tara McCarthy, Ph.D., U.S. women and gender post 1870
William McDaid, Ph.D., Civil War
Timothy O’Neill, Ph.D., modern Europe
William Pretzer, Ph.D., public history, history of technology
Benjamin Ramirez-Shkwegnaabi, Ph.D., Native American history
John Robertson, Ph.D., ancient history
David Rutherford, Ph.D., Renaissance
Stephen P. Scherer, Ph.D., Russia
James A. Schmiechen, Ph.D., British history, economic and labor history
Gregory Smith, Ph.D., history of ancient Mediterranean world
David Snyder, Ph.D., modern U.S. and U.S. foreign relations
Catherine Tobin, Ph.D., United States social history, immigration

The Department of History offers a Master of Arts degree, a Joint Master of Arts degree, and a Joint Ph.D. in History. The Joint Master of Arts degree and the Joint Ph.D. are offered in association with partner institutions at Erasmus University, Rotterdam, The Netherlands; Friedrich Schiller University, Jena, Germany; the University of Strathclyde, Glasgow, Scotland; and the University of Puebla, Puebla, Mexico.

Master of Arts (M.A.) in History

Minimum Totals for Graduation: 30 hours

The Department of History offers a Master of Arts degree, with an integrated Bachelor of Arts/Master of Arts degree program option.

The Integrated B.A./M.A. degree program allows highly motivated students to accelerate their academic careers by undertaking graduate work toward the traditional Master of Arts degree (not the 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.

Admission Requirements, Retention and Termination Standards

Traditional M.A.:

To be admitted to the M.A. program, a student must present 20 or more hours of history or historically oriented courses in related fields with a grade point average in history of 2.7 or higher.

(continued)
Admission Deadlines
For the traditional M.A., students wishing a fall semester admission must apply no later than July 15. For spring semester admission the deadline is November 1.

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.

Additional Requirement for the Integrated B.A./M.A.: Three to twelve (3-12) hours of the above (except Thesis credit) must have been taken concurrently with the student’s B.A. degree work.

Degree Requirements

Required Courses
HST 600 - Historiography 3(3-0)
1. In addition to HST 600, twenty (20) or more hours in history, with fifteen (15) hours in courses at or above the 600 level.
2. Ten (10) or fewer cognate hours selected with an advisor from one or more of the following fields: anthropology, economics, education, English, geography, philosophy, political science, religion, and sociology. Other fields may be approved by the advisor.
3. At least one history colloquium at the 600 level (HST 690 will not satisfy this requirement).
4. Additional Requirement for the Integrated B.A./M.A.: Three to twelve (3-12) hours of the above (except Thesis credit) must have been taken concurrently with the student’s B.A. degree work.

Additional Requirements
A minimum of six hours of history research and writing courses earned in one of the following ways:

Plan A - Thesis
A thesis, including an oral examination in the field of the thesis.

Note for the Integrated B.A./M.A. program: The integrated plan is intended to encourage research and writing competency in a particular research field, and thus the candidate is encouraged to elect Plan A, the Thesis Option of the M.A. program.

Plan B - Seminars
Either (1) two seminars or (2) one seminar and three hours in HST 791. Students electing Plan B must submit two research papers as evidence of scholarship. These papers must be prepared in connection with a seminar, an independent research course, or a graduate-level course in the Department of History. Each paper must receive a minimum grade of B. In addition, normally after revision, each must be accepted by the professor responsible for the course as satisfactory for permanent filing. Papers must be well written and presented in a proper scholarly format. Their conclusions must rest on interpretation of a substantial body of primary sources. A minimum 6,000 words is suggested.

Total: 30 semester hours

European History Certificate
Minimum Totals for Graduation: 18 hours
This 18 credit hour certificate is designed for regularly admitted graduate students who desire advanced training in European history, but who are not seeking a master’s degree at this time. Credits successfully earned with this certificate program can be transferred toward the M.A. degree. Students may substitute courses only upon approval of the History Graduate Studies Committee. Admission is through the College of Graduate Studies. Students pursuing this certification program should have some prior coursework in European history.

This certificate is granted upon completion of 18 hours within the selected area.

Required Courses (6-18 hours)
At least 6 hours must be taken at the 600-level or above, selected from the following courses:

HST 636 - Colloquium in Ancient History 3(3-0)
HST 650 - Colloquium in European History to 1450 3(3-0)
HST 651 - Colloquium in Early Modern European History 3(3-0)
HST 652 - Colloquium in Modern European 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)

Electives (0-12 hours)
All courses must be selected from the department’s course offerings in European history.

Total: 18 semester hours

Modern History Certificate
Minimum Totals for Graduation: 18 hours
This 18 credit hour certificate is designed for regularly admitted graduate students who desire advanced training in modern history, but who are not seeking a master’s degree at this time. Credits successfully earned with this certificate program can be transferred toward the M.A. degree. Students may substitute courses only upon approval of the History Graduate Studies Committee. Admission is through the College of Graduate Studies. Students pursuing this certification program should have some prior coursework in modern history.

This certificate is granted upon completion of 18 hours within the selected area.

Required Courses (6-18 hours)
At least 6 hours must be taken at the 600-level or above, selected from the following courses:

HST 603 - Colloquium in U.S. History Since 1865 3-6(3-0)
HST 652 - Colloquium in Modern European History 3-6(3-0)
HST 717 - Seminar in the History of Twentieth Century America 3-6(3-0)
HST 758 - Seminar in Twentieth-Century European History 3-6(3-0)

Electives (0-12 hours)
All courses must be selected from the department’s course offerings in modern history. No more than 3 hours may be taken below the 500-level, and then only if approved for graduate credit.

Total: 18 semester hours
United States History Certificate

Minimum Totals for Graduation: 18 hours

This 18 credit hour certificate is designed for regularly admitted graduate students who desire advanced training in United States history, but who are not seeking a master's degree at this time. Credits successfully earned with this certificate program can be transferred toward the M.A. degree. Students may substitute courses only upon approval of the History Graduate Studies Committee. Admission is through the College of Graduate Studies. Students pursuing this certification program should have some prior coursework in United States history.

This certificate is granted upon completion of 18 hours within the selected area.

Required Courses

At least 6 hours must be taken at the 600-level or above, selected from the following courses:
HST 602 - Colloquium in U.S. History to 1865 3-6(3-0)
HST 603 - Colloquium in U.S. History Since 1865 3-6(3-0)
HST 711 - Seminar in Colonial and Revolutionary America 3-6(3-0)
HST 713 - Seminar in the History of Nineteenth Century America 3-6(3-0)
HST 715 - Seminar in the Civil War and Reconstruction 3(3-0)
HST 717 - Seminar in the History of Twentieth Century America 3-6(3-0)
HST 723 - Seminar in American Diplomatic History 3(3-0)

Electives (0-12 hours)

All courses must be selected from the department's course offerings in United States history. No more than 3 hours may be taken below the 500-level, and then only if approved for graduate credit.

Total: 18 semester hours

Joint M.A. in History

Minimum Totals for Graduation: 36 hours

The Joint Master of Arts degree is offered in association with a partner institution abroad.

This degree requires two years of study. Students will complete a year's study (at least 18 credits with a minimum 3.3 GPA) at Central Michigan University and a one-year diploma sequence of courses at a partner institution. Students entering the program at a partner institution will receive one year's credit towards the Joint M.A. for completion of a final post-baccalaureate program entirely in history at a partner institution with the equivalent of a 3.3 GPA. They will then complete the requirements for the Joint M.A. with a prescribed year of study at Central Michigan University.

Certain rules govern the combined two-year program:

1. No more than 50 percent of a student's coursework may be in a single national field.
2. All students must write at least two research papers suitable for filing as evidence of scholarly achievement, 7,000-10,000 words: one completed in a research seminar at CMU and one completed at a partner institution.

It is strongly recommended that students develop a reading knowledge of at least one language other than English or an appropriate research tool such as statistics.

Admission Requirements, Retention & Termination

Standards

Successful applicants will have completed a bachelor's degree or equivalent with at least 20 hours of history or related courses with a GPA of 3.3 or higher.

Students must complete all application materials prior to January 3 for admission to the program in the upcoming fall. Admission is competitive.

Required Courses I (18 hours)

At Central Michigan University: 18 hours of which 12 hours must be at the 600 level or above, including 3 hours in a research seminar at the 700 level, one colloquium in transnational and comparative history (3 hours) and a second colloquium (3 hours). A maximum of 6 hours in cognate disciplines will be accepted if approved by the student's CMU and partner institution's advisors.

Year at CMU

As evidence of scholarship, students must submit a research paper for a permanent file. This paper must be prepared in connection with a research seminar, an independent research course, or a graduate-level course in the Department of History. The paper must receive a minimum grade of B. In addition and normally after revision, the paper must be accepted by the professor responsible for the course as satisfactory for permanent filing. The paper must be well written and presented in a proper scholarly format. Its conclusions must rest on interpretation of a substantial body of primary sources. A minimum length of 7,500 words is suggested. Up to 3 hours of credit may be earned for a practicum course in teaching history at the college level.

Required Courses II (18 hours)

At a partner institution abroad: 18 hours (equivalent) including major research paper/dissertation of 7,500 words or more (equivalent to a 700-level seminar requirement at CMU). Year abroad

The student must complete courses based on the partner institution's post baccalaureate course requirements. General expectations include one course of study in historical methodology if they have not taken such a course at CMU (3-6 hours equivalent), one research seminar paper/dissertation of 7,000-10,000 words (3 hour equivalent) and 9-12 hours (equivalent) of additional course work or directed study.

Total: 36 semester hours

Joint Ph.D. in History

Minimum Totals for Graduation: 54 hours

Admission Requirements, Retention & Termination

Standards

Admission to doctoral study requires the following:

1. Successful applicants will ordinarily have completed a bachelor's degree or equivalent with at least 20 hours of history or related courses with a GPA of 3.3 or higher.
2. Students in the PhD program must maintain at least a 3.3 GPA (or its equivalent at foreign institutions) after the first year of study at Central Michigan University.
3. All applications should include a personal statement of 2-3 pages (600-900 words) describing general fields of interest and proposed subjects of research; preparation for the subjects proposed, including specific coursework, languages, and other relevant training; professional goals.
4. Candidates must submit GRE scores by January 3. The subject area test in History is not required.
5. The application deadline is January 3.
Admission to candidacy for the Ph.D. requires:
1. Demonstration of comprehensive knowledge of appropriate fields in history (defined below), by comprehensive examinations. Students must present two major fields or one major field and two minor fields.
2. Approval of dissertation prospectus.
3. Completion of language requirement for one language other than English.

Candidates for the Central Michigan University Ph.D. must pass a comprehensive examination in two major fields or one major field and two minor fields. Comprehensive examinations in the two major fields chosen or one major and two minor fields will normally be administered during the year following completion of the Joint M.A. in History. The timing of the examination may vary depending upon the candidate’s need for further preparation in particular fields, either by coursework or by directed reading.

Degree Requirements

Students must complete the following sequence during their first two years in the Joint Program:

Required Courses I (18 hours)

At Central Michigan University: 18 hours of which 12 hours must be at the 600 level or above, including 3 hours in a research seminar at the 700 level, one colloquium in transnational and comparative history (3 hours) and a second colloquium (3 hours). A maximum of 6 hours in cognate disciplines will be accepted if approved by the student’s CMU and partner institution’s advisors.

Year at CMU

As evidence of scholarship, students must submit a research paper for a permanent file. This paper must be prepared in connection with a research seminar, an independent research course, or a graduate-level course in the Department of History. The paper must receive a minimum grade of B. In addition and normally after revision, the paper must be accepted by the professor responsible for the course as satisfactory for permanent filing. The paper must be well written and presented in a proper scholarly format. Its conclusions must rest on interpretation of a substantial body of primary sources. A minimum length of 7,500 words is suggested. Up to 3 hours of credit may be earned for a practicum course in teaching history at the college level.

Required Courses II (18 hours)

At a partner institution abroad: 18 hours (equivalent) including major research paper/dissertation of 7,500 words or more (equivalent to a 700-level seminar requirement at CMU).

Students admitted to the Joint PhD program who complete the requirements for the first two years of study will be eligible to receive the Joint MA degree enroute to completing the PhD.

Required Courses III (18 hours)

Students continuing in the program in the third year and beyond must also complete the following requirements:

18 hours post-M.A. elective course work in preparation for field examinations, of which 9 hours must be at the 700 level or above excluding practicums.

Required Courses IV (36 hours dissertation credit)

Additional Requirements for candidacy and completion of degree program:

1. Candidates for the Ph.D. in history must demonstrate reading knowledge of two languages other than English or reading knowledge of one language other than English plus an appropriate research tool such as statistics.
   a. Completion of the language requirement is defined as reading proficiency at least at a level sufficient to conduct graduate-level research.
   b. Completion of the language requirement may be fulfilled in one of the following ways: 1) an examination in which the candidate with the aid of a dictionary will translate, idiomatically, at least two passages totaling no less than 500 words within two hours; 2) completion of CMU’s 202 language course or its equivalent with a grade of at least a B; or 3) an alternative approved by the Graduate Studies Committee.
   c. The successful completion of one language requirement is required prior to admission to Ph.D. candidacy.
   d. Where statistics is chosen as a second non-English language, completion of the language requirement is defined as attainment of at least a B in an appropriate statistics course.

2. Candidates for the Central Michigan University Ph.D. must pass a comprehensive examination in two major fields or one major field and two minor fields.
   a. The student will submit the membership of her/his examination committee to the Graduate Studies Committee for approval.
   b. The examination committee will have a minimum of three members, at least two members per major field and one or two members per minor field. The examination committee will ordinarily provide the student with reading lists relevant to the examination fields, but the examination will not be limited to the lists.
   c. Comprehensive examinations will be scheduled during the third year of graduate study normally the year following the "study abroad-year" except in extraordinary circumstances. Examinations will not be scheduled during summer months. The examination committee will schedule the dates of the major and minor field examinations.
   d. A major field examination will not exceed eight hours and minor field examinations will not exceed four hours.
   e. Comprehensive examinations will be taken on campus in a room selected by the Department of History between the hours of 8 a.m. and 12 noon, and 1 p.m. and 5 p.m. Candidates may use the department’s lap-top computer, a typewriter, or may write the examination by hand.
   f. A candidate may retake any failed examination within a three-to-six month period.
   g. Candidates may take an examination a maximum of two times, and failure to pass after two attempts will lead to dismissal from the program.
   h. Comprehensive examinations will be assessed by the candidate’s examination committee as either pass or fail.

3. The Ph.D. from Central Michigan University will require a minimum of 54 90 hours (including 36 hours of dissertation credit) of approved graduate-level study beyond the B.A. Students who complete the requirements for the Joint M.A. (36 hours) before admission to the Ph.D. program may include their hours earned at the M.A. level within the 90 hour total required for the Ph.D.

4. The Ph.D. from CMU requires completion of a doctoral dissertation that makes significant contribution to knowledge, contains a significant comparative element, and is successfully defended at a formal meeting of the student’s examining committee. Upon admission to candidacy, the student and the chair of the history department of the university where the student is currently in residence will select a committee of three faculty members, at least one from each university, to advise the candidate and supervise the research and writing of the dissertation. Dissertations grounded in two or more national
histories will be encouraged. The examining committee for the dissertation will consist of three faculty members from the university where the majority of research has been done, at least one faculty member from the other university, and at least one external examiner. The chair of the examining committee will serve as director of the candidate’s dissertation and will be responsible for making all arrangements for meetings of the committee.

Major Fields
- United States
- British Isles or Modern Continental Europe
- Early Modern Europe
- The Atlantic World: Comparative North American, European, African, and Latin American History. (Because of its scope, this meets all field requirements.)

Minor Fields
- United States*
- British Isles*
- Modern Continental Europe*
- Ancient Near East and Mediterranean
- Medieval Europe
- Early Modern Europe
- Latin America
- East Asia
- India
- Africa
- Topical Fields (must be transnational): e.g. Crime; Poverty and Social Welfare; Business; Women; Slavery; Ethnicity and Race; Minority Communities and Culture; Reform; Regionalism

*Not available for minor if chosen as major.

When possible, Ph.D. candidates will be encouraged to do some teaching in areas related to their specialization.

Because it is impossible to share the legal authority to award the Ph.D., it will be awarded to some students by Central Michigan University and to others by the partner institution upon successful completion of the shared program. In all cases, the relevant documents will say clearly that the degree results from the shared program. Regulations governing residency requirements and time limitations for completion of degrees will be those of the university where the majority of research has been done, and the dissertation will consist of three faculty members from Central Michigan University.

Total: 90 semester hours

Course Descriptions: HST

HST 505 Tudor England 3(3-0)
A study of the political, religious, social and cultural life of England under the Tudors, with special consideration given the reign of Henry VIII. Recommended: One of HST 101, HST 102, HST 350 or HST 351.

HST 511 Colonial British America 3(3-0)
Explores the social, cultural and political development of British America in the seventeenth and eighteenth centuries. Recommended: One of the following: HST 111, HST 323, HST 324, HST 326, HST 351.

HST 512 Era of the American Revolution 3(3-0)
The causes of the War of Independence, the course of the war, the political, social, and cultural change of the Revolutionary period; and the formation of the Federal Constitution. Recommended: HST 110 or HST 111; HST 301.

HST 513 Era of the Early Republic, 1789-1825 3(3-0)
An investigation of nation-building, the formation of new institutions, ideologies, decision-making, and personalities during the precarious decades following the American Revolution. Recommended: HST 110 or HST 111; HST 301.

HST 514 The Jacksonian Era 3(3-0)
Examines “The Age of the Common Man” for changes in the political and economic structure of America, especially Jacksonians as molders or reflectors of society.

HST 515 Civil War and Reconstruction 3(3-0)
Causes and process of secession, the conduct of the war, and the reconstruction of the South to 1877. Recommended: HST 111 or HST 320.

HST 516 Emergence of Modern America, 1877-1920 3(3-0)
Social, political, cultural, and economic developments from the end of Reconstruction through the Progressive era. Recommended: HST 112 or HST 321.

HST 517 U.S. Rise in World Leadership, 1917-1945 3(3-0)
The United States as a world power after World War I, the decade of the 1920s, the depression era, the impact of modern global war.

HST 518 African-Americans and the Legal Process 3(3-0)
Course examines the unique inter-relationship between African-Americans and the American legal system from Colonial times to the present. Recommended: 6 hours from: HST 111 or HST 320 or HST 324(3) and HST 112 or HST 321 or HST 325 (3).

HST 523 American Diplomatic History, 1775-1898 3(3-0)
The major issues in American diplomacy, beginning with the birth of the Republic and continuing to the Spanish-American War. Prerequisites: HST 110, HST 111.

HST 524 American Diplomatic History since 1898 3(3-0)
The major issues of United States diplomacy, beginning with the Spanish-American War and continuing to the present.

HST 525 The Industrialization of America 3(3-0)
This course analyzes how industrialization transformed America and how it altered living standards, culture, labor, business, and politics. Recommended: 12 hours of humanities and social science.

HST 526 Modern American Political Culture, 1865-Present 3(3-0)
Using cultural texts such as films, novels, monographs and lectures, this course examines American politics and political culture from 1865 to the present. Prerequisites: HST 112 or PSC 105 and 9 additional hours of history or political science; or graduate standing.

HST 532 Michigan History Studies 1-3(Spec)
Individual and group studies in regional and local Michigan history.

HST 535 The Middle East in the Modern Era 3(3-0)
An examination of the history of the Middle East and its relations with Europe and the United States from the 17th century to the present. Prerequisites: HST 237 or admission to the graduate program in history.

HST 537 The Age of Cicero 3(3-0)
Social, political, and intellectual life of the late Roman Republic, based primarily on the reading of contemporary sources in translation.

HST 538 Athens: Classical Period 3(3-0)
Athenian political and social change in the sixth and fifth centuries B.C. relying primarily on contemporary or near contemporary documents in translation. Recommended: HST 238.
HST 542  The Enlightenment in Europe 3(3-0)
The social, cultural, political and intellectual history of Europe in the late seventeenth and eighteenth centuries. Recommended: 6 hours of European history before 1815.

HST 548  Russian Thought 3(3-0)
Currents of Russian thought. Emphasis on the nineteenth century.

HST 558  Europe, 1914-1945 3(3-0)
From the origins of the First World War to the end of the Second World War, emphasizing political, cultural, social and economic change—with stress on the rise of fascism and the failure of democracy. Recommended: One of: HST 102, HST 106, HST 344.

HST 562  The Atlantic World in the Age of Empire 3(3-0)
Study of the political, social, cultural and economic interactions of Europe, Africa, and the Americas from the fifteenth to the nineteenth century. Recommended: One of: HST 111, HST 163, HST 176, HST 324, HST 341, HST 377, HST 511.

HST 576  Colonialism in Africa, 1880s-1960s 3(3-0)
Students will explore events that led to the European colonization of Africa, the process of independence and Africa’s predicament in the post-independence period. Prerequisites: HST 176 or HST 292 or graduate status.

HST 590  Readings in History 1-6(Spec)
Selected topics studied in special arrangement with an instructor. Prerequisites: junior or senior standing with a B average in 12 hours of history, or graduate status; and permission of the instructor and the department chairperson.

HST 595  Internship in Public History 1-6(Spec)
Students learn to apply historical knowledge through supervised work in a public history agency or institution. Prerequisites: permission of academic advisor and work supervisor.

HST 597  Special Studies 1-6(Spec)
Study of a selected historical topic at a level suitable for graduate students. Recommended: 12 hours of HST.

HST 600  Historiography 3(3-0)
History as a discipline, studied from the works of selected historians. Recommended: 12 hours of junior, senior, or graduate-level history.

HST 602  Colloquium in U.S. History to 1865 3-6(3-0)
An investigation of historical interpretations and methodologies dealing with major themes in American history from 1607 to 1865. Recommended: Admission to graduate program in history. A student may take this course twice, for 3 hours of credit each time, but must choose a second instructor for the second 3 hours.

HST 603  Colloquium in U.S. History Since 1865 3-6(3-0)
An investigation of historical interpretations and methodologies dealing with major topics and themes in American history from 1865 to present. Recommended: Admission to the graduate program in history. A student may take this course twice, for 3 hours of credit each time, but must choose a second instructor for the second 3 hours.

HST 619  Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements. HST 636  Colloquium in Ancient History 3-6(3-0)

HST 650  Colloquium in European History to 1450 3(3-0)
An investigation of historians’ interpretations and methodologies on the major topics and themes in ancient and medieval history to 1450. Recommended: Admission to the graduate program in history.

HST 651  Colloquium in Early Modern European History 3-6(3-0)
An analytical investigation of several historical issues, topics, and themes in modern European history (1789 to the present). Recommended: Admission to the graduate program in history. A student may take this course twice, for 3 credit hours each, but must choose a second instructor for the second 3 hours.

HST 652  Colloquium in Modern European History 3-6(3-0)
An investigation of historians’ interpretations and methodologies in early modern European history (1300-1789). Recommended: Admission to graduate program in history. A student may take this course twice, for 3 hours of credit each time, but must choose a second instructor for the second 3 hours.

HST 690  Advanced Readings 1-9(Spec)
Prerequisites: 12 hours of junior, senior, or graduate-level history and permission of the department chairperson and the instructor.

HST 695  Special Studies Abroad 3-15(Spec)
Courses on selected historical issues offered at partner institutions for students in the joint graduate program. Prerequisites: Admission to the joint graduate program in history.

HST 697  Special Studies Colloquium 3-6(3-0)
An investigation of historical interpretations and methodologies of a selected historical topic at a level suitable for graduate students. A student may take this course twice, for three hours of credit each time, but must choose a second instructor for the second three hours. Recommended: Admission to the graduate program in History.

HST 700  Practicum in College Teaching 1-6(Spec)
Training and practice in teaching history at the college level. Prerequisites: appointment as a Graduate Assistant in the Department of History.

HST 710  Seminar in Intellectual and Cultural History 3-6(3-0)
Study of a selected topic in intellectual and cultural history. Recommended: Admission to graduate program in history. A student may take this course twice, for 3 hours of credit each time, but must choose a second instructor for the second 3 hours.

HST 711  Seminar in Colonial and Revolutionary America 3-6(3-0)
Study of a selected topic in the history of colonial British and Revolutionary America. Preparation of a research paper based on primary sources. Recommended: HST 111, HST 511, and at least one of the following: HST 323, HST 324, HST 326, HST 330, HST 351, HST 512, HST 562, HST 602. A student may take this course twice, for 3 hours of credit each time, but must choose a second instructor for the second 3 hours.
HST 713  Seminar in the History of Nineteenth Century America 3-6(3-0)
Study of a selected topic in the history of nineteenth century America. Recommended: HST 111 or HST 112 plus at least one more course in this period of American history. A student may take this course twice, for 3 hours of credit each time, but must choose a second instructor for the second 3 hours.

HST 715  Seminar in the Civil War and Reconstruction 3(3-0)
Primarily devoted to research training and writing techniques, this seminar will focus on a particular phase of the Civil War era. Recommended: HST 111 and HST 112, and a 500-level course in nineteenth-century American history.

HST 717  Seminar in the History of Twentieth Century America 3-6(3-0)
Study of a selected topic in the history of the United States in the twentieth century. Recommended: HST 111 and HST 112, and a 500-level course in twentieth-century American history.

HST 723  Seminar in American Diplomatic History 3(3-0)
Primarily devoted to research training and writing techniques, each seminar will focus on a particular phase of American diplomatic history. Recommended: HST 111 and HST 112 and one course in US history.

HST 738  Seminar in Ancient History 3-6(3-0)
Study of a selected topic from the Ancient World. Development of research skills and scholarly writing appropriate to the field. Recommended: 9 hours of pre-modern history or one year of an ancient language. A student may take this course twice, for 3 credit hours each time, but must choose a second instructor for the second 3 hours.

HST 740  Seminar in Medieval West 3(3-0)
Research training based on primary sources on topics pertinent to the medieval period. Recommended: 6 hours of history including HST 101 and one of the following: HST 200, HST 340, HST 350, HST 505, HST 650.

HST 741  Seminar in Early Modern Europe 3(3-0)
Study of a cultural, intellectual, social, political or economic issue of the period from the Renaissance in Europe through the seventeenth century. Recommended: 6 hours of history including HST 101 and one of the following: HST 340, HST 341, HST 348, HST 350, HST 351, HST 354, or HST 505.

HST 742  Seminar in Eighteenth-Century European History 3(3-0)
Study of a cultural, social, political, or economic issue of the eighteenth century. Recommended: 6 hours of modern European history, including some study of the eighteenth century.

HST 744  Seminar in Nineteenth-Century European History 3-6(3-0)
A study of a major aspect of 19th-century Europe with emphasis on historical method. Recommended: HST 102 or HST 351 plus one additional course in this general area of European history. A student may take this course twice, for 3 credit hours each time, but must choose a second instructor for the second 3 hours.
Master of Science (M.S.) in Apparel Product Development and Merchandising Technology

This program is designed to prepare graduates for positions in apparel and textile product design and development, CAD technology, industry research and development, as well as for careers in higher education and government. Creative solutions, cutting edge technology and real world applications are emphasized at all instructional levels.

Minimum Totals for Graduation: 33 hours

Admission Requirements, Retention & Termination Standards

Students applying for the M.S. degree should have a minimum of 12 hours of undergraduate coursework in apparel merchandising and design or closely related area.

Students accepted for the M.S. program who lack supporting coursework generally are required to make up these deficiencies by taking undergraduate course work in apparel merchandising and design. Equivalent work experience in the field may be counted as supporting coursework toward minimum admission requirements.

Admission to the graduate program in Apparel Product Development and Merchandising Technology includes meeting the following criteria:

1. Submission of the CMU application form for admission to the Graduate School, found at http://www.grad.cmich.edu/forms.htm
2. An earned baccalaureate degree from an accredited institution.
3. Three letters of recommendation, including two from faculty. If it is not possible to obtain faculty references, references should be from professionals who can address your capacity to succeed as a graduate student.
4. One official transcript (with institution's seal) sent directly from each institution attended.
5. A minimum grade point average of 3.0 on a 4.0 scale in the last 60 hours of undergraduate course work.
6. A one-to-two page statement of objectives stating your reasons for pursuing a graduate degree in apparel merchandising and design, your career goals, and the specific area in which you would like to study.
7. Non-refundable application fee.

Degree Requirements

Foundational Courses (9 hours)
Research Methods and Statistics

AMD 604 - Scholarship in Textiles and Clothing 3(3-0)

Plus the following courses, which are to be selected in consultation with advisor:
- One graduate course (3 credits) in Research Methods
- One graduate course (3 credits) in Statistics

Required Courses (12 credit hours)
Apparel Merchandising & Design

Select from the following in consultation with advisor:

AMD 546 - Experimental CAD for Apparel 3(2-2)
AMD 547 - Functional Apparel Design 3(2-2)
AMD 550 - Textiles and Apparel in a Global Economy 3(3-0)
AMD 560 - Apparel Product Development 3(3-0)
AMD 640 - Anthropometrics and Apparel 3(2-2)
AMD 641 - Apparel Presentation Technology 3(2-2)
AMD 655 - Textile Product Evaluation 3(2-2)
AMD 656 - Apparel Retail Technology 3(3-0)
HEV 790 - Independent Study 2-6(Spec)

Note: 3 hours of HEV 790 required.
Supporting Coursework (6 credit hours)
Courses that support the student’s career objectives or research plans that are inside or outside the Human Environmental Studies Department. Courses to be selected in consultation with advisor and may be selected from fields such as industrial engineering, health sciences, art, education, marketing and management, or apparel.

Thesis or Internship Options (6 credit hours)
Select from the following options:
- Plan A - Thesis (6 hours)
  HEV 798 - Thesis 1-6(Spec)
- Plan B - Internship (6 hours)
  AMD 635 - Advanced Internship in Textiles & Apparel 6(Spec)

Total: 33 semester hours

ACCELERATED MASTER OF SCIENCE IN APPAREL PRODUCT DEVELOPMENT AND MERCHANDISING TECHNOLOGY
Advanced undergraduate students majoring in Apparel Merchandising and Design who wish to pursue advanced studies in design, merchandising, product development, and technology relating to the textiles and apparel industry complex may consider an option whereby they can complete their bachelor's degree and a Master of Science in Apparel Product Development and Merchandising Technology in five years. The program requirements on the Accelerated Masters Degree Program are identical to those of the Master of Science in Apparel Product Development and Merchandising Technology, but allow the student to apply 9 credit hours of graduate coursework toward both their bachelor's degree and their Master of Science in Apparel Product Development and Merchandising Technology.

Admission Requirements:

Admission to the Accelerated Masters Degree Program in Apparel Product Development and Merchandising Technology includes meeting the following criteria:

1. The completion of fifteen (15) credit hours in Apparel Merchandising and Design.
2. An overall GPA of 3.5 or a 3.5 GPA in the last 60 hours of coursework.
3. Within 30 student credit hours of graduation.
4. Completion of all university competency requirements.
5. A signed Apparel Merchandising and Design major on a B.S., B.A., or B.A.A. degree.

Program of Study
Students in their first year on the Accelerated Masters Degree Program (who have not completed their undergraduate degrees) may not take over 15 total credit hours per semester. During their first year of enrollment, students may take:

- one 600-level course and one 500-level course per semester to be counted towards both degrees.

or

- two 500-level courses and no 600-level course per semester to be counted towards both degrees.

Application Process:
Undergraduate students seeking admission to the Accelerated Masters Degree Program must submit both the application for admission to the Accelerated Master’s Degree Program (found online at http://www.grad.cmich.edu/forms.htm) and the application for admission to the College of Graduate Studies no later than one year prior to graduation from their undergraduate program. This application should be accompanied by the student’s transcripts and the applicant must also present a 2-4 page, typed, double-spaced essay that (Part I) describes how previous experiences and training have prepared and led the applicant to pursue a Master of Science degree in Apparel Product Development and Merchandising Technology (APDMT) and (Part II) identifies likely professional goals and how graduate training can help accomplish these goals. This essay replaces the written statement requested as part of the application to the College of Graduate Studies. Three (3) letters of recommendation are also required, including two letters from faculty members. The third letter may be from another faculty member or from a professional who can address the student’s capacity to succeed as a graduate student.

Retention Standards

 Upon admittance into the Accelerated Masters Degree Program (AMDP), students have the responsibility of continuing the completion of all course requirements for the university program and for their majors and minors on their bachelor’s degree. Upon matriculation into the AMDP, an overall GPA of at least 3.0 is required throughout the graduate curriculum.

Sample Dual-Degree Curriculum

Year Four (Fall)
- One 500-level or one 600-level required on the APDMT program* (3)
- AMD 550* (3)
- 9 hours of undergraduate credits not counted on the APDMT (9)

Year Four (Spring)
- Two 500-level required courses required on the APDMT program (6) or one 500-level required on the APDMT program and one 600-level required on the APDMT program* (6)
- 9 hours of undergraduate credits not counted on the APDMT (9)

Year Five (Fall)
- One Graduate Elective (3)
- One 600-level required on the APDMT program (3)
- Graduate course in Research Methods (3)

Year Five (Spring)
- Graduate Course in Research Statistics (3)
- One Graduate Elective (3)

Year Five (Summer)
- HEV 798 Thesis or AMD 635 Advanced Internship (6)
*Courses that may be counted on the undergraduate and graduate degrees.

Master of Science (M.S.) in Human Development and Family Studies

Minimum Totals for Graduation: 36 hours

This program is designed to provide new and experienced professionals with a greater understanding of human development and family studies. The major objective of the program is to expand students’ knowledge of the processes of individual and family development, improve techniques and strategies for enhancing family functioning, and thereby improve the quality of life for humans at all stages of the life cycle.

Basic to the philosophy of this program is the assumption that individual development is best understood within the context of the family and its surrounding environments. The interface between the family and other contexts presents many challenges to family members. One example of a current challenge is the stress associated with political exigencies of welfare reform. Some families (continued)
need assistance in order to effectively cope with this challenge and to provide healthy environments for their children.

The course work in this program provides learning experiences that are both theoretical and applied. This program uses a culturally sensitive approach to individual and family development that is integrated into a systemic, family-focused approach to examining common life management issues.

Graduates of this program will have an educational background to work in human service areas that provide support and intervention for families that are struggling to cope with life's challenges. Some ways in which they may assist families are: selecting and managing child and elder care services, parenting education, promoting parental involvement in children's education, dealing with at-risk or conduct-disordered youth, decision-making concerning elderly family members, promoting conflict resolution, and providing family support and guidance in achieving greater economic self-sufficiency.

The faculty in this program are committed to facilitating access to higher education. For example, courses may be offered in the evenings and on Saturdays in order to accommodate those who have week-day work and family obligations. Some course information and materials may be offered on the internet.

An Accelerated M.S. in Human Development and Family Studies is available to advanced undergraduate students majoring in Child Development or Family Studies. See below for Admission Requirements, Retention and Termination Standards, and sample curriculum.

Note: This program does not meet requirements for licensing counselors or psychologists.

**Admission Requirements, Retention and Termination Standards**

Students seeking admission to the master program in Human Development and Family Studies must present the following for the March 15 deadline:

1. Fifteen (15) credit hours in Human Development and Family Studies or in a related area of competency.
2. An undergraduate grade point average of at least 3.0 in the last 60 semester hours of course work.
3. A 2-4 page, typed, double-spaced essay is required that:

   - Describes how your previous professional and volunteer experiences and training have prepared and led you to pursue a degree in Human Development and Family Studies,
   - Identifies likely professional goals and,
   - Describes how HDFS graduate training will help you accomplish these goals.

   This essay replaces the written statement requested as part of the application to the College of Graduate Studies and is weighted heavily in the application review process.

4. Three (3) letters of recommendation are required, including two letters from faculty. If it is not possible to obtain references from two faculty, references should be from professionals who can address your capacity to succeed as a graduate student.

5. Evidence of successful completion (a grade of C or better) of an undergraduate statistics or research methods course is strongly recommended.

6. General Graduate Record Examination (GRE) scores are optional. Applicants who do not meet the minimum GPA requirement for admission may substitute GRE test results. The GRE scores will be used as a supplementary screening device to determine potential for graduate school success.

7. Current resume.

Per university policy, conditional admission may be considered for applicants with background or grade point deficiencies. Courses taken to make up admission deficiencies cannot be counted toward graduate degree requirements. Regular admission status should be requested upon completion of all deficiencies.

**Degree Requirements**

**Required Courses (21 hours)**

- HDF 600 - Human Development and Family Studies Foundations (3-0)
- HDF 609 - Human Development Theory and Current Issues (3-0)
- HDF 615 - Theoretical Approaches to Family Processes (3-0)
- HDF 786 - Occupational Field Experience (3Spec)

**Plus:**

- One graduate course (3 credits) in Research Methods
- One graduate course (3 credits) in Statistics

**Additional Requirement (6 hours)**

Select one of the following plans:

- **Plan A: Thesis**
  - HEV 798 - Thesis 1-6(Spec)
  - plus an oral examination on materials on the thesis topic.

  **Note:** HEV 798 is a variable credit course. Students in this program of study are required to take 6 hours.

- **Plan B: Non-thesis**
  - Electives (6 credit hours) to be selected in consultation with advisor. A written and an oral examination on material in the field of specialization, and two major papers acceptable to the student's Graduate Program Committee.

**Electives (9 hours)**

- Electives to be chosen in consultation with an advisor.

**Total: 36 semester hours**

**ACCELERATED MASTER OF SCIENCE IN HUMAN DEVELOPMENT AND FAMILY STUDIES**

**Admission Requirements, Retention and Termination Standards**

**Admission Requirements**

1. The completion of fifteen (15) credit hours on either the Child Development or Family Studies Major, including completion of the following 15 hours of specified coursework:
   - HDF 100 - Human Growth and Development: Lifespan (3-0)
   - HDF 307 - Human Growth and Development: Parent-Child Relations (3-0)
   - HDF 219 - HDFS Fieldwork (3-0)
   - and six hours of additional course requirements on the student's major or on the Gerontology Minor.

2. An overall GPA of 3.5 or a 3.5 GPA in the last 45 hours of coursework.

3. Within 30 student credit hours of graduation.

4. Completion of all university competency requirements.

5. A signed Child Development or Family Studies Major on a B.S., B.A., or B.A.A. degree.
Program of Study

Students in their first year on the Accelerated Master’s Degree Program (who have not completed their undergraduate degree) may not take over 15 total credit hours per semester. During their first year of enrollment, students may take one 600-level course and one 500-level course per semester to be counted toward both degrees.

Required Graduate Courses that may not be counted on the Undergraduate Degree:

- HDF 786 - Occupational Field Experience 3(3-0);
- One graduate course (3 credits) in research methods;
- One graduate course (3 credits) in statistics;
- HEV 798 - Plan A: Thesis or Plan B: Non-Thesis

All required graduate courses can be counted on both degree programs.

Application Process

Undergraduate students seeking admission to the Accelerated Master’s Degree Program must submit the application for admission to the College of Graduate Studies no later than one year prior to graduation from their undergraduate program. This application should be accompanied by the student’s transcripts and the applicant must also present a 2-4 page, typed, double-spaced essay that (Part I) describes how previous experiences and training have prepared and led the applicant to pursue a master’s degree in Human Development and Family Studies (HDFS) and (Part II) identifies likely professional goals and how HDFS graduate training can help accomplish these goals. This essay replaces the written statement requested as part of the application to the College of Graduate Studies. Three letters of recommendation are also required, including two letters from faculty members. The third letter may be from another faculty member or from a professional who can address the student’s capacity to succeed as a graduate student.

Retention Standards

Upon admittance into the Accelerated Master's Degree Program (AMDP), students have the responsibility of continuing the completion of all requirements for the University Program and for their majors and minors on their bachelor's degree. Upon matriculation into the AMFD, an overall GPA of at least 3.0 is required throughout the graduate curriculum.

Sample Curriculum for the Accelerated M.S. in HDFS:

**Year Four - Fall**
- HDF 600* (3 hours)
- One 500-level graduate elective* (3 hours)
- Undergraduate credits not counted on the AMDP (9 hours)

**Year Four - Spring**
- One 500-level graduate elective* (3 hours)
- One of the following required courses*: HDF 603, HDF 609, or HDF 615 (3 hours)
- Undergraduate credits not counted on the AMDP (9 hours)

**Year Five - Fall**
- Graduate Requirements:
  - Two of the following courses: HDF 603, HDF 609 or HDF 615 (6 hours)
  - Graduate course in research methods (3 hours)

**Year Five - Spring**
- Graduate course in research statistics (3 hours)
- HDF 786 - Occupational Field Experience (3 hours)
- One Graduate Elective (3 credits)

**Year Five - Summer**
- Either HEV 798 Thesis or Plan B (6 hours)

*Courses that may be counted on the undergraduate and graduate degrees.

Master of Science (M.S.) in Nutrition and Dietetics

Minimum Totals for Graduation: 31 - 37 hours

The M.S. in Nutrition and Dietetics is designed to provide advanced training in human nutritional sciences for new and experienced professionals. Its objectives are to enhance the graduate's knowledge base and expertise in the continually advancing field of nutrition and clinical dietetics and to provide graduates with the quantitative and methodological knowledge necessary to better interpret the scientific literature to conduct their own nutritional research.

The M.S. in Nutrition and Dietetics Program course work can be completed entirely through distance and distributed learning. The program utilizes web-based technology to provide course content.

This degree program has three options:
- Option I - Plan A Thesis Option;
- Option II - Plan B Internship Option;
- Option III - Plan B Course Work Option.

Admission Requirements, Retention & Termination Standards

1. An undergraduate grade point average of at least 3.0 (on a 4-point scale) in the last 60 semester hours of course work.
2. Successful completion of the requirements for dietetic registration by the American Dietetic Association or fulfillment of the minimum academic requirements of the Didactic Program in Dietetics approved by the American Dietetic Association's Commission on Accreditation/Approval for Dietetics Education or successful completion of at least: two courses in nutrition, one being at the advanced level; and one course in each of the following: biochemistry; physiology; microbiology; and organic chemistry.
3. An essay (2-3 pages, double-spaced) including a discussion of the applicant's goals and how completion of the program will facilitate his or her achievement of those goals. A portion of this essay should focus upon the unique qualifications the student will bring to the degree program. In addition, the essay must include the student’s choice of options (I, II, or III, see program course listing). Also the student will provide a generalized description of the subject matter of the thesis (Plan A) if Option I is chosen or for Options II or III a description of the significant scholarship (e.g. project, extensive paper) the student intends to perform to meet the requirements for Plan B. This essay replaces the written statement requested as part of the application to the College of Graduate Studies.
4. Three (3) letters of recommendation from former professors or professionals in the field of nutrition and dietetics or other health-related professional.
5. Evidence of successful completion of an undergraduate statistics course is strongly recommended.
6. Up to 15 semester hours of graduate credit may be transferred in from another institution with approval of advisor.

Options

Select one of the following plans:

**Option I - Plan A: Thesis Option (31 hours)**
- FNS 681 - Macronutrients 3(3-0)
- FNS 682 - Micronutrients 3(3-0)
- FNS 670 - Seminar: Nutrition 1-3(Spec)
- FNS 672 - Advanced Clinical Nutrition 3(3-0)
- FNS 673 - Seminar: Nutritional Assessment 3(3-0)
- FNS 677 - Nutritional Epidemiology 3(3-0)
- FNS 678 - Research Methods in Nutrition 3(3-0)
- HEV 798 - Thesis 1-6(Spec)

(continued)
Plus an oral exam on the thesis topic and 6 additional hours of electives selected with the approval of the student’s academic advisor.

**Note:** FNS 670 and HEV 798 are variable credit courses. Students in this program are required to take 1 credit hour of 670 and 6 credit hours of 798.

**Option II - Plan B: Course Work Option (33 hours)**

- FNS 661 - Macronutrients 3(3-0)
- FNS 662 - Micronutrients 3(3-0)
- FNS 670 - Seminar: Nutrition 1-3(Spec)
- FNS 672 - Advanced Clinical Nutrition 3(3-0)
- FNS 673 - Seminar: Nutritional Assessment 3(3-0)
- FNS 677 - Nutritional Epidemiology 3(3-0)
- FNS 678 - Research Methods in Nutrition 3(3-0)
- HEV 790 - Independent Study 2-6(Spec)

Plus oral examination over course work and 9 additional hours of electives selected with the approval of the student’s academic advisor.

**Note:** FNS 670 and HEV 790 are variable credit courses. Students in this program MUST enroll in FNS 670 three times (1 hour each) under different subject themes. For HEV 790, students are required to take 3 credit hours.

**Option III - Plan B: Internship Option (37 hours)**

- FNS 661 - Macronutrients 3(3-0)
- FNS 662 - Micronutrients 3(3-0)
- FNS 670 - Seminar: Nutrition 1-3(Spec)
- FNS 672 - Advanced Clinical Nutrition 3(3-0)
- FNS 673 - Seminar: Nutritional Assessment 3(3-0)
- FNS 674 - Dietetic Internship: Clinical Experience 5(Spec)
- FNS 675 - Dietetic Internship: Foodservice Administration Experience 6(Spec)
- FNS 676 - Dietetic Internship: Summary Experience 2(Spec)
- FNS 677 - Nutritional Epidemiology 3(3-0)
- FNS 678 - Research Methods in Nutrition 3(3-0)
- HEV 790 - Independent Study 2-6(Spec)

Plus oral examination over course work and 3 additional hours of electives selected with the approval of the student’s academic advisor.

**Note:** FNS 670 and HEV 790 are variable credit courses. Students in this program are required to take 1 credit hour of FNS 670 and 3 credit hours of HEV 790.

In some cases, twelve credits may be earned through examination to substitute for the dietetic internship experience. Students must be eligible and must pass the examination to earn the twelve credits.

Contact the Department of Human Environmental Studies for the policy on Credit by Examination for Dietetic Internship Experience.

**Total: 31-37 semester hours**

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**Gerontology Certificate**

**Minimum Totals for Graduation: 18 hours**

Gerontology is the holistic study of aging. The 18-credit graduate certificate is designed to provide a basic foundation in theory, research, and practice specific to late life. The program includes two required courses. The remainder of the credits is elected from three groupings of courses: Psychological; Physical Health and Administrative; and Family, Culture and Society. The courses are offered by an array of departments throughout the campus, reflecting the interdisciplinary nature of gerontology.

The certificate is designed to complement students’ major course of study. It addresses career trajectories in which students graduate without expertise in aging and subsequently enter professions serving clienteles that include significant numbers of older adults. The certificate serves the need for aging education that emerges.

Students seeking the certificate must hold a completed baccalaureate degree or have acceptance into a graduate degree program at CMU. Although the program can be completed in three semesters, a student-paced approach to the certificate is equally suitable. The advisor for the certificate is located in the Department of Human Environmental Studies.

**Core Courses (6 hours)**

- GRN 631 - Gerontology: Theory and Practice 3(3-0)
- GRN 632 - Public Policy and Aging 3(3-0)

**Required Courses I - Psychological Group (3 hours)**

Select from the following:

- GRN 535 - Dementia Care: Diagnosis, Treatment and Prevention 3(3-0)
- PSY 724 - Psychology of Aging 3(3-0)

**Required Courses II - Physical Health and Administration Group (3 hours)**

Select from the following:

- CDO 638 - Seminar: Adult and Pediatric Swallowing and Feeding Disorders 3(3-0)
- FNS 575/GRN 575 - Geriatric Nutrition 3(3-0)
- FNS 671 - Advanced Topics in Nutrition: Geriatrics 3(3-0)
- HSC 506 - Health and Physical Development in Late Life 3(3-0)
- HSC 517 - Drugs and the Elderly 2(2-0)
- HSC 591 - Legal & Regulatory Aspects of Long-Term Care 3(3-0)
- HSC 592 - Administration Issues in Long-Term Care 3(3-0)
- HSC 593 - Resident Care Issues in Long-Term Care Administration 3(3-0)
- HSC 620 - Adult Health Education Theory and Practice 3(3-0)

**Required Courses III - Family, Culture and Society Group (3 hours)**

Select from the following:

- CED 685 - Counseling Aspects of Grief and Loss 3(3-0)
- GRN 597 - Special Topics 1-4(Spec)
- HDF 618 - The Family Life Cycle: The Older Adult 3(3-0)

**Required Courses IV (3 hours)**

Select from any one of the three groups above.

**Total: 18 semester hours**
Course Descriptions: AMD

AMD 546 Experimental CAD for Apparel 3(2-2)
Creative use of industry-specific CAD system as applied to standards prevalent in the manufacture of apparel. Emphasis on advanced portfolio development and presentation boards. Prerequisites: AMD 346 with grade of C or better

AMD 547 Functional Apparel Design 3(2-2)
A systematic approach to apparel design integrating knowledge of the needs and functions of the wearer, the structural properties of textiles and apparel design. Prerequisites: AMD 241, AMD 345, AMD 355.

AMD 550 Textiles and Apparel in a Global Economy 3(3-0)
Examination of issues related to the globalization of the textile/apparel industry, theories of international development and expansion, and the distribution of fashion goods. Prerequisites: 56 semester hours with at least 12 hours in apparel merchandising and design courses including AMD 401.

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

AMD 597 Special Topics in Apparel Merchandising & Design 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript.

AMD 604 Scholarship in Textiles and Clothing 3(3-0)
Overview of research in textiles and clothing with emphasis on current future directions of the field. Prerequisite: Enrollment in the Apparel Product Development and Merchandising Technology graduate program.

AMD 635 Advanced Internship in Textiles & Apparel 6(Spec)
A structured internship experience that fosters the application of advanced technology and creative skills in a textile/apparel professional setting. Prerequisites: 12 hours of graduate coursework in Apparel Product Development and Merchandising Technology.

AMD 640 Anthropometrics and Apparel 3(2-2)
Examination of human factors and their relationship to designed products. Quantification of body sizes and human variation using body scanning technology. Prerequisite: Admission to the Apparel Product Development and Merchandising Technology graduate program.

AMD 641 Apparel Presentation Technology 3(2-2)
Software applications specific to apparel presentation in retail and virtual environments. Emphasis on creation of planograms for product display. Prerequisite: AMD 246. Admission to the Apparel Product Development and Merchandising Technology graduate program.

AMD 655 Textile Product Evaluation 3(2-2)
Appropriate selection, use, and adaptation of standardized tests for textile product evaluation, familiarity with technological advances; and exploration of innovative use of textiles. Prerequisites: Admission to the Apparel Product Development and Merchandising Technology graduate program.

AMD 656 Apparel Retail Technology 3(3-0)
In-depth study of the principal apparel retail technologies and systems currently being developed and used for internal retail management and for global supply chain management. This course is approved for offering in a distance learning format. Prerequisites: Admission to the Apparel Product Development and Merchandising Technology graduate program.

AMD 697 Special Topics in Apparel Merchandising & Design 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript.

AMD 790 Independent Study in Apparel Merchandising & Design 2-6(Spec)
Student-initiated study in an area not covered in regular courses guided by faculty or faculty committee. Prerequisites: Permission of instructor.

AMD 797 Special Topics in Apparel Merchandising & Design 1-6(Spec)
Individual research or creative endeavor culminating in a written thesis and/or exhibition of work. CR/NC only. Prerequisites: Permission of instructor.

Course Descriptions: FNS

FNS 570 Nutritional Education 4(4-0)
Teaching strategies, advising techniques, resources, and motivational techniques as specifically applied to patients/clients in nutrition programs and patient/clients receiving nutrition services. Pre/Co-Requisite: FNS 471.

FNS 573 Field Work: Community Nutrition 3(Spec)
Consulting, teaching and supportive research experiences in the field with a nutritionally vulnerable group. Prerequisites: FNS 370 and FNS 570.

FNS 575 Geriatric Nutrition 3(3-0)
A detailed description of nutrition for the elderly, including special nutritional considerations, food selection patterns, nutritional status and strategies for disease prevention. Identical to GRN 575. Credit may not be earned in more than one of these courses. Recommended: FNS 370.

FNS 577 Advanced Topics in Nutrition: Eating Disorders 3(3-0)
Analysis of factors involved in etiology, assessment, medical consequences, treatment and prevention of eating disorders. Recommended: FNS 370. This course is approved for offering in a distance learning format.

FNS 597 Special Topics in Foods and Nutrition 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. This course is approved for offering in a distance learning format.

FNS 661 Macronutrients 3(3-0)
Advanced study of nutrition, metabolism, and function of proteins, carbohydrates and lipids as related to human health and disease. Prerequisites: Permission of instructor. Recommended: BIO 392, CHM 421, FNS 473.

FNS 662 Micronutrients 3(3-0)
Advanced study of the nutrition, metabolism, and function of vitamins and minerals as related to human health and disease. Prerequisites: Admission to Graduate Program in Dietetics. This course is approved for offering in a distance learning format.
FNS 670 Seminar: Nutrition 1-3(Spec)
Student review and presentation of specific topics of current research in nutrition. Prerequisites: FNS 370, FNS 472, FNS 573. This course is approved for offering in a distance learning format.

FNS 671 Advanced Topics in Nutrition: Geriatrics 3(3-0)
Presents key concepts in geriatric nutrition. Provides students with skills needed to evaluate and utilize information regarding nutrition in health and disease among the elderly. Prerequisites: admission to a health-related post-baccalaureate program.

FNS 672 Advanced Clinical Nutrition 3(3-0)
Advanced concepts of diet therapy and care for a variety of clinical disorders with nutritional implications. Includes coverage of enteral and parenteral nutrition. Prerequisite: Graduate student status. Recommended: BIO 392, CHM 421, FNS 473.

FNS 673 Seminar: Nutritional Assessment 3(3-0)
Presents techniques for nutritional assessment of individuals and groups: evaluation of dietary intake, anthropometry, nutritional analysis software, and biochemical, and clinical indices. Prerequisites: BIO 392, CHM 421, FNS 473. This course is approved for offering in a distance learning format.

FNS 674 Dietetic Internship: Clinical Experience 5(Spec)
Application of dietary principles to human pathophysiologic status through documenting and counseling individuals, assessing, educating groups, and planning in an acute care environment. Prerequisites: registration is restricted to students accepted into the Central Michigan University Dietetic Internship and the College of Graduate Studies. In some cases, 12 credits may be earned through examination to substitute for the dietetic internship experience.

FNS 675 Dietetic Internship: Foodservice Administration Experience 5(Spec)
Application of administrative principles (budget decisions, cost containment, personnel management, leadership) involved in the production, distribution, and service of food in hospitals and schools. Prerequisites: Registration is restricted to students accepted into the Central Michigan University Dietetic Internship and the College of Graduate Studies. In some cases, 12 credits may be earned through examination to substitute for the dietetic internship experience.

FNS 676 Dietetic Internship: Summary Experience 2(Spec)
Integration and application of clinical, foodservice, and community nutrition principles and their implementation in acute care settings. Prerequisites: FNS 674 and FNS 675; registration is restricted to students accepted into the Central Michigan University Dietetic Internship and the College of Graduate Studies. In some cases, 12 credits may be earned through examination to substitute for the dietetic internship experience.

FNS 677 Nutritional Epidemiology 3(3-0)
Presents key concepts of nutritional epidemiology. Enables students to evaluate clinical research investigating the role of nutrition in disease causation and health promotion. Recommended: FNS 673. This course is approved for offering in a distance learning format.

FNS 678 Research Methods in Nutrition 3(3-0)
Students will review research methods, read and analyze related literature and develop a proposal for practice-oriented nutrition research. Prerequisites: Admission to the Master of Science in Nutrition and Dietetics, or for other related programs, permission of instructor. This course is approved for offering in a distance learning format.

FNS 679 Advanced Topics in Nutrition: Obesity 3(3-0)
Current theories and analysis of factors contributing to overweight and obesity throughout the lifespan; intervention and weight management options presented. Prerequisites: Permission of instructor. Recommended: An advanced course in nutrition and a course in clinical dietetics at the undergraduate level.

FNS 697 Special Topics in Dietetics 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. This course is approved for offering in a distance learning format.

FNS 700 Independent Study in Dietetics 2-6(Spec)
Student-initiated study in an area not covered in regular courses guided by faculty or faculty committee. Prerequisites: Permission of instructor.

FNS 797 Special Topics in Nutrition 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student’s transcript. This course is approved for offering in a distance learning format.

FNS 798 Thesis in Dietetics 1-6(Spec)
Individual research or creative endeavor culminating in a written thesis and/or exhibition of work. CR/NC only. Prerequisites: Permission of instructor.

Course Descriptions: GRN
GRN 535 Dementia Care: Diagnosis, Treatment and Prevention 3(3-0)
This course provides a foundation in normal aging and then addresses the individual, family and institutional challenges of diagnosis, treatment and prevention of dementing illnesses. Prerequisites: GRN 247 or PSY 325 or HPR 390.

GRN 575 Geriatric Nutrition 3(3-0)
A detailed description of nutrition for the elderly, including special nutritional considerations, food selection patterns, nutritional status and strategies for disease prevention. Identical to FNS 575. Credit may not be earned in more than one of these courses. Prerequisites: FNS 370.

GRN 590 Independent Study 1-4(Spec)
Student-initiated study (reading, research, and/or project development) on a topic not normally covered in existing courses. Prerequisite: permission of instructor.

GRN 597 Special Topics 1-4(Spec)
Selected topics/problems of interest that are not normally included in existing courses. May include conferences, workshops, and seminars sponsored by the Interdisciplinary Gerontology Program. Prerequisite: permission of instructor.

GRN 631 Gerontology: Theory and Practice 3(3-0)

GRN 632 Public Policy and Aging 3(3-0)
Course addresses the development of social policy in the context of population aging. Emphasizes analysis of current and long-term implications on policy decisions. Prerequisite: graduate status.
Course Descriptions: HDF

HDF 506 Human Growth and Development: Practicum in Parent Involvement 3(2-2)
Analysis of goals, trends, methods and models of parent involvement with opportunities to plan programs for parents, and to work with parents in professional settings. Prerequisites: HDF 307; one of: HDF 302, HDF 303, HDF 306.

HDF 508 Human Growth & Development: Preschool Administration 3(3-0)
The functional role of the preschool program director, legal and administrative controls. Prerequisite: HDF 303.

HDF 510 Human Growth and Development: Seminar 3(3-0)
Course examines the perspectives of human development; life span research; the domains of learning/development and the philosophy and history of human development. Prerequisites: any two 300 level Human Growth and Development courses; or Human Development and Family Studies graduate status.

HDF 511 Seminar in Human Sexuality 3(3-0)
Survey of professional literature pertaining to human sexuality. Prerequisites: HDF 213 or HSC 222.

HDF 512 Seminar: Family Relations 3(3-0)
Study of interpersonal relationships in several selected cultures. Prerequisites: HDF 211 or HDF 411 or SOC 411.

HDF 513 Readings in the Family 3(3-0)
Survey of professional literature related to the family. Prerequisites: HDF 211 or HDF 411 or SOC 411.

HDF 516 Family Development: Early Adulthood/Middle Age 3(3-0)
A study of the tasks and transitions of the periods of the family life cycle from early adulthood through middle age. Prerequisites: HDF 100 or PSY 220; HDF 211 or HDF 411 or SOC 411.

HDF 517 Readings in Marital Counseling and Divorce 3(3-0)
Analysis of changing philosophical conceptualizations of marriage and family, as reflected by emerging issues in marriage counseling and divorce. Prerequisites: HDF 211.

HDF 597 Special Topics in Human Development & Family Studies 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student's transcript.

HDF 600 Human Development and Family Studies Foundations 3(3-0)
Foundation concepts and principles involved in theory, research, and practice with individuals and families across the lifespan.

HDF 601 Human Growth and Development: 0-8 Years 3(3-0)
Growth and development of normal children ages 0-8 years. Major developmental processes and their educational and social implications will be emphasized.

HDF 603 Human Diversity Within and Between Families 3(3-0)
Diverse backgrounds of families/individuals based on ethnicity, religion, sexual orientation, class, and disabilities will be studied. Models to explore the diverse nature will be applied. Identical to SOC 611. Credit may not be earned in more than one of these courses.

HDF 606 Human Growth and Development: Issues in Adolescent Development 3(3-0)
Research and theory relating to the adolescent as a member of family and society. Prerequisite: HEV 406.

HDF 609 Human Development Theory and Current Issues 3(3-0)
Introduction to key theories of human development. Current issues in life-span development relevant for understanding the application of these theories will be explored. Prerequisites: HDF 600.

HDF 615 Theoretical Approaches to Family Processes 3(3-0)
This course focuses on the theories and conceptual framework for studying contemporary issues in family interactions over the life span. Prerequisites: HDF 600.

HDF 618 The Family Life Cycle: The Older Adult 3(3-0)
Study of the older adult in terms of the nutritional, social, consumer and familial aspects of development.

HDF 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

HDF 697 Special Topics in Human Development & Family Studies 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student's transcript.

HDF 768 Occupational Field Experience 3(Spec)
Internship in one human development and family related occupation with supervision by individual faculty. CR/NC only. Prerequisite: HDF 600, 9 hours of graduate level course credit and permission of instructor.

HDF 797 Special Topics in Human Development & Family Studies 1-15(Spec)
Topics of special interest which are not normally included in existing courses. Specific topic will be listed on student's transcript.

HDF 798 Thesis in Human Development & Family Studies 1-6(Spec)
Individual research or creative endeavor culminating in a written thesis and/or exhibition of work. CR/NC only. Prerequisites: Permission of instructor.

Course Descriptions: HEV

HEV 597 Special Topics 1-15(Spec)
Consideration of subject matter not included in courses currently listed in Bulletin. Prerequisites: See class schedule.

HEV 697 Special Studies: Human Environmental Studies 1-15(Spec)
Consideration of subject matter not included in courses currently listed in the Bulletin. Prerequisite: permission of instructor.

HEV 790 Independent Study 2-6(Spec)
Student-initiated study in an area not covered in regular courses guided by faculty or faculty committee. Prerequisites: Admission to College of Graduate Studies and permission of instructor.

HEV 797 Special Studies: Human Environmental Studies 1-15(Spec)
Consideration of subject matter not included in courses currently listed in the Bulletin. This course is approved for offering in a distance learning format. Prerequisite: permission of instructor.

HEV 798 Thesis 1-6(Spec)
Individual research or creative endeavor culminating in a written thesis and/or exhibition of work. CR/NC only
Department of Journalism (JRN)

College of Communication and Fine Arts

Maria Marron, Chairperson
454 Moore Hall, (989) 774-3196

Sean Baker, Ph.D., Visual/Digital Communication
Tim Boudreau, Ph.D., Press and Society, Research
Lori F. Brost, Ph.D., Press and Society, New Media, Electronic Media, Pop Culture
Elina Erzikova, Ph.D., Public Relations
John K. Hartman, Ph.D., Press and Society, Research, Advertising, Public Relations
Tim Boudreau, Ph.D., Press and Society, Research, Public Relations
David London, Ph.D., Persuasive Communication, Advertising
Maria Marron, Ph.D., Press and Society, Research
Kenneth McDonald, B.A., Graphic Design, Visual Communication
Kent Miller, M.A., Photojournalism
Alice A. Tait, Ph.D., Advertising, AHANA (African American, Hispanics, Asians, Native Americans)/Women and Mass Media, Mass Communication Theory and Research, Interpersonal and Public Communication
James Wojcik, M.A., Public Relations
Jiafei Yin, Ph.D., News Editorial, Media History and International Communications

Graduate-level courses offered by the Department of Journalism may be appropriate as electives on various graduate degree curricula.

Course Descriptions: JRN

JRN 500 Current Issues in Mass Communication 3(3-0)
Examination of the role of mass communication in society through the exploration of issues, ethics, trends and decision-making processes. Prerequisite: senior standing.

JRN 516 Public Affairs Reporting 3(3-0)
Coverage of government and other public issues. Prerequisite: JRN 312.

JRN 519 News Editorial Internship 1-4(Spec)
Experience at news organizations under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

JRN 520 Independent Study in Photography 3(3-0)
Advanced experience and individual instruction in photography. Prerequisites: JRN 220, JRN 320.

JRN 521 Seminar in News Photography 3(3-0)
Field experience of the photograph as a means of communicating information, ideas and opinions.

JRN 529 Photojournalism Internship 1-4(Spec)
Photojournalism experience under professional and faculty supervision. May be applied to journalism major or minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

JRN 551 Case Studies in Public Relations 3(3-0)
Examination of historic and contemporary public relations problems and programs with emphasis on research, planning and problem-solving skills in public relations practices. Prerequisites: JRN 350.

JRN 556 Public Relations Seminar 3(3-0)
Emphasis on interaction of public relations with society, with individual case studies. Prerequisites: JRN 350.

JRN 559 - Public Relations Internship 1-4(Spec)
Experience in public relations under professional and faculty supervision. May be applied toward journalism major and minor only with permission of faculty advisor. Prerequisites: junior standing; permission of instructor.

JRN 569 Advertising Internship 1-4(Spec)
Experience in advertising under professional and faculty supervision. May be applied toward journalism major or minor only with permission of faculty advisor. Prerequisites: junior standing and permission of instructor.

JRN 597 Special Studies 1-6(Spec)
Appropriate title to be listed when offered.

JRN 670 Public Relations Management 3(3-0)
Organization and management of the public relations function in business, industry, various institutions and public relations firms: counseling, planning, budgeting, personnel management. This course is approved for offering in a distance learning format.
Department of Management (MGT)

College of Business Administration

Kevin Love, Chairperson
200 Smith Hall, (989) 774-3450

Mahmood S. Bahaee, D.B.A., Management and Business Policy

J. K. Bandyopadhyay, Ph.D., Production/Operations Management

Ronald P. Beaulieu, D.B.A., Organizational Behavior and Human Resource Management

Lawrence O. Jenicke, Ph.D., Management Science, Production/Operations Management

Hyungu Kang, Ph.D., Management Policy and Strategy

Robert J. Lichtman, Ph.D., Organizational Behavior and Human Resource Management

Kevin G. Love, Ph.D., Human Resource Management

Van Miller, Ph.D., International Business

Shanthakumar Palaniswami, Ph.D., Management Science, Production/Operations Management

Luis Perez, Ph.D., Business Policy and Strategy

Michael J. Pisani, Ph.D., International Business

Syed Shahabuddin, Ph.D., Production/Operations Management, and Management Science

Herman A. Theeke, Ph.D., Human Resource Management

Course Descriptions: MGT

MGT 500 Comparative Labor Relations Systems 3(3-0)
Comparative analysis of the history, structure, institutional arrangements, and philosophy of the labor relations systems of several countries in advanced stages of industrialization. Prerequisites: MGT 320; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 516 Management and Women 3(3-0)
Enables both male and female students to understand the opportunities, challenges, and problems confronting women in their pursuit of careers in management, and to manage more effectively. Prerequisites: MGT 312; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 520 Management in Health Care Facilities 3(3-0)
Management problems and practices in health care facilities. Prerequisites: MGT 312; MSA 650; 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 533 Purchasing Strategy 3(3-0)
Strategic analysis and planning of purchasing and supplier-base development for both domestic and global competitive environments. Prerequisites: MGT 333 and admission to Professional Business Studies or listed on signed major or minor or permission of the MBA Director.

MGT 542 Inventory and Materials Management 3(3-0)
The study of the concepts, models and systems for material management and production planning. Prerequisites: MGT 303/MKT 303 or MGT 340; STA 282; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or graduate standing.

MGT 543 Management and Control of Quality 3(3-0)
In-depth study of management and statistical techniques employed in the analysis, design and implementation of quality assurance and control systems in manufacturing and service organizations. Prerequisites: MGT 303/MKT 303 or MGT 340; STA 282 or STA 382; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor or graduate standing.

MGT 545 Operations Strategy 3(3-0)
The treatment of strategic planning and competitive issues in operations management in a domestic and global environment. Prerequisites: MGT 303/MKT 303 or MGT 340; 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 597 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcripts. Prerequisites: 56 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

MGT 600 Principles of Management Science/Management Information Systems 3(3-0)
Quantitative techniques in production and operations management and resource planning. Basic concepts of management information systems and decision support systems. Prerequisites: admission to MBA or permission of MBA director and STA 282.

MGT 633 Human Resource Management 2(2-0)
The theory and problems of human resource management as they relate to the various levels of management. Credit cannot be earned in both MGT 633 and MGT 643. Prerequisites: admission to MBA or permission of MBA director.

MGT 635 Employee Compensation Practice and Process 2(2-0)
Procedures and methods for exploring employee compensation programs. Credit cannot be earned in both MGT 635 and MGT 645. Prerequisites: MGT 633, statistics, and admission to MBA or permission of MBA director.

MGT 636 Seminar in Labor Relations 2(2-0)
Theoretical and applied analysis of major issues in labor relations. Public sector, private sector, and international issues are considered. Credit cannot be earned in both MGT 636 and MGT 646. Prerequisites: MGT 320, and admission to MBA or permission of MBA director.

MGT 637 Personnel Selection and Evaluation 2(2-0)
Analysis of the functions of employee selection and performance management in organizational settings, with emphasis on quantitative and qualitative techniques, and in the context of workplace diversity. Credit cannot be earned in both MGT 637 and MGT 647. Prerequisites: STA 282, and MGT 320 or MGT 633, and admission to MBA or permission of MBA director.
MGT 643 Personnel Management 3(3-0)
The theory and problems of personnel administration as they relate to the various levels of management. Credit cannot be earned in both MGT 633 and 643. Prerequisite: admission to graduate program.

MGT 645 Personnel Compensation Practice and Process 3(3-0)
Procedures and methods for developing and delivering employee compensation programs. Credit cannot be earned in both MGT 635 and MGT 645. Prerequisites: MGT 643, statistics, and admission to graduate program.

MGT 646 Labor Relations Issues 3(3-0)
Exploration of the public sector, private sector, and international issues in labor relations. Credit cannot be earned in both MGT 636 and MGT 646. Prerequisite: MGT 320, admission to graduate program.

MGT 647 Employee Selection and Evaluation 3(3-0)
In-depth analysis of the functions of employee selection and performance appraisal in organizational settings, with emphasis on quantitative techniques. Credit cannot be earned in both MGT 647 and MGT 637. Prerequisites: STA 282, and MGT 320 or MGT 633 or MGT 643, and admission to graduate program.

MGT 649 Seminar in Organizational Development 3(3-0)
The intervention theory and method in organizational development. Prerequisite: admission to MBA or permission of MBA director.

MGT 657 International Management 2(2-0)
From a contemporary perspective, the course deals with managing subsidiaries and affiliates in different country-and cultural-context. Credit cannot be earned in both MGT 657 and MGT 667. Prerequisites: admission to the MBA Program or permission of the MBA director.

MGT 667 International Business 3(3-0)
This course deals with operating subsidiaries and affiliates in different country-and cultural-contexts. Credit cannot be earned in both MGT 667 and MGT 657. Prerequisites: admission to graduate program.

MKT 555 Market and Sales Forecasting 3(3-0)
Develops familiarity with methods most commonly used in market and sales forecasting. Both qualitative and quantitative methods are included with emphasis on the latter. Prerequisites: one course in MKT; one course in statistics or MKT 450; admission to Professional Business Studies; 86 semester hours completed.

MKT 560 International Marketing 3(3-0)
Policies and practices employed in international business. Considers problems of international payments, trade and investment with special emphasis on integrating managerial dimensions with related economic principles. Prerequisites: MKT 300 or MKT 304; admission to Professional Business Studies; senior standing; 86 semester hours completed. This course is approved for offering in a distance learning format.

MKT 597 Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student’s transcripts. Prerequisites: MKT 300 or MKT 304; admission to Professional Business Studies; senior standing; 86 semester hours completed.

MKT 650 Marketing Research: Managerial Applications 2(2-0)
Survey of what managers need to know about marketing research. Includes questionnaire design, evaluation; sampling and sample size issues, and basic methods of data analysis. Prerequisites: MKT 300 and admission to the MBA program or graduate status and permission of the MBA director.

MKT 663 Product Management 2(2-0)
Development and introduction of new products and services in a dynamic environment. Prerequisites: regular admission to the MBA program or permission of the MBA Director.

MKT 664 Promotional Strategy 2(2-0)
Promotional strategy is designed to present the relevant concepts of the marketing communication process and their applications within a managerial framework. Prerequisite: regular admission to the MBA program or permission of the MBA director.
MKT 669  Seminar in Marketing Problems 2(2-0)
Current marketing literature and selected cases in retailing, advertising, packaging, and marketing research. Prerequisite: regular admission to the MBA program or permission of the MBA director.

MKT 791  Independent Studies 1-6(Spec)
Directed reading or research on an approved topic. Prerequisites: permission of instructor and department chairperson and 15 hours of graduate credit in M.B.A. program.

MKT 797  Special Topics 3-6(Spec)
Enables students to take various topics under the same number. Specific topic will be listed on the student's transcript. Prerequisites: graduate status and permission of instructor.

MKT 798  Thesis 1-6(Spec)
An acceptable thesis in business administration. The thesis is directed by a committee in conformity with the "Regulations and Directions for the Writing of the Master's Thesis." CR/NC only.

Course Descriptions: HSA

HSA 542  International Tourism 3(3-0)
This course focuses on the strategic management of international tourism in hospitality organizations, associations, and government agencies. Prerequisites: 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 543  Hospitality Industry Organizations and Operations 3(3-0)
This course examines the organizational structure and operational aspects of lodging and restaurant organizations. Prerequisites: 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 544  Current Research Issues in Hospitality and Tourism 3(3-0)
Examination and application of major research methodologies and discussion of research issues pertaining to the Hospitality/Tourism Industry. Prerequisites: 86 semester hours completed; admission to Professional Business Studies or listed on signed major or minor.

HSA 546  Management in the Hospitality Service Sector 3(3-0)
Management and personnel functions as they relate to the hospitality industry; skills necessary to manage hotels, clubs, resorts; role of food service in these operations. Prerequisites: HSA 350, 447; 86 semester hours completed; admission to Professional Business Studies, listed on signed major or minor.

HSA 547  Special Topics 1-6(Spec)
Selected problems of interest to students which are not normally included in existing courses. Specific topic will be listed on the student's transcript. Prerequisites: admission to Professional Business Studies and senior standing; 86 hours completed.

HSA 791  Independent Studies 1-6(Spec)
Directed reading or research on an approved topic. Prerequisites: permission of instructor and department chairperson and 15 hours of graduate credit in MBA program.

HSA 797  Special Topics 3-6(Spec)
Enables students to take various topics under the same number. Specific topic will be listed on the student's transcript. Prerequisites: graduate status and permission of instructor.

HSA 798  Thesis 1-6(Spec)
CR/NC only.
The Department of Mathematics offers the Master of Arts in Mathematics (M.A.) that also offers an Accelerated Program, the Master of Arts in Teaching (M.A.T.), and the Ph.D. in Mathematics with a concentration in the Teaching of College Mathematics.

The department has an active faculty with particular research strengths in the areas of algebra, algebraic geometry, applied mathematics, approximation theory, combinatorics and graph theory, differential geometry, functional analysis and operator theory, mathematics education, number theory, and statistics.

Classes are small, allowing students to receive individual attention. An active colloquium program draws speakers with varied research interests from a wide range of locales. A graduate student seminar gives students the opportunity to explore topics that extend the required coursework. The applied mathematics group's specialty is computational and polymer fluid dynamics. Research groups have strong links with science and engineering departments within Central Michigan University, other universities and industry.

Computing facilities within Pearce Hall, where the department is located, include microcomputer laboratories with Macintosh and PC computers.

Two types of financial aid are available: graduate fellowships and graduate teaching assistantships. Some of these are specified for doctoral students and carry a higher stipend. A limited number of graduate research assistantships may be available, and are dependent on current grant funding. Additional support is available for members of under-represented minority groups.

Completed applications for fellowships are due Feb. 6. Completed applications for assistantships must be submitted by March 1, although late applications may be considered if positions are available.

Master of Arts (M.A.) in Mathematics

Minimum Totals for Graduation: 30 hours

The M.A. degree has an emphasis in the more computational aspects of mathematics for students who are interested in jobs in industry and government. The degree program also retains the flexibility to prepare students for teaching mathematics at the undergraduate level or to undertake doctoral work in mathematics.

The requirements are those that a student with minimal undergraduate preparation would have to fulfill.

Any student having satisfied any of the course requirements prior to entering the program may be excused from that course requirement. However, the 30-hour requirement will not be affected.

If the student elects to write a thesis, it shall be in mathematics. If a student elects to follow non-thesis Plan B, two projects in two fields of mathematics must be completed under the direction of graduate faculty. More detailed information is available in the department office.

Admission Requirements, Retention & Termination Standards

Admission is dependent upon a student having completed a minimum of 20 semester hours of mathematics including MTH 233 (Calculus III) or its equivalent, and one course in either linear or abstract algebra. A grade point average of 2.7 overall and a 2.7 in mathematics are required.

Degree Requirements

Algebra Requirements (6 hours)
MTH 525 - Modern Algebra II 3(3-0)
MTH 623 - The Theory of Groups 3(3-0)

Analysis Requirements (9 hours)
MTH 533 - Advanced Calculus II 3(3-0)
MTH 632 - Introduction to Real Analysis and Its Applications 3(3-0)
MTH 636 - Introduction to Complex Variables 3(3-0)

Computational Mathematics Requirement (3 hours)
Select one of the following:
CPS 530 - Simulation of Discrete Event Systems 3(3-0)
MTH 520 - Optimization Theory 3(3-0)
MTH 578 - Combinatorics I 3(3-0)
MTH 638 - Theoretical Numerical Analysis 3(3-0)

Perspectives in Math Requirement (3 hours)
Select one of the following:
MTH 671 - Introduction to the Axiomatic Method 3(3-0)
MTH 673 - History of Advanced Mathematics 3(3-0)
MTH 694 - Practicum in Mathematics 3(3-0)

Statistics Requirement (3 hours)
Any Statistics course offered by the mathematics department numbered STA 500 or higher.

Research Requirements (6 hours)
Select either plan A or plan B.

Plan A (6 hours)
Completion of a thesis, including an oral examination over the thesis.
MTH 798 - Thesis 1-6(Spec)

Plan B (6 hours)
Required Courses (3 hours)
1 hour of MTH 693, plus 1 hour of MTH 698 for Plan B paper 1, and 1 hour of MTH 698 for Plan B paper 2:
MTH 693 - Graduate Seminar in Mathematics and Its Applications 1-4(Spec)
MTH 698 - Plan B Project 1-2(Spec)

Electives (3 hours)
May be chosen from among all graduate level mathematics, statistics, and computer science courses. A student may select up to three hours from a department other than mathematics or computer science. Electives must be chosen with approval of the advisor.

Total: 30 semester hours

ACCELERATED MASTER OF ARTS IN MATHEMATICS

Advanced undergraduate students majoring in mathematics may want to consider an option by which they can obtain their Bachelor of Arts or Bachelor of Science in Mathematics and their Master of Arts in Mathematics in five years. The accelerated program requirements are identical to the Major in Mathematics and to the Master of Arts in Mathematics, but allow the student to apply 12 credit hours of graduate coursework toward both the Bachelor of Arts or the Bachelor of Science and the Master of Arts degrees.
Admission Requirements, Retention & Termination Standards

To be eligible for the accelerated program, a student must have completed a minimum of 20 semester hours of mathematics including MTH 233 (Calculus III) or its equivalent, and one course in either linear or abstract algebra. A grade point average of 3.0 overall and a 3.0 in mathematics are required. In addition, students must have completed MTH 332 or its equivalent with a letter grade of at least B and must have completed at least 90 credit hours of undergraduate course work, including all competency requirements and all but 12 credit hours of University Program requirements.

Degree Requirements

During the fourth year, students will complete MTH 632 or MTH 636, MTH 525, 533, 623 to be counted toward both the undergraduate and graduate degrees. Students will complete the Bachelor of Arts or Bachelor of Science degree requirements by the end of the summer term of the fourth year. Students will complete the coursework for the Master of Arts and complete either the Plan A or Plan B option by the end of the summer term of their fifth year.

A sample curriculum for a student who has completed 90 credit hours of undergraduate coursework is given below.

Year 4 - Fall (15 hours)
- Undergraduate Courses (9 hours), plus 3 hours each of MTH 525 and 632:
  - MTH 525 - Modern Algebra II 3(3-0)
  - MTH 632 - Introduction to Real Analysis and Its Applications 3(3-0)

Note: MTH 525 and 632 apply to both the BA/BS and MA degrees. Students must register for graduate credit in these courses.

Year 4 - Spring (15 hours)
- Undergraduate courses (9 hours), plus 3 hours each of MTH 533 and MTH 623.
- MTH 533 - Advanced Calculus II 3(3-0)
- MTH 623 - The Theory of Groups 3(3-0)

Note: MTH 533 and 623 apply to both the BA/BS and MA degrees. Students must register for graduate credit for these courses.

Year 4 - Summer (4 hours)
- Undergraduate courses up to 4 hours.

BA or BS degree conferred.

Year 5 - Fall (7-9 hours)
- A statistics (STA) elective (3 hours), MTH 636 (3 hours), plus:
  - For Plan B, 1 hour of MTH 698.
  - For Plan A, 6 hours of MTH 798 over two semesters.
- MTH 636 - Introduction to Complex Variables 3(3-0)
- MTH 698 - Plan B Project 1-2(Spec)
- MTH 798 - Thesis 1-6(Spec)

Year 5 - Spring (6-8 hours)
- Computational/Perspective (3 hours), plus:
  - For Plan B, a Plan B elective (3 hours), and 1 hour each of MTH 693 and 698.
  - For Plan A, students must complete 6 hours of MTH 798 over the course of two semesters.
- MTH 693 - Graduate Seminar in Mathematics and Its Applications 1-4(Spec)
- MTH 698 - Plan B Project 1-2(Spec)
- MTH 798 - Thesis 1-6(Spec)

Year 5 - Summer (3 hours)
- Computational Mathematics Requirement or Perspectives in Mathematics Requirement (3 hours)

(M.A. degree conferred)

Master of Arts in Teaching (MAT)

Minimum Totals for Graduation: 30 hours

The M.A.T. is designed for secondary school teachers who want to strengthen their preparation in mathematics and teaching.

The requirements are those that a student with minimal undergraduate preparation would have to fulfill.

Any student who has satisfied any of the course requirements prior to entering the program may be excused from these course requirements. However, the 20 hours of mathematics and the 30 hour total will not be affected.

If the student elects to write a thesis, it shall be in mathematics education. If the student elects to follow non-thesis Plan B, one of the two papers shall be in mathematics education and the other shall be in another field of mathematics.

Admission Requirements, Retention & Termination Standards

Note: Effective Spring, 2008 through Spring, 2009, the department is not accepting students into the M.A. in Teaching Mathematics. Questions regarding this matter may be directed to the chair of the Mathematics Department at 989-774-3596.

Admission is dependent upon a student having completed a minimum of 20 semester hours of mathematics including MTH 233 (multivariate calculus) or the equivalent. A grade point average of 2.5 in mathematics is required.

Degree Requirements

Algebra Requirements (6 hours)

Select two from the following:
- MTH 523 - Modern Algebra I 3(3-0)
- MTH 525 - Modern Algebra II 3(3-0)
- MTH 623 - The Theory of Groups 3(3-0)
- MTH 625 - Theory of Associative Rings 3(3-0)
- MTH 671 - Introduction to the Axiomatic Method 3(3-0)

Analysis Requirement (3 hours)

Select one from the following:
- MTH 532 - Advanced Calculus I 3(3-0)
- MTH 533 - Advanced Calculus II 3(3-0)
- MTH 545 - Introduction to Point-Set Topology 3(3-0)
- MTH 632 - Introduction to Real Analysis and Its Applications 3(3-0)
- MTH 633 - Real Variables 3(3-0)
- MTH 636 - Introduction to Complex Variables 3(3-0)
- MTH 637 - Complex Variable Theory 3(3-0)
- MTH 645 - Topology 3(3-0)

Geometry Requirement (3 hours)

MTH 641 - Topics in Geometry 3(3-0)

Mathematics Education Requirements (6 hours)

Select two from the following:
- MTH 658 - Workshop in Teaching Mathematics 1-6(Spec)
- MTH 660 - Laboratory: Construction and Use of Teaching Aids in Mathematics 2(1-2)
- MTH 661 - The Teaching of Middle School Mathematics 3(3-0)
- MTH 666 - Seminar: Problems in the Teaching and Supervision of Secondary 3(3-0)

Additional Requirement (6 hours)

Select one course from the following:
- Applied Math: MTH 578, MTH 586, MTH 638
- History of Mathematics: MTH 573, MTH 673
- Probability and Statistics: STA 580, STA 584

(continued)
Ph.D. in Mathematics with a concentration in the Teaching of College Mathematics

Minimum Totals for Graduation: 90 hours

The Ph.D. degree is a content-based degree designed to develop well-prepared teachers of college mathematics who combine knowledge and skill in mathematics with a desire to teach it effectively. Coursework is broadly distributed across the various areas of mathematics and is intended to help students achieve a level of sophistication in mathematical knowledge that will establish a professional attitude about mathematics. Students would be prepared to do research in traditional mathematics or in areas related to the teaching of collegiate mathematics. Emphasis on pedagogy includes two required courses plus an internship.

Admission Requirements, Retention & Termination Standards

1. Applicants must meet all College of Graduate Studies admission requirements.
2. Applicants with a Bachelor’s degree must have successfully completed 20 semester hours of mathematics including MTH 233 (Multivariate Calculus) or equivalent, and one course in either linear or abstract algebra. A minimum GPA of 3.0 in mathematics is required. (A student entering with the minimum would likely have to take some prerequisite courses before taking the courses required for this program.)
3. Applicants with Master’s degrees in mathematics equivalent to the M.A. or M.A.T. degree at Central Michigan University must have a minimum GPA of 3.0 in their graduate work.
4. Applicants must submit GRE examination scores, however, this requirement may be waived by the Department in exceptional cases.

Applicants from non-English speaking countries must achieve a satisfactory score on the Test of English as a Foreign Language (TOEFL): a minimum score of 550 PBT, 213 CBT, or 79 iBT is required for applicants to the graduate college.

The nature of previous coursework, grades, and GRE score will be used by the department in evaluation of candidates for admission. Awards of Graduate Assistantships and Fellowships are competitive, with evaluation based on courses, grades, GRE scores, and letters of recommendation.

Program Requirements

Successful completion of the Ph.D. requires a minimum of 90 semester hours of graduate work beyond the bachelor’s degree or 60 hours of graduate work beyond the master’s degree. In order to obtain the Ph.D. degree the student must have a GPA of 3.0 (B) or better. A student with a bachelor’s degree must have earned at least 50 of the total 90 hours at the 600 level or above. Those entering with a master’s degree must have earned at least 35 of the 60 hours at the 600 level or above. At least 15 of the last 30 hours must be earned at the 700 level or above, excluding the dissertation and the internship credits.

Coursework - The program requires a minimum of 69 hours of coursework exclusive of internship and the dissertation credit beyond the bachelor’s degree or 39 hours of such coursework after the master’s degree. These hours are distributed among core courses and courses in area of specialization as given below. The minimum hours that are required in each category is specified in parentheses. An advisor will assist a student in the selection of the courses.

Courses in which a student earns or has earned a grade below C (2.0) do not count toward meeting any graduate degree requirements.

Any student having satisfied any of the course requirements prior to entering the program may be excused from that course requirement. However, the total hour requirement of 69 (or 39) semester hours will not be affected.

Degree Requirements

A. Core Courses I - Algebra (9 hours)
MTH 525 - Modern Algebra II 3(3-0)
MTH 623 - The Theory of Groups 3(3-0)
MTH 625 - Theory of Associative Rings 3(3-0)

B. Core Courses II - Analysis (12 hours)
MTH 533 - Advanced Calculus II 3(3-0)
MTH 632 - Introduction to Real Analysis and Its Applications 3(3-0)
MTH 633 - Real Variables 3(3-0)
MTH 636 - Introduction to Complex Variables 3(3-0)
MTH 637 - Complex Variable Theory 3(3-0)

Note: You may select either MTH 633 or 637, but not both.

C. Core Courses III - Mathematics Education (6 hours)
MTH 761 - Methods for Teaching College Mathematics 3(3-0)
MTH 762 - Research in Collegiate Mathematics Education 3(3-0)

D. Core Electives I - Applied Mathematics (6 hours)
Select two of the following:
MTH 520 - Optimization Theory 3(3-0)
MTH 586 - Operations Research I 3(3-0)
MTH 634 - Fourier Analysis 3(3-0)
MTH 638 - Theoretical Numerical Analysis 3(3-0)

E. Core Electives II - Combinatorics (6 hours)
MTH 578 - Combinatorics I 3(3-0)
MTH 678 - Combinatorics II 3(3-0)
F. Core Electives III - Statistics (6 hours)
- Select two of the following:
  STA 580 - Applied Statistical Methods I 3(3-0)
  STA 584 - Mathematical Statistics I 3(3-0)
  STA 684 - Theory of Statistical Inference 3(3-0)

G. Core Electives IV - Topology and Foundations (6 hours)
- Select two of the following:
  MTH 641 - Topics in Geometry 3(3-0)
  MTH 645 - Topology 3(3-0)
  MTH 673 - History of Advanced Mathematics 3(3-0)

H. Other Electives (3-9 hours)
- Elective courses can be from outside the mathematics department. These elective courses are to be selected by each student in consultation with his/her advisor or dissertation supervisor.

Area of Specialization (9-15 hours)
- Each student, in consultation with his/her dissertation supervisor, will select at least 9 semester hours of courses in the area of specialization. These courses can be from outside the mathematics department. The areas of specialization include the following: Algebra, Applied Mathematics, Approximation Theory, Combinatorics, Functional Analysis, Mathematics Education, Number Theory, Operator Theory, and Statistics.

Qualifying Examination
- In addition to demonstration of competence in the coursework in the above-mentioned areas, the student must pass a qualifying examination in three of the areas:
  1. Algebra
  2. Analysis
  3. and one from:
     C. Mathematics Education OR
     D. Applied Mathematics OR
     E. Combinatorics OR
     F. Statistics OR
  G. Topology and Foundations of Mathematics.

The format of the exam (oral/written) for each student will be determined in consultation with an examination committee made up of Mathematics Department graduate faculty members. The committee will administer and grade these exams.

In the Ph.D. qualifying examinations, students are expected to demonstrate broad knowledge of mathematics, be able to integrate mathematical concepts and explain them at an appropriate level. Full time students have a maximum of seven regular semesters (not counting summer term) to pass the examination in all three areas. Part-time students may request the department for additional time. Two attempts in each area are allowed. A second failure in one area eliminates the student from the Ph.D. program.

Internship (6 hours)
- Students are required to teach two courses in mathematics/statistics at the 200 level or above under the supervision of a graduate faculty member in the Department of Mathematics. The student must earn the credits by registering for MTH 766.
- MTH 766 - Internship: College Teaching 3-6(Spec)

Dissertation (15 hours)
- Upon successful completion of the qualifying examinations, the student will select a dissertation supervisor. A dissertation supervisor must be a graduate faculty member in the Mathematics Department. The student will form a dissertation committee in consultation with the dissertation supervisor. This dissertation committee will be chaired by the supervisor and must include at least three other graduate faculty members. Two members of the dissertation committee must be from the Mathematics Department.

A completed doctoral dissertation must be approved by the dissertation committee, and by the College of Graduate Studies. Students are required to register for 15 hours of MTH 898 (Dissertation). The dissertation must consist of original work and can combine scholarly, analytical, creative and expository skills. It could consist of research on a topic in mathematics, an expository or historical examination of a piece of mathematics, or research on a topic related to the teaching of collegiate mathematics. Before starting the dissertation work, the project to be undertaken must be approved by the dissertation committee, and by the College of Graduate Studies.

Upon completion of coursework, qualifying examination, internship, and dissertation, the candidate for the Ph.D. degree must pass a final oral examination which is a dissertation defense in a colloquium format. The student's dissertation committee determines whether the student passes the examination.

The dissertation must be prepared according to the regulations prescribed in the College of Graduate Studies most recent edition of the Preparation Guide to Doctoral Dissertations, Theses, Field Studies, and Plan B Papers and must be submitted to Dissertations Abstracts International.

Total: 90 semester hours

Certificate in Data Mining

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

Course Descriptions: MTH

MTH 520 Optimization Theory 3(3-0)
- An introduction to the theory, practical applications and algorithms of nonlinear programming. Prerequisites: MTH 233.

MTH 521 Theory of Numbers 3(3-0)
- Properties of integers, congruences, greatest common divisors and prime factorization, applications of number theory to computer science and cryptography. Prerequisite: MTH 332.

MTH 522 Math of Cryptology 3(3-0)
- The mathematics and algorithms of classical and computer-age cryptography. Substitution, transposition, stream and block ciphers; DES, Rijndael and public key cryptography; cryptanalysis of cipher systems. Prerequisites: CPS 340 or MTH 332.

MTH 523 Modern Algebra I 3(3-0)
- Groups, rings, integral domains, fields, and fundamental homomorphism theorems. Prerequisite: MTH 332 or graduate status.

MTH 525 Modern Algebra II 3(3-0)
- Vector spaces, subspaces, bases and dimensions; linear transformations, their algebra, their representation by matrices, and linear functionals; eigenvalues, triangularizable and diagonalizable transformations; inner product spaces. Prerequisite: MTH 523.

MTH 532 Advanced Calculus I 3(3-0)
- Rigorous development of calculus for functions of one variable. Sequences, limits, continuity, differentiation, integration, exponential and logarithmic functions, arc length, series. Credits will not count towards M.A. or Ph.D. degree requirements in mathematics. Prerequisites: MTH 233 and MTH 332, or graduate status.

MTH 533 Advanced Calculus II 3(3-0)
- Continuation of MTH 532. Rigorous development of calculus for functions of several variables. Limits, continuity, differentiation, and integration. Prerequisite: MTH 532.
MTH 534 Applied Mathematics and Differential Equations 3(3-0)
Initial-boundary value (linear, nonlinear) problems, orthogonal functions, differential operators, numerical techniques, introduction to partial differential equations, applications to biology, chemistry, engineering, medicine, and physics. Prerequisites: MTH 233, 334.

MTH 539 Mathematical Foundations of Actuarial Science 3(3-0)
Develop a knowledge of fundamental mathematical tools for quantitatively assessing risk. The application of these tools to problems encountered in actuarial science is emphasized. Does not count toward graduate degree. CR/NC only. Prerequisites: FIN 257; STA 584.

MTH 545 Introduction to Point-Set Topology 3(3-0)
Development of elementary point-set topology. Sets, functions, metric spaces, topological spaces, quotient surfaces, compactness, and connectedness. Prerequisite: MTH 332 or graduate status.

MTH 551 Mathematical Structures for K-8 Mathematics Teachers 3(3-0)
Problem-solving, set theory, logic, number theory, algebra, consumer mathematics and mathematical systems. Credit will not apply toward a master’s degree in mathematics. Prerequisites: MTH 351 and MTH 554

MTH 553 History of Elementary Mathematics for K-8 Teachers 3(3-0)
History of mathematical developments of western and non-western cultures for use in grades K-8. Credit can only be earned in one of the following: MTH 253 or MTH 553 and will not apply toward master’s degree in mathematics. Prerequisites: MTH 351 and MTH 554

MTH 554 Probability and Statistics for K-8 Mathematics Teachers 3(3-0)
Examines experimental and theoretical probability and statistics suitable for elementary and middle school. Simulations, counting techniques, and data gathering, organization, analysis and presentations. Credit will not apply toward Master’s degree in mathematics. Prerequisites: MTH 256.

MTH 556 Microcomputers for Elementary Mathematics Teachers 3(3-0)
Develops the use of microcomputers in elementary education with particular emphasis on mathematical applications. Computer literacy and BASIC programming are included. Open only to those students pursuing a B.S. in Elementary Emphasis. Prerequisites: MTH 107, MTH 251.

MTH 557 Using Graphics Calculators in Mathematics Education 1(1-0)
Course is designed for secondary mathematics education majors and minors. Emphasis will be on the classroom use of graphics calculators to teach mathematics. Prerequisites: MTH 132; with MTH 223 as a corequisite.

MTH 566 Microcomputers for Secondary Mathematics Teachers 3(3-0)
Examines microcomputer use in secondary education with particular emphasis on mathematical applications. Open only to those students pursuing a B.S. in Ed., Secondary Emphasis. Prerequisite: MTH 223.

MTH 570 Mathematical Logic 3(3-0)
Logical connectives, truth tables, quantifiers, models, logical truth. Incompleteness and undecidability of elementary number theory. Prerequisite: MTH 332.

MTH 573 History of Mathematics 3(3-0)
History of arithmetic, algebra, geometry, calculus. Prerequisites: MTH 332 or MTH 341, or graduate status.

MTH 578 Combinatorics I 3(3-0)
Introduction to the basic principles of combinatorics and graph theory with applications to problems of nonmathematical origin. Prerequisites: MTH 523.

MTH 586 Operations Research I 3(3-0)
Mathematical theory and applications of mathematical programming. Linear programming duality, integer programming, mixed integer programming, and dynamic programming. Prerequisites: MTH 133

MTH 587 Operations Research II 3(3-0)
Continuation of MTH 586. Theory and application of stochastic models in operations research. Inventory models, queuing theory. Markov chains, stochastic programming. Prerequisites: STA 382, MTH 586.

MTH 591 Seminar in the Solution of Putnam Problems 1-3(Spec)
Problem-solving techniques demonstrated through solutions of the Putnam Examination problems. Designed particularly for those students interested in participating in the Putnam Examination. Prerequisite: MTH 233; permission of instructor.

MTH 594 Seminar in Higher Mathematics 3(3-0)
Class presentation of results of independent study, and final comprehensive written report in an approved subject. Prerequisite: one year of calculus; permission of instructor.

MTH 595 Special Topics in Mathematics Education 1-6(Spec)
Subject matter not included in regular mathematics education course. May be taken for credit more than once, total credit not to exceed 6 hours. Does not count as one of two 400 or 500-level courses required on mathematics major. May not be counted toward a major or minor in mathematics except for students pursuing a B.S. in Ed. degree. Prerequisite: permission of instructor.

MTH 596 Special Topics in Mathematics 1-6(Spec)
Subject matter not included in regular course. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of instructor.

MTH 597 Independent Study 1-6(Spec)
Open to students with permission of instructor. May be taken for credit more than once, total credit not to exceed 6 hours.

MTH 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

MTH 623 The Theory of Groups 3(3-0)
First graduate level course in algebra. Isomorphism theorems for group, Sylow theorems, nilpotent and solvable groups, modules over principal ideal domains/ abelian groups. Prerequisites: MTH 523
MTH 625 Theory of Associative Rings 3(3-0)
Second graduate level course in algebra. Ring theory, module theory, categories and functors, tensor products. Prerequisites: MTH 623.

MTH 632 Introduction to Real Analysis and Its Applications 3(3-0)
Development of integration theory with introduction to Lebesgue measure and integral on the real line. Elementary theory of normed spaces, bounded linear operators and linear functionals with applications. Prerequisite: MTH 532.

MTH 633 Real Variables 3(3-0)

MTH 634 Fourier Analysis 3(3-0)

MTH 636 Introduction to Complex Variables 3(3-0)
Complex numbers, analytic functions, elementary functions, Cauchy’s theorem, Integral formula, Taylor and Laurent series, residue theorem and its applications, Rouche’s theorem. Prerequisite: MTH 532.

MTH 637 Complex Variable Theory 3(3-0)
Conformal mapping, Mobius transformations, harmonic functions, Dirichlet problem, entire and meromorphic functions, analytic continuation, Reimann surfaces, applications of complex analysis. Prerequisite: MTH 636.

MTH 638 Theoretical Numerical Analysis 3(3-0)
Numerical linear algebra with applications in linear and nonlinear systems. Interpolation and approximation and their applications to numerical differentiation, numerical integration, and differential equations. Prerequisite: MTH 532. Corequisite: MTH 533.

MTH 641 Topics in Geometry 3(3-0)
Advanced topics in geometry, foundations, non-Euclidean geometry. Prerequisite: MTH 341.

MTH 644 Differential Geometry 3(3-0)
Differential geometry of curves and surfaces. Curvature, maps between surfaces, vector fields and differential forms, Stokes’ Theorem, Euler Characteristic, Gauss-Bonnet Theorem, manifolds, Riemannian metrics. Prerequisites: MTH 532 or 545.

MTH 645 Topology 3(3-0)
A continuation of MTH 545. Topics include fundamental groups, product spaces, covering spaces, and homology. Prerequisite: MTH 523 or MTH 545.

MTH 651 Basic Ideas and Procedures in Elementary School Arithmetic 3(3-0)
Mathematical concepts, fundamental processes, and mensuration formulas. Prerequisite: successful completion of the Elementary Teachers Proficiency Tests.

MTH 652 The Teaching of Measurement 3(3-0)
The history, concepts, and learning of measurement systems. The metric system and laboratory activities are emphasized. Prerequisite: teaching experience.

MTH 654 Teaching & Learning Mathematics with Technology 3(3-0)
Use of instructional technology for teaching and learning mathematics and an introduction to related research literature in mathematics and mathematics education. Prerequisite: MTH 566.

MTH 658 Workshop in Teaching Mathematics 1-6(Spec)
Preparing materials and investigating methods for teaching mathematics in grades K-12. May be repeated, total credit not to exceed 6 hours. Prerequisite: permission of the instructor.

MTH 660 Laboratory: Construction and Use of Teaching AIDS in Mathematics 2(1-2)
Multisensory aids produced and demonstrated. Devices and models constructed.

MTH 661 The Teaching of Middle School Mathematics 3(3-0)
Objectives of mathematics instruction in the middle school. Prerequisite: minor in mathematics or teaching experience in middle or senior high school mathematics.

MTH 665 Seminar: Problems in the Teaching and Supervision of Secondary Mathematics 3(3-0)
Current practices and significant research in secondary school mathematics.

MTH 671 Introduction to the Axiomatic Method 3(3-0)
Study of the foundations of mathematics. Axiomatic set theory, ordinal and cardinal arithmetic. The axiom of choice and continuum hypothesis. Prerequisites: MTH 521, MTH 523, or MTH 532.

MTH 673 History of Advanced Mathematics 3(3-0)
History of the development of modern mathematics from 1700 into the 20th century. Prerequisites: MTH 525 and MTH 532.

MTH 678 Combinatorics II 3(3-0)
Finite geometries, combinatorial designs, strongly regular graphs, and error correcting codes. Prerequisite: MTH 578. Corequisite: MTH 525.

MTH 692 Graduate Seminar in Mathematics Education 1-4(Spec)
Seminars will focus on current issues in mathematics education. May be taken for credit more than once, total credit not to exceed 4 hours. The credit needed before it counts as elective on any graduate degree in mathematics. Prerequisites: admission to graduate program in mathematics.

MTH 693 Graduate Seminar in Mathematics and Its Applications 1-4(Spec)
One hour seminars in subfields of mathematics and its applications; 3 credits needed before it counts as elective on any graduate degree in mathematics. Prerequisites: Graduate standing in mathematics and permission of instructor.

MTH 694 Practicum in Mathematics 3(3-0)
Taken during last semester in the M.A. program. Introduces concepts of mathematical modeling using deterministic and probabilistic methods. When possible, supervised consulting work in industry. Prerequisites: MTH 623 and permission of instructor.

MTH 695 Special Topics in Mathematics Education 1-6(Spec)
Consideration of 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 696 Special Topics in Mathematics 1-6(Spec)
Consideration of 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 697 Independent Study 1-9(Spec)
Open to graduate students in mathematics with permission of instructor. May be taken for credit more than once; total credit not to exceed 9 hours.

MTH 698 Plan B Project 1-2(Spec)
Plan B paper is normally an expository paper or research project on an area or problem related to but in addition to material covered in a course, written under the direction of graduate faculty. Each Plan B project is 1 credit hour. May be taken for credit more than once. Total credit not to exceed 2 hours. CR/NC only. Prerequisites: permission of advisor.

MTH 725 Topics in Algebra 3(3-0)
Advanced topics in abstract algebra. Designed to add breadth to the student’s abstract algebra background and to open possible research areas. Prerequisites: MTH 625.

MTH 732 Functional Analysis 3(3-0)
Fundamentals of topological vector spaces, normed spaces, Banach and Hilbert spaces, functional on such spaces, operators on Banach and Hilbert spaces, spectral theorems, Banach algebras. Prerequisites: MTH 632 and MTH 636.

MTH 734 Partial Differential Equations and Applications 3(3-0)
Solutions of partial differential equations by analytic and numerical techniques using standard methods, including Fourier series and Laplace transforms, perturbation, finite elements and finite differences. Prerequisites: MTH 334 and MTH 636.

MTH 761 Methods for Teaching College Mathematics 3(3-0)
Methods in teaching undergraduate mathematics education including use of technology, cooperative learning, inquiry, and guided discovery. Students will create activities and debate issues surrounding undergraduate instruction. Prerequisites: completion of 30 hours of coursework required for the Doctoral program and at least one semester of teaching experience at the post secondary level (this may include a teaching assistantship).

MTH 762 Research in Collegiate Mathematics Education 3(3-0)
Introduction to the research literature in collegiate mathematics education including learning theories for mathematics, literature search strategies, issues in mathematics education, and writing about and debating such issues. Prerequisites: completion of 30 hours of coursework required for the Doctoral program and at least one semester of teaching experience at the post secondary level (this may include a teaching assistantship); MTH 761.

MTH 764 Qualitative Research Methods in Mathematics Education 3(3-0)
Introduction to the qualitative research in mathematics education including research design, development of protocols, fieldwork, collecting and analyzing data and techniques for interviewing. Prerequisite: MTH 762.

MTH 766 Internship: College Teaching 3-6(Spec)
Teaching of undergraduate mathematics or statistics courses 200 level or above. Students will conduct their teaching internship under the supervision of a graduate faculty member. CR/NC only. Prerequisites: MTH 761; successful completion of all qualifying examinations.

MTH 767 Seminar in Collegiate Mathematics Education I 3(3-0)
Use of a review of literature to focus research questions and to develop a research proposal. Each student develops a proposal for his/her dissertation research. Prerequisites: MTH 764; EDU 660. Corequisite: MTH 692.

MTH 768 Seminar in Collegiate Mathematics Education II 3(3-0)
Design and execution of a pilot study of student’s proposed dissertation research. This course requires a concurrent enrollment in MTH 692. Prerequisite: MTH 767.

MTH 778 Topics in Combinatorics 3(3-0)
Advanced topics in combinatorics. Designed to add breadth to the student’s combinatorial background and to open possible research areas. Prerequisite: MTH 678.

MTH 796 Special Topics in Mathematics 1-6(Spec)
Consideration of subject matter not included in regular courses. May be taken for credit more than once; total credit not to exceed 6 hours. Prerequisite: completion of 30 hours of coursework required for the Doctoral program.

MTH 797 Independent Study 1-9(Spec)
Open to doctoral students in mathematics who have completed 30 hours of coursework required toward the Doctoral program, with permission of the instructor. May be taken for credit more than once; total credit not to exceed 9 hours.

MTH 798 Thesis 1-6(Spec)
Work towards Master’s thesis. Prerequisites: Graduate status and permission of thesis advisor. CR/NC only.

MTH 898 Dissertation 1-30(Spec)
Doctoral Dissertation Research. CR/NC only. Prerequisites: Doctoral status and permission of dissertation advisor.

Course Descriptions: STA

STA 575 Statistical Programming for Data Management and Analysis 3(3-0)
Introduction to statistical programming for managing and analyzing data, including programming logic, data manipulation, missing data handling, basic techniques for analyzing data and creating reports. This course has been approved for offering in a distance learning format. Prerequisites: STA 282 or STA 382 or equivalent.

STA 580 Applied Statistical Methods I 3(3-0)
Applications of statistical methods including the usage of computer packages. Topics include forecasting, simple and multiple regression, and analysis of variance. This course has been approved for offering in a distance learning format. Prerequisites: STA 282 or STA 382; or graduate standing.

STA 582 Experimental Designs 3(3-0)
Randomized block designs, Latin square designs, factorial designs, fractional factorial designs, response surface methods, robust designs. Prerequisite: STA 580.

STA 583 Nonparametric Statistics 3(3-0)
Theory and applications of nonparametric methods. Topics include one-, two-, and several-sample problems, rank correlation and regression, Kolmogorov-Smirnov tests, and contingency tables. Prerequisite: STA 382.
STA 584 Mathematical Statistics I 3(3-0)
Probability defined on finite and infinite samples spaces, conditional probability and independence, random variables, expectations, moment-generating functions, probability models, limit theorems. Prerequisite: MTH 233.

STA 585 Mathematical Statistics II 3(3-0)
Introductory topics from mathematical theory of statistics: population distributions, sampling distributions, point and interval estimation, tests of hypotheses. Prerequisite: STA 584.

STA 586 Clinical Trials and Survival Analysis 3(3-0)
Simple and advanced statistical techniques used in the analysis and interpretation of clinical research data. Emphasis on statistical techniques commonly used in chronic disease analysis. Prerequisites: STA 382.

STA 587 Statistical Theory and Methods for Quality Improvement 3(3-0)
Statistical theory and methods for optimizing quality and minimizing costs; classical and recently developed on-line methods and Taguchi’s off-line quality and robust designs. Prerequisites: STA 580.

STA 588 Sampling Techniques 3(3-0)
Principles of sampling; simple random sampling; stratified random sampling; systematic sampling; cluster sampling; sample size determination; ratio and regression estimates; comparisons among the designs. Prerequisites: STA 382.

STA 589 Time Series Forecasting 3(3-0)
Introduction to basis time series forecasting techniques. Topics include forecasting, Box-Jenkins models, time series regression, exponential smoothing, and transfer function models. Prerequisites: STA 580.

STA 590 Applied Statistical Methods II 3(3-0)
Multiway ANOVA, multiple comparison procedures, analysis of covariance, repeated measures analysis, unbalanced data and missing data analysis. Prerequisites: STA 580 and MTH 223.

STA 591 Data Mining Techniques I 3(3-0)
Supervised data mining techniques for analyzing large and high dimensional data. Topics include data mining strategy, data processing, predictive modeling techniques, model assessment and comparison. This course has been approved for offering in a distance learning format. Prerequisites: STA 580 or graduate standing.

STA 592 Six Sigma: Foundations and Techniques for Green Belts 3(3-0)
Six Sigma problem solving strategy for continuous improvements. Topics include DMAIC and PDSA strategies and applications, tools and statistical techniques used in the strategies. Prerequisites: STA 282 or 382; or graduate standing.

STA 596 Special Topics in Statistics 1-6(Spec)
Subject matter not included in regular courses. May be taken for credit more than once, total credit not to exceed 6 hours. Prerequisite: permission of the instructor.

STA 597 Independent Study 1-6(Spec)
The in-depth study of a topic in statistics under the direction of a faculty member. May be taken for credit more than once, total credit not to exceed six hours. Prerequisite: Permission of instructor.

STA 680 Statistical Data Analysis and Consulting 3(3-0)
Advanced data analysis techniques, including categorical data analysis methods, logistic and loglinear models using statistical software such as SAS, SPSS, and MINITAB. Principles and techniques of statistical consulting. Prerequisite: STA 580.

STA 682 Linear Models 3(3-0)
Theory and application of least squares method and hypothesis testing for the linear regression models. Prerequisites: MTH 525; STA 584.

STA 684 Theory of Statistical Inference 3(3-0)
Stochastic convergence and limiting theorems, sampling distributions, theory of point estimation and hypothesis testing, general linear hypotheses, sequential probability ratio test. Prerequisites: MTH 532 and STA 584.

STA 686 Multivariate Analysis 3(3-0)
Multivariate normal distributions, multivariate methods including multivariate analysis of variance, multivariate regression, principal component analysis, factor analysis, canonical correlation, discriminant analysis and cluster analysis. Prerequisites: STA 580, STA 584.

STA 696 Special Topics in Statistics 1-6(Spec)
Subject matter not included in regular courses. Course may be taken for credit more than once, total credit not to exceed six hours. Prerequisites: Graduate student status and permission of instructor.

STA 697 Independent Study 1-9(Spec)
The in-depth study of a topic in statistics under the direction of a faculty member. May be taken for credit more than once, total credit not to exceed nine hours. Prerequisites: Permission of instructor.

STA 782 Generalized Linear Models 3(3-0)
Theory and applications of generalized linear models, models for continuous data, models for binary and polytomous data, log-linear models, quasi-likelihood functions and model checking. Prerequisite: STA 682.

STA 784 Theory of Estimation 3(3-0)
Theory of point estimation in Euclidean sample spaces. Topics include unbiasedness, equivariance, global properties, large-sample theory, and asymptotic optimality. Prerequisites: STA 684; MTH 632.

STA 797 Independent Study 1-9(Spec)
The in-depth study of a topic in statistics under the direction of a faculty member. May be taken for credit more than once, total credit not to exceed nine hours. Prerequisites: Permission of instructor.
Applicants must submit three letters of recommendation and a writing example (e.g., term paper from undergraduate studies) to the School of Music.

3. Additional admission requirements for each concentration are as follows:
   • Composition applicants must submit a portfolio of their compositions accompanied by a CD recording.
   • Conducting applicants must submit a VCR or DVD of their conducting.
   • Music Education applicants must have a music education degree or a major with at least 40 hours in music.
   • Performance applicants must audition with the appropriate faculty member or performance area.
   • Piano Pedagogy applicants must audition with the appropriate keyboard faculty member and submit a video of their teaching.

4. Any exceptions to the above requirements must be approved by the School of Music Graduate Committee.

Program Requirements
1. Each candidate will develop a program of studies in consultation with a school graduate advisor.

2. Candidates for the Master of Music degree must pass a comprehensive examination. Comprehensive exams may be taken a maximum of three times.

3. Credit earned in courses taken to remove deficiencies will not apply toward the graduate degree.

4. Candidates for the Master of Music degree must complete the Music Core and the requirements of one of the concentrations.

5. Candidates for the Master of Music: Music Education concentration must have completed certification requirements before graduation.

Degree Requirements
Core Courses (12 hours)
MUS 791 - Introduction to Music Research 3(3-0)

Plus:
• 3-6 hours in Music Theory
• 3-6 hours in Music History/Literature

These courses selected in consultation with an advisor.

Concentrations
Select one of the following options:

Music: Composition

Required Courses (12 hours)
MUS 701 - Advanced Composition 2-6(Spec)
MUS 798 - Thesis 1-6(Spec)

Note: 8 hours of MUS 701; 4 hours of MUS 798.

Electives (6 hours)
Participation in conducted or coached ensembles is recommended (6 hours).

Total: 30 semester hours
Music: Conducting

Required Courses I (6 hours)
Select one of the following:
MUS 781 - Advanced Choral Conducting 3-6(Spec)
MUS 782 - Advanced Instrumental Conducting 3-6(Spec)

Required Courses II (2-3 hours)
Select one of the following:
MUS 512 - Choral Literature II (Since 1750) 2(2-0)
MUS 784 - Instrumental Rehearsal Techniques 3(3-0)

Required Course III (4 hours)
MUS 799 - Recital 4(Spec)

Electives (5-6 hours)
Participation in conducted or coached ensembles is recommended.

Total: 30 semester hours

Music: Music Education

Required Courses (6 hours)
MUS 731 - Curriculum Design in Music Education 3(3-0)
MUS 732 - History and Philosophy of Music Education 3(3-0)

Electives (12 hours)
12 hours selected in consultation with an advisor:
• 6 hours of Pedagogy Electives
• 6 hours of Music Electives (Participation in conducted or coached ensembles is recommended.)

Total: 30 semester hours

Music: Performance

Required Courses (13 hours)
An Applied Major Area (8 hours) plus:
MUS 780 - Performance Ensembles 1-2(Spec)
MUS 799 - Recital 4(Spec)

Note: 1 hour of MUS 780.

Electives (5 hours)
Music electives selected in consultation with an advisor.

Total: 30 semester hours

Music: Piano Pedagogy

Required Courses (24 hours)
MUS 607 - Basic Skills in Music Technology I 2(2-0)
MUS 631 - Advanced Piano Pedagogy I 3(3-0)
MUS 632 - Advanced Piano Pedagogy II 3(3-0)
MUS 633 - Class Piano Pedagogy 3(3-0)
MUS 634 - Internship in Piano Pedagogy 3(2-2)
MUS 752 - Piano 1-8(Spec)
MUS 799 - Recital 4(Spec)

Note: 6 hours of MUS 752.

Total: 36 semester hours

Course Descriptions: MUS

MUS 502 Form Analysis 2(2-0)
Study and analysis of the melodic forms in music and the commonly used harmonization as found in the works of the early romantics. Prerequisite: MUS 201.

MUS 503 Advanced Counterpoint 2(2-0)
Prerequisite: MUS 303.

MUS 504 Contemporary Compositional Techniques 2(2-0)
Compositional techniques from 1945 to the present, with particular attention paid to electronic music. Prerequisite: MUS 202, MUS 309.

MUS 505 Seminar In Analysis: Twentieth-Century Music 2-4(Spec)

MUS 506 Advanced Scoring 2(2-0)
Scoring for large ensembles. Prerequisites: MUS 304.

MUS 511 Choral Literature I 2(2-0)
Detailed study of small choral forms of the Renaissance and Baroque eras.

MUS 512 Choral Literature II (Since 1750) 2(2-0)
Representative small choral forms suitable for secondary school. Special attention to style characteristics which contribute to interpretive techniques.

MUS 514 Survey of Keyboard Literature 2(2-0)
Keyboard music from the sixteenth century to and including Beethoven.

MUS 516 Survey of Keyboard Literature II 2(2-0)
Piano music from Mendelssohn and Schubert to the present.

MUS 520 Jazz Arranging 3(3-0)
The study of basic arranging techniques used in writing music for small and large jazz ensembles. Prerequisites: admission to music candidacy or admission to the graduate music program.

MUS 521 Advanced Jazz Arranging 3(3-0)
The study of modern advanced arranging techniques used in writing music for large jazz ensembles. Prerequisite: admission to music candidacy or admission to the graduate music program; MUS 520.

MUS 531 Orff Techniques 2(1-2)
Philosophy, techniques, and pedagogy of Orff’s Music for Children. Prerequisites: MUS 131, MUS 132 or MUS 101; basic knowledge of music fundamentals.

MUS 532 Dalcroze Eurythmics 2(1-2)
Introduction to the music teaching concepts of Jaques-Dalcroze. Prerequisites: MUS 101, MUS 131, or MUS 132, or by permission of instructor.

MUS 533 Kodaly Pedagogy 2(1-2)
Theory, materials, and pedagogy of the Kodaly method of music education. Prerequisite: MUS 435 or MUS 333.

MUS 534 Music for Pre-School Children 2(2-0)
Musical activities for the preschool child designed to nurture musical potential and promote musical awareness.

MUS 535 Workshop in Music Education 1-4(Spec)

MUS 539 String Pedagogy Practicum 2(2-0)
Firsthand experience in teaching beginning violin students using the latest and most successful methods. Prerequisite: MUS 246.
MUS 540  Organ Pedagogy Practicum 2(2-0)  
Supervised experience in teaching the organ. Prerequisite: 4 semesters of private organ study.

MUS 552  Jazz Piano 1-8(Spec)  
Individual instruction in jazz piano performance. May be taken more than once, for 1-2 credits per enrollment, not to exceed eight credits. Prerequisites: Admission to music candidacy or admission to the graduate music program and permission of instructor.

MUS 581  Jazz Improvisation Laboratory 2(1-2)  
Prerequisite: permission of instructor.

MUS 597  Special Studies 1-6(Spec)

MUS 607  Basic Skills in Music Technology I 2(2-0)  
Develop skills and strategies for using electronic instruments with notation and sequencing software in music teaching.

MUS 608  Basic Skills in Music Technology II 2(2-0)  
Develop skills and methods using instructional software, digital media and the Internet in the music classroom.

MUS 619  Continuing Registration for Final Research Project 1(1-0)  
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

MUS 620  Jazz Harmony and Analysis 3(3-0)  
Advanced study of jazz harmony focusing on tonal and modal music. Prerequisite: graduate status.

MUS 621  Jazz Improvisation Pedagogy and Practicum 2(1-2)  
Develop the skills, methods, and materials necessary to teach jazz improvisation through observation, research and teaching. Prerequisites: graduate status, MUS 620.

MUS 622  Modern Jazz History 3(3-0)  
A course in modern jazz history designed for graduate music students that covers important styles and figures in the jazz genre since 1940. Prerequisite: admission to the graduate music program.

MUS 624  Jazz Pedagogy 3(2-2)  
A course designed to enhance skills in the teaching of jazz as a performing art and as a historically significant cultural event. Prerequisite: admission to the graduate music program or the permission of the instructor.

MUS 631  Advanced Piano Pedagogy I 3(3-0)  
Introduction to elementary through early intermediate piano teaching methods, materials, and technology for the independent piano instructor.

MUS 632  Advanced Piano Pedagogy II 3(3-0)  
Intermediate to early advanced piano teaching methods and materials. Prerequisites: MUS 631.

MUS 633  Class Piano Pedagogy 3(3-0)  
Materials and teaching techniques for group piano teaching at the pre-college and college levels. Prerequisites: MUS 631 and MUS 632.

MUS 634  Internship in Piano Pedagogy 3(2-2)  
Supervised experience in teaching piano at the pre-college and college levels in both the private and group setting. Prerequisites: MUS 631, MUS 632, MUS 633.

MUS 701  Advanced Composition 2-6(Spec)  
Creative work in handling the elements of rhythm, melody, harmony and tone color. Prerequisite: MUS 502.

MUS 707  Analytical Styles I: Medieval - Classical 3(3-0)  
Detailed analytical study of selected representative works from the Medieval era through the Classical period. Prerequisite: admission to the graduate program.

MUS 708  Analytical Styles II: 19-20th Century 3(3-0)  
Detailed analytical study of selected representative works from the Romantic period through the twentieth century. Prerequisite: admission to the graduate program.

MUS 711  Choral Literature from 1600 to 1750 3(3-0)

MUS 713  The Development of Jazz Through 1945 3(3-0)  
Early jazz history taught with emphasis on musicians, cultural trends, music technology, the evolution of jazz styles, and related art forms. Prerequisite: admission to graduate program (music major status not required).

MUS 714  Wind Band Literature 3(3-0)  
A survey of wind band literature and its evolution from 1500 to present. Prerequisites: MUS 211, MUS 212, MUS 412.

MUS 715  Rock 'n' Roll Seminar 3(3-0)  
Traces the roots of rock, surveys the various types of rock, and provides in-depth analysis of the music. Prerequisite: admission to graduate program (music major status not required).

MUS 717  Historical Topics I: Medieval - Classical 3(3-0)  
Examination of selected topics in the history of music from the Medieval era through the Classical period. Prerequisite: admission to the graduate program.

MUS 718  Historical Topics II: 19-20th Century 3(3-0)  
Examination of selected topics in the history of music from the Romantic period through the twentieth century. Prerequisite: admission to the graduate program.

MUS 719  Seminar in World Music 3(3-0)  
A survey of selected musical cultures from around the world, with an emphasis upon the study of music in its cultural context. Prerequisite: admission to graduate program - music major not required.

MUS 731  Curriculum Design in Music Education 3(3-0)  
Examination of contemporary practices and methods for developing appropriate curricula for K-12 music programs. Prerequisites: Graduate Status.

MUS 732  History and Philosophy of Music Education 3(3-0)  
Examines the history of music education in the United States and philosophical bases for teaching music. Provides a rationale for a comprehensive music education program. Prerequisites: Graduate Status.

MUS 733  Woodwind Pedagogy 3(3-0)  
Advanced study of pedagogical methodologies and materials for woodwind instruments. Prerequisite: MUS 335.

MUS 734  Brass Pedagogy 3(3-0)  
Advanced study of pedagogical methodologies and materials for brass instruments. Prerequisite: MUS 335.

MUS 735  Percussion Pedagogy 3(3-0)  
Advanced study of pedagogical methodologies and materials for percussion instruments. Prerequisite: MUS 335.
MUS 736  String Pedagogy 3(3-0)
Advanced study of pedagogical methodologies and materials for string instruments. Prerequisite: MUS 335.

MUS 737  Pedagogy and Literature for Young Voices 3(2-2)
Intense study of problems with adolescent voices and associated literature. Prerequisite: MUS 338.

MUS 750  Voice 1-8(Spec)
Audition required.

MUS 751  Organ 1-8(Spec)

MUS 752  Piano 1-8(Spec)

MUS 753  Violin and Viola 1-8(Spec)

MUS 755  Violoncello 1-8(Spec)

MUS 757  String Bass 1-8(Spec)
Individualized program of applied studio instruction in string bass performance focusing on technique, musicianship, literature, and performance practice at the professional artist level.

MUS 760  Harpsichord 1-8(Spec)
Study of solo harpsichord repertoire, continuo and ensemble playing, and figured bass. Prerequisite: acceptance as a graduate organ or piano student.

MUS 761  Flute 1-8(Spec)

MUS 763  Oboe 1-8(Spec)

MUS 765  Clarinet 1-8(Spec)

MUS 767  Bassoon 1-8(Spec)

MUS 769  Saxophone 1-8(Spec)

MUS 771  Cornet or Trumpet 1-8(Spec)

MUS 773  French Horn 1-8(Spec)

MUS 775  Trombone 1-8(Spec)

MUS 777  Euphonium 1-8(Spec)

MUS 778  Tuba 1-8(Spec)

MUS 779  Percussion 1-8(Spec)

MUS 780  Performance Ensembles 1-2(Spec)
CR/NC only. Prerequisite: permission of instructor.

MUS 781  Advanced Choral Conducting 3-6(Spec)
Advanced rehearsal and conducting techniques for the choral director. Prerequisite: MUS 381.

MUS 782  Advanced Instrumental Conducting 3-6(Spec)
Advanced score preparation and conducting techniques for instrumental music educators and conductors. Prerequisite: MUS 382.

MUS 784  Instrumental Rehearsal Techniques 3(3-0)
Pedagogical techniques for the musical preparation of instrumental ensembles. Prerequisite: MUS 381.

MUS 791  Introduction to Music Research 3(3-0)
An overview of scholarly research techniques in music. Prerequisite: admission to graduate program.

MUS 793  Research Project in Music Education 2(Spec)
Prerequisites: MUS 731 and EDU 660.

MUS 794  Evaluation of Musical Behavior 3(3-0)
Analysis in psychological attributes of music; analysis in teacher-made and standardized music tests; interpreting research findings in music; planning and conducting experimental research in music.

MUS 795  Psychology of Music Teaching and Learning 3(3-0)
Psychological foundations of music instruction, perception, response, and learning. Prerequisites: Graduate Status. Recommended: MUS 791.

MUS 797  Special Studies 1-6(Spec)
Appropriate title to be listed when offered.

MUS 798  Thesis 1-6(Spec)
CR/NC only.

MUS 799  Recital 4(Spec)
Prerequisite: permission of applied music instructor.

Applied Music (Private Instruction)

Students may earn credit for private instruction in the various areas of applied music as follows:

<table>
<thead>
<tr>
<th>Curriculum In Each Area</th>
<th>Hours Credit Applicable Toward Graduation</th>
<th>Maximum Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Music</td>
<td>1-8</td>
<td>8</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>1-2</td>
<td>4</td>
</tr>
<tr>
<td>(Music concentration)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is a special fee of $40.00 for one-credit-hour lessons and $75.00 for two- and four-credit-hour lessons. This fee is in addition to the regular tuition fees.
Course Descriptions: REL
REL 501 Seminar in the Study of Religion 3(3-0)
The study of religion as an academic discipline, including a selection of leading scholarly approaches to the investigation of religious phenomena. Prerequisites: 9 credit hours in Religion.
REL 505 Research Seminar 3(3-0)
A seminar supporting research projects in religion, primarily intended for seniors who are religion majors. Prerequisite: for undergraduates, a signed Religion major with completion of REL 501. 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.

Courses in religion may be used as cognates or electives on various departmental graduate degree programs.
Department of Physical Education and Sport (PES, ATR)

College of Education and Human Services

James E. Hornak, Chairperson
SAC 194, (989) 774-6658
E-mail: James.E.Hornak@cmich.edu

H. Ray Allen, Ph.D., Pedagogy
Gary W. Arbogast, Ph.D., Pedagogy and Curriculum
Thomas A. Cappaert, Ph.D., Exercise Science, Research
Judy P. Chandler, Ph.D., Special Physical Education
Janet S. Helfrich, Ed.D., Motor Learning, Sport Psychology, Elementary Physical Education, Coaching
James E. Hornak, Ed.D., Statistics, Motor Learning
Marcia J. Mackey, Ph.D., Sport Management
Vincent E. Mumford, Ed.D., Sport Management
Tracy W. Olrich, Ph.D., Motor Learning, Psychology of Sport
Barbara K. Peddie, Ph.D., Pedagogy
René R. Shingles, Ph.D., Psychosocial Aspects of Sport and Physical Education

The Department of Physical Education and Sport offers a Master of Arts in Physical Education with concentrations in teaching, athletic administration, exercise science, and coaching and a Master of Arts in Sport Administration.

Master of Arts (M.A.) in Physical Education

Minimum Totals for Graduation: 30 hours

Students pursuing this degree must complete a minimum of 30 credit hours.

Each option includes a required core of courses, specialization courses, and elective and cognate courses. The student must complete a required core. Credit hours in the core vary depending on whether a thesis (6 credits) or independent study (3 credits) is selected.

The Athletic Administration Option is designed to prepare the student for a career in collegiate, high school, or community sport administration through theoretical and practical experiences. Practicum experiences and an off-campus internship with a local education agency, university or a sport organization of the student's choice supplement student coursework.

The Coaching Option is designed to prepare the student for a career in coaching athletics at the interscholastic or intercollegiate levels. The program is flexible and designed to provide both theoretical and practical experience.

The Teaching Option is designed to further the preparation of the student interested in teaching physical education. Primary emphasis is placed on preparing the student to analyze and implement the teaching and curricular process in physical education.

The Exercise Science Option is designed to prepare students to be exercise specialists or provide a foundation for additional graduate study in both. The study of the physiology of work and exercise is the main emphasis of this program.

Admission Requirements, Retention & Termination Standards

To be considered for admission to the Master of Arts in Physical Education degree program, a student must meet the general requirements for admission to the CMU College of Graduate Studies. In addition, applicants for the MA in Physical Education must submit the official GRE results and a resume along with all other application materials. Based upon the undergraduate GPA, GRE results, resume, and professional experience, the candidate may be accepted as a regular or conditional student. For regular admission, the minimum undergraduate GPA must be 3.0 or higher on a 4.0 scale.

To be assured consideration for admittance, all application materials must be received by the following deadlines: April 1 for fall semester, August 1 for spring semester, and February 1 for summer sessions.

Athletic Administration: To be admitted to this program, prior work in physical education is recommended but is not required.

Coaching: To be admitted to this program, prior work in physical education is recommended but is not required.

Teaching: To be admitted to this program, a student must present 20 or more hours of physical education or related courses, of which 15 hours must be professional preparation physical education courses.

Exercise Science: To be admitted to this program, the student must present 20 or more hours of exercise science, physical education, or health-related courses.

Degree Requirements

Core Courses (12-15 hours)

Note: These core courses are required for students in Athletic Administration, Coaching, or Teaching.

Core Courses I (9 hours)
PES 610: Philosophy of Physical Education and Sport 3(3-0)
PES 670/HSC 670: Research Methods for Physical Education and Sport, Health and Recreation 3(3-0)
PES 672: Statistics for Physical Education and Sport, Health and Recreation 3(3-0)

Core Courses II (3-6 hours)
Select either Plan A: Thesis or Plan B: Independent Study from the following:
PES 691: Independent Study 3(Spec)
PES 698: Thesis 1-6(Spec)

Concentration

Select one of the following:

Option I - Physical Education: Teaching

Core Courses (12-15) (see above)

Required Courses (6 hours)
PES 607 - Physical Education Curriculum Analysis 3(3-0)
PES 615 - Analysis of Teaching in Physical Education 3(3-0)

Electives (9-12 hours)
Select electives in consultation with an advisor

Total: 30 semester hours

Note: See additional requirements at the end of this section.
**Option 2 - Physical Education: Athletic Administration**

**Core Courses (12-15) (see above)**

**Required Courses (12 hours)**
- PES 603 - Administration of Sport and Physical Education 3(3-0)
- PES 640 - Sport and the Law 3(3-0)
- PES 650 - Sport Marketing 3(3-0)
- PES 699 - Internship in Sport Administration 3-6(Spec)

**Electives (3 - 6 hours)**
- Select electives in consultation with an advisor.

**Total: 30 semester hours**

**Note:** See additional requirements at the end of this section.

**Option 3 - Physical Education: Exercise Science**

**Required Courses I (13 hours)**
- BIO 590 - Cardiovascular Physiology 3(3-0)
- PES 606 - Motor Learning and Human Performance 3(3-0)
- PES 631/HSC 631 - Physiology of Exercise 4(3-2)
- PES 670/HSC 670 - Research Methods for Physical Education and Sport, Health and Recreation 3(3-0)

**Required Courses II (3 hours)**
- Select one of the following:
  - HSC 544 - Biostatistics 3(2-1)
  - PES 672 - Statistics for Physical Education and Sport, Health and Recreation 3(3-0)

**Required Courses III (3 - 6 hours)**
- Select either Plan A: Thesis or Plan B: Independent Study from the following:
  - PES 691 - Independent Study 3(Spec)
  - PES 698 - Thesis 1-6(Spec)

**Electives (8-11 hours)**
- Select hours in consultation with an advisor.

**Total: 30 semester hours**

**Option 4 - Physical Education: Coaching**

**Core Courses (12-15) (see above)**

**Required Courses (9 hours)**
- Select from the following:
  - PES 560 - Principles and Foundations of Coaching 3(3-0)
  - PES 606 - Motor Learning and Human Performance 3(3-0)
  - PES 611 - Psychology of Sport 3(3-0)
  - PES 620 - Sport - An Interdisciplinary Study 3(3-0)

**Electives (6-9 hours)**
- Select hours in consultation with an advisor.

**Total: 30 semester hours**

**Note:** See additional requirements at the end of this section.

**Additional Requirements:**

1. An oral examination in the field of specialization may be given at the discretion of the department. The department reserves the right to administer a comprehensive examination after the completion of approximately 20 hours of course work as a tool to secure information to be used in counseling the student toward the completion of the selected program.

2. Students must consult with an advisor prior to taking a 500-level course.

3. Students must present 20 or more semester hours of classes at or above 600-level for this degree.

4. A maximum of six hours of credit in practicum, field study, and internship courses may be applied toward the completion of this degree program.

5. Individualized graduate programs for specific areas of interest such as Special Physical Education may be arranged in consultation with an advisor and with the Graduate Coordinator's approval.

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**Master of Arts (M.A.) in Sport Administration**

**Minimum Totals for Graduation: 36 hours**

This is a 36-hour graduate program designed specifically for full-time on-campus students to meet the National Association for Sport and Physical Education-North American Society for Sport Management standards for accreditation.

The master’s degree in sport administration is designed to prepare the student for a career in administration in a sport-related field. The program is flexible and designed to provide both theoretical and practical experience that will meet the needs and interests of the individual.

Each student’s elective and cognate courses shall be selected in consultation with the faculty advisor. Special emphasis will be toward strengthening areas not included in the student’s undergraduate program. Students who lack the prerequisites for graduate courses will be expected to make up these deficiencies in addition to the normally prescribed coursework for the degree.

**Admission Requirements, Retention & Termination Standards**

**Admission**

To be considered for admission to the Master of Arts in Sport Administration degree program, a student must meet the general requirements for admission to the CMU College of Graduate Studies. In addition, the applicants for the MA in Sport Administration must submit the official GRE results, three letters of recommendation, and a resume, along with all other application materials. Based upon the undergraduate GPA, GRE results, resume, professional experience, and the three letters of recommendation, the candidate may be accepted for regular or conditional admission. For regular admission, the minimum undergraduate GPA must be 3.0 or higher on a 4.0 scale. To be assured consideration for admission, all application materials must be received by the following deadlines: April 1 for fall semester, August 1 for spring semester, and February 1 for summer sessions.

**Program Requirements**

Students must consult with an advisor prior to taking a 500-level course.

**Degree Requirements**

**Required Courses (30-36 hours)**

**Required Courses I**
- PES 602 - Sport Management: Theory & Application 3(3-0)
- PES 603 - Administration of Sport and Physical Education 3(3-0)
- PES 625 - Facilities for Sport and Physical Education 3(3-0)
- PES 640 - Sport and the Law 3(3-0)
- PES 645 - Financial Management of Sport 3(3-0)
- PES 650 - Sport Marketing 3(3-0)
- PES 670/HSC 670 - Research Methods for Physical Education and Sport, Health and Recreation 3(3-0)
- PES 672 - Statistics for Physical Education and Sport, Health and Recreation 3(3-0)
**PES 699 - Internship in Sport Administration 3-6(Spec)**

**Required Courses II**

Select one of the following in consultation with an advisor:

- PES 691 - Independent Study 3(Spec)
- PES 698 - Thesis 1-6(Spec)

**Electives (0-6 hours)**

These courses will be selected from Educational Leadership, Communication, Management, Marketing, Physical Education and Sport, etc.

**Total: 36 semester hours**

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**Master of Science in Administration (M.S.A.)**

**Concentration in Sport Administration**

The Master of Science in Administration Program requires 36 Credit Hours of graduate study. The MSA program provides students with the fundamental principles required for successful sport administrative careers in the public, private, or nonprofit sectors.

The required core courses of the MSA program (15-21 Credit Hours) provide a comprehensive overview of organizational and human relationships and the administrative mechanisms through which to make sound analytical judgments and decisions.

The Sport Administration concentration (15-18 Credit Hours) provides specific skills required for administrators of college, professional, or commercial sport.

Please go to page 214 for core courses and concentrations or to www.grad.cmich.edu/msa/.

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**Course Descriptions: PES**

- **PES 508 Education on Sexual Aggression for School/Community 3(Spec)**
  
  This course addresses the realities of sexual aggression, and how schools, corporations, and communities can educate their respective populations on these topics. Identical to HSC 508. Credit may not be earned in more than one of these courses. Recommended: PES 143.

- **PES 525 International Travel Course in Sport 3(3-0)**
  
  A study abroad course that investigates the components of sport management from an international perspective, including historical and cultural influences on sport. Prerequisite: Permission of instructor.

- **PES 550 Sport Fundraising 3(3-0)**
  
  Provides theoretical and practical applications of fundraising in the sport industry. Prerequisites: Minimum 86 credit hours (senior status); or graduate status.

- **PES 560 Principles and Foundations of Coaching 3(3-0)**
  
  Practical and relevant information that is appropriate for interscholastic coaches. Includes eligibility for Coaches Advancement Program (C.A.P.) certification. Prerequisites: 56 hours of course credit.

- **PES 564 Sport Governance: Ethics, Morals, and Values 3(3-0)**
  
  Investigation of how ethics, morals, and values influence the interpretation of laws and adherence to rules governing sport competition by athletes, coaches, and administrators. Prerequisite: Minimum 86 credits (senior status); or graduate status.

- **PES 570 Advanced Coaching in Basketball 2(2-0)**
  
  Study of most recent basketball trends and new techniques, methods, and philosophies in the coaching of basketball.

- **PES 572 Advanced Coaching in Baseball 2(2-0)**
  
  Coaching philosophy, new techniques and drills, practice organization, coaching duties, and strategy. Prerequisite: PES 372.

- **PES 574 Advanced Coaching of Football 2(2-0)**
  
  Study of recent changes and new trends in coaching of football.

- **PES 592 Independent Reading 1(Spec)**
  
  Exploration of one or more aspects of the field of physical education by individual study. Prerequisite: Permission of the department chairperson and instructor required.

- **PES 595 Issues in Physical Education and Sport 1-6(Spec)**
  
  Investigation of selective major issues in physical education and sport. Prerequisite: permission of the instructor.

- **PES 602 Sport Management: Theory & Application 3(3-0)**
  
  An introduction to the theoretical basis of sport management combined with supervised experiences in sport event management. Credit may not be earned in both PES 602 and PES 690. Prerequisites: Graduate student accepted in the MA in Physical Education Option 2: Athletic Administration, MA in Sport Administration, or MSA - Sport Administration concentration.

- **PES 603 Administration of Sport and Physical Education 3(3-0)**
  
  A study of administrative techniques and administrative problems related to sport and physical education.

- **PES 606 Motor Learning and Human Performance 3(3-0)**
  
  Factors that make for successful motor performance, including learning theory, distribution and type of practice, developmental factors, and psychological factors.

- **PES 607 Physical Education Curriculum Analysis 3(3-0)**
  
  Students will be provided a framework for improving and redesigning K-12 programs. Planning, implementing, improving, and redesigning curricula will be emphasized. Prerequisite: PES 416.

- **PES 610 Philosophy of Physical Education and Sport 3(3-0)**
  
  Philosophical foundations underlying physical education and sport with particular emphasis upon the development of a consistent and rational professional philosophy.

- **PES 611 Psychology of Sport 3(3-0)**
  
  The psychological dimension in sport as it pertains to the athlete, the coach, and the spectator; the latest psychological findings dealing with the relationship between individuals and sport.

- **PES 615 Analysis of Teaching in Physical Education 3(3-0)**
  
  A comprehensive review and analysis of teaching functions and processes with a particular emphasis on how to improve the instructional behaviors of physical educators. Prerequisite: PES 203 or PES 303 or PES 315.

- **PES 619 Continuing Registration for Final Research Project 1(1-0)**
  
  An non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

- **PES 620 Sport - An Interdisciplinary Study 3(3-0)**
  
  An interdisciplinary study in sport in America through an examination of the historical, sociological, and philosophical principles of play, sport, games, and athletics.
PES 625  Facilities for Sport and Physical Education 3(3-0)
Basic planning principles from which guidelines to planning facilities can be established. Visitation to various state facilities.

PES 631  Physiology of Exercise 4(3-2)
Physiological basis of human movement and its application to physical training and performance. Identical to HSC 631. Credit may not be earned in more than one of these courses.

PES 640  Sport and the Law 3(3-0)
Provides the entering professional with a practical and theoretical application of U.S. law to the sport industry. Prerequisite: PES 670 or HSC 670.

PES 645  Financial Management of Sport 3(3-0)
Application of the fundamental concepts and theories of finance to the field of sport management.

PES 650  Sport Marketing 3(3-0)
Provides a practical and theoretical application of marketing science to all realms of the sport industry. It is also a basic course in a sequence of core courses taken to complete an MSA degree with a concentration in Sport Administration.

PES 660  Biomechanics 3(3-0)
Study of biological and mechanical aspects of biomechanics including the techniques of visual and cinematographic analysis.

PES 670  Research Methods for Physical Education and Sport, Health and Recreation 3(3-0)
Basic research methods and techniques essential in performing and interpreting scientific studies. Recommended: 6 hours of graduate course work completed prior to enrollment. Identical to HSC 670. Credit may not be earned in more than one of these courses.

PES 672  Statistics for Physical Education and Sport, Health and Recreation 3(3-0)
Basic descriptive and inferential statistical concepts and techniques commonly encountered in professional literature and essential to teaching and research.

PES 690  Practicum 1-4(Spec)
To give the student professional experience of a supervisory or administrative nature in a public school, educational institution, or community agency. Prerequisite: Master's degree candidates only. CR/NC only.

PES 691  Independent Study 3(Spec)
A topic is selected, researched and a scholarly paper prepared in consultation with an advisor. CR/NC only. Prerequisite: PES 670.

Course Descriptions: ATR

ATR 582  Special Topics 1-3(Spec)
Exploration of special topics in the field of Athletic Training/Sports Medicine and other health related areas. May be repeated to a maximum of 3 hours. Identical to HPS 582. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: ATR 430 and permission of instructor.

PES 698  Thesis 1-6(Spec)
The student develops and completes a research study in a specific area of physical education. CR/NC only. Prerequisite: PES 670 or PES 672. 2 hours may be taken concurrently with PES 670.

PES 699  Sport Management Internship 3-6(Spec)
A capstone experience applying theoretical and practical knowledge in a sport management setting. Prerequisite: Completion of all required and elective courses, except PES 691/698; 3.0 overall G.P.A. or higher; significant progress toward Plan B paper or thesis; and permission of the academic advisor and the sport management internship supervisor.

PES 703  Advanced Independent Reading 1-2(Spec)
An in-depth, scholarly study of a selected phase of physical education or sport through individualized reading.

PES 791  Independent Study 2(Spec)
A topic is selected, researched, and a scholarly paper prepared, in consultation with an advisor. CR/NC only. Prerequisite: PES 670.

ATR 582  Special Topics 1-3(Spec)
Exploration of special topics in the field of Athletic Training/Sports Medicine and other health related areas. May be repeated to a maximum of 3 hours. Identical to HPS 582. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: ATR 430 and permission of instructor.
Master of Science (M.S.) in Physics

Minimum Totals for Graduation: 30 hours

The requirements for the M.S. in physics are based on a core of twelve semester hours in advanced mechanics, electricity and magnetism, and quantum mechanics. Three hours of seminar are required, and six hours of credit are given for the thesis. In consultation with an advisor the student selects at least nine additional hours in areas of specific value to the student. The program is normally completed in two years. There is no qualifying examination, and no foreign language is required.

Admission Requirements, Retention & Termination Standards

For admission to the physics graduate program, a bachelor's degree in physics is required with a minimum grade point average in physics of 2.7. An applicant with minor deficiencies may be admitted with the understanding that course work in addition to the usual 30 hours may be required. Students from non-English speaking countries are required to demonstrate proficiency in English via the TOEFL exam. Applicants for graduate assistantships are strongly urged to submit GRE General and Physics scores. A maximum of 24 credits earned during non-degree status may be applied toward a graduate degree in Physics.

Degree Requirements

Required Core Courses (21 hours)

PHY 624 - Advanced Mechanics 3(3-0)
PHY 634 - Advanced Electricity and Magnetism 3(3-0)
PHY 643 - Quantum Mechanics I 3(3-0)
PHY 644 - Quantum Mechanics II 3(3-0)
PHY 655 - Seminar: Contemporary Physics 1-4(Spec)
PHY 798 - Thesis 1-6(Spec)

Cognate Courses (0-6 hours)

Cognate courses may be chosen to meet the individual needs of the student, but must be in a discipline closely related to the area of specialization.

Electives (3-9 hours)

AST 562 · Observational Astronomy 4(3-2)
AST 563 · Astrophysics 3(3-0)

Or any physics courses at the 500 level or above.

Total: 30 semester hours

Ph.D. in the Science of Advanced Materials

This is an interdisciplinary degree. Please see the index for the page number.

Course Descriptions: PHY

PHY 505 Teaching Chemistry and Physics in the Secondary School 3(3-0)

Course surveys materials for the teaching of secondary chemistry/physics. For students on teaching curricula, the course must be completed prior to student teaching. Identical to CHM 505. Credit may not be earned in more than one of these courses. Prerequisites: junior standing; CHM 132 or CHM 161; PHY 131 or PHY 146.

PHY 507 Field Experience in Teaching Chemistry/Physics 1(Spec)

Supervised experience in high school chemistry and/or physics classes. Experience will include observation, participation in instruction, and critical analysis of the experience. Identical to CHM 507. Credit may not be earned in more than one of these courses. CR/NC only. Corequisites: CHM/PHY 505.
PHY 517  Computational Physics 3(3-0)
Introduction to standard numerical techniques applied to problems in physics, including numerical differentiation and integration, systems of differential equations, eigenvalues and eigenvectors, and Monte-Carlo simulations. Prerequisites: PHY 312, PHY 322, and PHY 332. Pre/Co-Requisite: PHY 442. Recommended: A basic knowledge of a programming language such as FORTRAN.

PHY 533  Electromagnetic Waves 3(3-0)
Maxwell's equations and boundary value problems in electrostatics. Production and propagation of electromagnetic radiation. Prerequisite: PHY 332.

PHY 552  Nuclear Physics 3(3-0)
Radioactive transformations, detection of radiation, methods of producing high-speed particles, nuclear structure, fission, cosmic radiation and applications of radioactivity. Prerequisite: PHY 442.

PHY 554  Optics 3(3-0)
Geometrical and physical optics, electromagnetic theory of light, interference and diffraction from standpoint of Huygens' principle, Fourier formalism, polarized light, principles and applications of lasers. Prerequisites: PHY 442 and PHY 332.

PHY 556  Solid State Physics 3(3-0)
Atomic, molecular and crystal structure, energy levels of electronic structures, and binding energies in molecules and solids. Prerequisites: PHY 442 Co-requisites: PHY 450.

PHY 578  Experimental Physics 2-4(Spec)
Selected experiments utilizing the techniques of modern experimental physics. May be retaken for up to 4 hours of credit. Prerequisite: PHY 277.

PHY 580  Special Topics 1-9(Spec)
Topics not ordinarily covered in regular courses. Prerequisite: permission of instructor.

PHY 614  Methods of Theoretical Physics 3(3-0)
Application of advanced mathematical techniques to physical theory. Prerequisite: PHY 313.

PHY 619  Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

PHY 624  Advanced Mechanics 3(3-0)
Special relativity, kinematics, and dynamics of rotational motion, coupled oscillations, canonical transformation, Hamilton-Jacobi theory, classical fields. Prerequisite: PHY 322.

PHY 634  Advanced Electricity and Magnetism 3(3-0)
Boundary value problems, time-varying fields and the initial value problem. Covariant description of electrodynamics and radiation by point charges. Prerequisite: PHY 332.

PHY 643  Quantum Mechanics I 3(3-0)
The scattering matrix formulation of quantum mechanics, symmetry groups in quantum mechanics, perturbation theory. Prerequisite: PHY 442.

PHY 644  Quantum Mechanics II 3(3-0)
Identical particles, the self-consistent field, theory of multiplets, semiclassical theory of radiation, atomic collisions. Prerequisite: PHY 643.

PHY 685  Seminar: Contemporary Physics 1-4(Spec)
Discussion of recent research in various subfields of physics. Emphasis on oral presentation and literature searches. Offered in 1 hour blocks, but may be retaken three times. Prerequisite: graduate standing in physics.
Department of Political Science (PSC)
College of Humanities and Social & Behavioral Sciences

Rick Kurtz, Chairperson
247 Anspach Hall, (989) 774-3442
Joyce A. Baugh, Ph.D., Constitutional Law
Edward Clayton, Ph.D., Normative Political Theory
Moataz A. Fattah, Ph.D., Comparative Politics, Middle East
Thomas Greitens, Ph.D., Political Administration and Public Policy
James P. Hill, Ph.D., Public Policy
David K. Jesuit, Ph.D., Comparative Politics, Western Europe
Sterling Johnson, Ph.D., American Foreign Policy
Rick Kurtz, Ph.D., Public Administration
Christopher Owens, Ph.D., American Political Parties, Political Behavior
Won Paik, Ph.D., International Relations
Orlando Perez, Ph.D., Comparative Politics, Latin America
Delbert Ringquist, Ph.D., Public Policy, Leadership and The Presidency
Vidu Soni, Ph.D., Human Resource Management
J. Cherie Strachan, Ph.D., Political Participation, Interest Groups, Political Behavior
Lawrence Sych, Ph.D., State and Local Government and Public Administration

The Department of Political Science offers a Master of Arts degree in Political Science, a Master of Public Administration degree, and courses contributing to several other graduate programs at the university, including a concentration in Public Administration in the Master of Science in Administration. The department also offers courses which fulfill the requirements for the Political Science Concentration in Option 1. Teaching in the Senior High School in the Master of Arts in Secondary Education Unit in this Bulletin.

The department's graduate level internship program provides working knowledge of and experience in public and non-profit agencies.

The specific requirements for the Master of Arts in Political Science and the Master of Public Administration are stated in separate sections below.

Master of Arts (M.A.) in Political Science

Minimum Totals for Graduation: 30 hours

Mission Statement
The Master of Arts (MA) program in Political Science at Central Michigan University is designed for students who are planning to pursue further graduate education and for students who, for reasons of career enhancement or of specialized training for employment, are seeking a Master's degree as their ultimate goal. The Department provides students with rigorous academic training in the discipline and offers students the option to specialize either in the study of American Politics or Comparative Politics and International Relations. This preparation enables CMU graduates to be competitive when applying to Ph.D. programs, law schools or other graduate programs. In addition, CMU MA graduates will be well-prepared for a wide range of other careers, including federal, state and local government, the Foreign Service, teaching at the community college or high school level, and careers in the private sector.

Accordingly, the Master of Arts (MA) program in Political Science at Central Michigan University has the following goals:

- educating students about the diversity of models, approaches, and intellectual traditions within Political Science;
- training students in the appropriate research skills necessary to complete their research objectives;
- preparing students for entrance into Ph.D. programs in Political Science, entrance into law schools, entrance into public service, or for upgrading their credentials for careers in teaching, including primary and secondary education;
- developing students' ability to critically analyze and evaluate scholarly work;
- fostering students' ability to think critically and effectively express their thoughts in written and oral communication;
- encouraging and mentoring students' professional growth through research and presentations at professional conferences;
- providing opportunities to network within the field of study through internships, honorary organizations and on-campus events.

Admission Requirements, Retention & Termination Standards

Admission
1. An undergraduate grade point average of at least 2.8 (on a 4.0 point scale).
2. A minimum of 18 undergraduate hours in the social sciences of which at least 6 hours are in political science.
3. An essay (two or three pages, double-spaced) including a discussion of the applicant's professional and/or educational goals and how completion of the program will facilitate his or her achievement of those goals. This essay replaces the written statement requested as part of the application to the College of Graduate Studies.
4. Two letters of recommendation from college faculty or other professionals who are familiar with the applicant's abilities and can attest to the applicant's potential to succeed in the program.
5. Evidence of successful completion of an undergraduate statistics or research methods course.
6. If the applicant is an international student for whom English is not the first language, a score of 213 on the computer-based (or 550 on the written-based) Test of English as a Foreign Language (TOEFL).
7. Per university policy, conditional admission may be considered for applicants with backgrounds or grade point averages that do not meet these requirements. Courses taken to meet these requirements may not be counted toward graduate degree requirements. Regular admission status should be requested upon completion of all conditional requirements.
8. Up to 9 semester hours of graduate credit may be transferred from another institution with approval of the advisor and the Dean of the College of Graduate Studies.

Program Requirements
A student must complete a minimum of 30 hours according to the plan of study below.

At least 15 of the hours presented for the degree must be in courses at or above the 600 level.

(continued)
The student must complete the required core courses (12 hours); either the Comparative/International Concentration or the American Concentration (12 hours), and either the Plan A Thesis (6 hours) or the Plan B non-thesis option (6 additional hours of course work).

**Degree Requirements**

**Required Courses (12 hours)**
- PSC 514 - American Public Policy Making 3(3-0)
- PSC 740 - Seminar in Comparative Politics 3(3-0)
- PSC 770 - Seminar in Political Theory 3-6(Spec)
- PSC 780 - Research in Public Administration in Political Science 3(3-0)

**Concentrations (12 hours)**
Select one of the following concentrations:

**American Concentration**

**Required Courses (6 hours)**
- PSC 520 - American National Government and Politics 3(3-0)
- PSC 566 - Intergovernmental Relations in the United States 3(3-0)

**Electives (6 hours)**
- Select electives appropriate to the field.
  
  **Note:** any 500 to 700 level course in political science, history, economics, or geography selected with advisor. Students are reminded that they must take 15 hours of classes at the 600 level and above in their total program. Advisors may make substitutions to the course requirements noted above to fit the student’s focus and the availability of course work.

**Comparative/International Concentration**

**Required Courses (6 hours)**
- PSC 515 - Comparative Public Policy 3(3-0)
- PSC 642 - Problems and Processes of International Development I 3(3-0)

**Additional Requirement (3 hours)**
- Select one of the following:
  - PSC 551 - Seminar in International Relations 3(3-0)
  - PSC 555 - International Law I 3(3-0)

**Electives (3 hours)**
- Select electives appropriate to the field.
  
  **Note:** any 500 to 700 level course in political science, history, economics, or geography selected with advisor. Students are reminded that they must take 15 hours of classes at the 600 level and above in their total program. Advisors may make substitutions to the course requirements noted above to fit the student’s focus and the availability of course work.

**Plan Option (6 hours)**
Select either Plan A or Plan B:

**Plan A - Thesis (6 hours)**

**Thesis and Oral Defense**
- Students selecting Plan A are required to complete a Thesis (6 hours).

In their final semester of graduate coursework, students must enroll in Thesis (PSC 798). At this time the student shall form a Master’s Thesis Committee, including a Chair and two additional members, and complete a significant original scholarly work. This Committee shall determine whether the completed thesis is satisfactory for permanent filing. In addition, students will be required to complete an oral defense of their thesis before the Committee.

**PSC 798 - Thesis 1-6(Spec)**

**Plan B - Non-Thesis Option (6 hours)**

**Two papers and oral defense:** Students completing the Plan B are required to take 6 additional hours of coursework and present two seminar papers as evidence of scholarly achievement.

Although students planning to continue their studies in pursuit of a Ph.D. in Political Science are strongly advised to pursue the Plan A option, the Department also offers a Plan B option for those students who expect the M.A. to be their terminal degree. The Plan B option requires students to 1) complete 6 additional hours of graduate coursework (in lieu of 6 hours of Thesis Writing); and 2) submit two research papers as evidence of scholarship. These papers must be prepared in connection with a seminar, an independent research course, or a graduate-level course in the Department of Political Science.

Accordingly, before a student’s final semester, the student shall form a Plan B Paper Committee, including a Chair and two additional members. This Committee shall determine whether the submitted papers, normally after revisions, are satisfactory for permanent filing. In addition, students will be required to complete an oral defense of each of these papers before the Committee. A minimum of 15-20 pages for each paper is suggested.

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**ACCELERATED MASTER OF ARTS IN POLITICAL SCIENCE**

**Eligibility Standards**
Students who meet the following criteria are eligible to apply to the accelerated program:

1. Signed major in political science.
2. Enrolled in last semester of junior status.
3. Completion of at least 15 political science credits, not including internship and CR/NC courses.
4. Completion of PSC 280 Introduction to Empirical Methods of Political Science with a grade of B+ or higher.

**Admission Requirements**
Students must apply for admission to the College of Graduate Studies during the last semester of their junior undergraduate year. Students must meet the requirements for admission to the Master of Arts in Political Science degree and to the College of Graduate Studies. In addition, students should also have completed university competency requirements. If admitted, graduate status is conferred in the senior year after the student has completed at least 86 undergraduate credit hours with a cumulative undergraduate grade point average of at least 3.25 or a grade point average of 3.25 in political science course work.

**Program Requirements**

Three to twelve (3-12) hours of graduate PSC credit (500 and 600 level courses) leading to MA degree in PSC may be taken in the final year of undergraduate work.

**Total: 30 semester hours**
Master of Public Administration (M.P.A.)

Minimum Totals for Graduation: 36 hours

Mission Statement

The Master of Public Administration at Central Michigan University provides a professional degree to prepare students to assume careers in the public and non-profit sectors. The program focuses on developing critical thinking, analytical skills, and an appreciation for ethical decision making. The program maintains a commitment to the recruitment and education of a diverse student body.

Accordingly, MPA-CMU has the following goals:

• Graduating well qualified professionals who will assume careers in the public and non-profit sectors.
• Balancing practical learning with the current theories of management, leadership, and administration.
• Providing a systematic understanding of political, economic, and social issues facing public administrators.
• Developing quantitative, technological, and analytical skills appropriate to current and future work in the public and non-profit sectors.
• Offering students professional development opportunities through internships and applied research in the public and non-profit sectors.
• Developing core competencies in problem solving skills, policy analysis, legal and constitutional frameworks, and management of a diverse workforce.
• Growing the MPA program for an off-campus audience through traditional and non-traditional delivery modes; to non-profit professionals; through the use of information technology.

Program Requirements

The requirements for the MPA degree consist of 36 hours of course work.

First, completion of a set of core courses presents an understanding of essential components of the discipline. Then, with the approval of an advisor, the student creates a degree emphasis in one of three ways:

a. by selecting a specific concentration in either Public Management or State and Local Government;

b. by selecting a set of general elective courses; or

c. by selecting a set of cognate courses focused on a particular subject area. Using this last method, MPA students have developed emphases in such areas as Planning and Land Use, Health Administration, and Recreation Management by incorporating courses from other departments, again with the approval of an advisor.

Advisors may make substitutions to the course requirements to fit the student's focus and the availability of course work. The pre-service student will also complete an internship of 3 hours (PSC 795) in place of an elective course.

Before enrollment in PSC 796, a student in conjunction with their advisor and faculty develop an approved research topic for the Applied Research Project. The student will present his or her project as part of the PSC 796 course guidelines.

Admission Requirements, Retention & Termination Standards

MPA Admission Requirements include the following:

1. An undergraduate grade point average of at least 2.8 (on a 4.0 point scale).
2. A minimum of 18 undergraduate hours in social science.
3. Evidence of successful completion of an undergraduate statistics or research methods course is required.
4. An essay (two or three pages, double-spaced) including a discussion of the applicant's professional goals and how completion of the program will facilitate his or her achievement of those goals. This essay replaces the written statement requested as part of the application to the College of Graduate Studies.
5. Three letters of recommendation from former professors or professionals in the field of public service that attest to the applicant's potential to succeed in the program.
6. If the applicant is an international student for whom English is not the first language, a score of 550 on the written-based (or 213 on the computer-based) Test of English as a Foreign Language (TOEFL).
7. Per university policy, conditional admission may be considered for applicants with backgrounds or grade point averages that do not meet these requirements. Courses taken to meet these requirements may not be counted toward graduate degree requirements. Regular admission status should be requested upon completion of all conditional requirements.
8. Up to 9 semester hours of graduate credit may be transferred from another institution with approval of the advisor and the dean of the College of Graduate Studies.

Degree Requirements

Core Courses (24-27 hours)

PSC 514 - American Public Policy Making 3(3-0)
PSC 610 - Foundations of Public Administration 3(3-0)
PSC 711 - Public Personnel Administration Practice 3(3-0)
PSC 713 - Public Budgeting and Finance 3(3-0)
PSC 714 - Program Analysis and Evaluation 3(3-0)
PSC 775 - Organization Theory in Public Administration 3(3-0)
PSC 780 - Research in Public Administration in Political Science 3(3-0)
PSC 795 - Internship in Public Administration 1-6(Spec)
PSC 796 - Applied Research in Public Administration 3(3-0)

Note: In-service students with experience are not required to take an internship (PSC 795). Students without experience will take 3 hours of internship, reducing their number of elective courses by 1 course, or 3 credit hours.

PSC 795 The Applied Research Project: Before a student’s final semester, he or she forms a Plan B paper committee of three members, and with their advice, develops an approved research topic. The student will present his or her finished paper to the committee when completed. Both on- and off-campus students are encouraged to develop their research topics through the tutelage of the entire teaching staff.

Degree Emphasis (9-12 hours)

Choose from one of the following options:

Cognate Courses Option (9-12 hours)

With the approval of an advisor, a student may create an emphasis in a subject area by selecting from 9 to 12 hours of cognate course work in place of the general electives. A cognate course is one outside of but related to the principal discipline of Public Administration.

(continued)
Public Management Concentration (9-12 hours)

PSC 522 - Regulatory Processes and Administrative Law 3(3-0)
PSC 566 - Intergovernmental Relations in the United States 3(3-0)
PSC 585 - Public Sector Information Technology Management 3(3-0)
PSC 712 - Implementation and Reform of Public Programs 3(3-0)
PSC 761 - Seminar in American State Government 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 785 - Strategic Leadership 3(3-0)

Note: Both PSC 561 and PSC 761 may not be selected.

State and Local Government Concentration (9-12 hours)

PSC 561 - American State Government and Administration 3(3-0)
PSC 563 - Politics and Policy in Urban Communities 3(3-0)
PSC 565 - Managing Modern Local Government 3(3-0)
PSC 566 - Intergovernmental Relations in the United States 3(3-0)
PSC 585 - Public Sector Information Technology Management 3(3-0)
PSC 761 - Seminar in American State Government 3(3-0)

Note: Both PSC 561 and PSC 761 may not be selected.

Total: 36 semester hours

Certificate of Professional Development in Public Administration

Minimum Totals for Graduation: 15 hours

The 15 credit hour certificate is designed for regularly admitted graduate students who desire advanced training in the field of public administration, but who are not seeking a master’s degree at this time. Credits successfully earned with the certificate program can be transferred toward the MPA degree. Students may substitute courses only upon approval of the Public Administration Council. Admission is through the College of Graduate Studies. Students pursuing this certification program should have a background in political science, public administration, economics, social work, criminal justice or any other administration related field.

Required Courses (15 hours)

PSC 585 - Public Sector Information Technology Management 3(3-0)
PSC 710 - Seminar on Public Bureaucracies and Policy Formation 3(3-0)
PSC 711 - Public Personnel Administration Practice 3(3-0)
PSC 713 - Public Budgeting and Finance 3(3-0)
PSC 714 - Program Analysis and Evaluation 3(3-0)
PSC 775 - Organization Theory in Public Administration 3(3-0)

Note: Both PSC 775 and 710 may not be selected.

Total: 15 Semester Hours

Course Descriptions: PSC

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: complete minimum of 56 credit hours of university course work.

PSC 520 American National Government and Politics 3(3-0)

This course will examine the major theoretical frameworks used in the study of American national government and politics and survey current research in the area. Prerequisites: a minimum of 9 hours of political science coursework, including PSC 105.

PSC 522 Regulatory Processes and Administrative Law 3(3-0)

Survey of the principles of administrative law and the politics of the U.S. regulatory processes. This course is approved for offering in a distance learning format.

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)

Significant aspects of international relations on the basis of timeliness and importance. This course is approved for offering in a distance learning format.

PSC 555 International Law I 3(3-0)

Processes of international law; role in international relations and organizations; effects on individual rights in peacetime through cases, treaties, customs, and legal rules. This course is approved for offering in a distance learning format.
PSC 556 International Law II 3(3-0)
This course supplements the study of the international legal regime examined in International Law I by focusing upon the newly established international criminal law regime. Recommended: PSC 555

PSC 561 American State Government and Administration 3(3-0)
Political, legislative, executive, and judicial processes of American state government, with emphasis on the way they affect public policies in the states.

PSC 563 Politics and Policy in Urban Communities 3(3-0)
Examination of large and small city governments. Their political process, behavior and citizen participation. Emerging public policies and intergovernmental cooperation.

PSC 565 Managing Modern Local Government 3(3-0)

PSC 566 Intergovernmental Relations in the United States 3(3-0)
An analysis of the administrative and fiscal relationships between the national, state, and local governments, with emphasis on grants-in-aid and revenue sharing.

PSC 583 Survey Research 3(3-0)
Development and utilization of quantitative data, with emphasis on behavioral research, public opinion polling, and statistical analysis.

PSC 585 Public Sector Information Technology Management 3(3-0)
To teach public administrators applied management techniques for public sector information systems, and the computer's role in the management of information in a democracy. Prerequisites: PSC 210; 56 semester hours completed or graduate status.

PSC 590 Independent Study 1-6(Spec)
Prerequisite: Open to majors or minors who have completed at least 12 hours of political science with a B average; arrange with department chairperson and instructor.

PSC 598 Special Topics in Political Science 1-12(Spec)
Subject matter not included in courses currently listed in Bulletin.

PSC 610 Foundations of Public Administration 3(3-0)
Overview of major subfields of modern public administration including administrative theories and processes, democratic environments, administrative functions and activities and analytical tools and concepts.

PSC 615 Politics and Regulation of Health Care Policy 3(3-0)
Explore external environments in which health care systems operate, political determinants of health care policy, politics of bureaucracy, social and economic demands placed upon the system.

PSC 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

PSC 642 Problems and Processes of International Development I 3(3-0)
Impact of modernization and industrialization upon emergent countries and nation-building processes.

PSC 651 Comparative Political & Economic Systems 3(3-0)
An introduction to comparative political and economic systems. How politics and economics interact in theory, as well as in economic and political interactions of nations. Prerequisite: PSC 351.

PSC 675 Public Sector Emergency and Crisis Organizational Theory 3(3-0)
Analysis of organizational theory as applied to public sector emergency and crisis management. Emphasis on structure, behavior, networks, and leadership. Prerequisites: Admission to the MPA program.

PSC 676 Emergency and Crisis Prevention, Preparedness and Response 3(3-0)
Analysis of public sector capacity in the four operational phases of emergency and crisis management: prevention, preparedness, response and recovery. Prerequisites: Admission to the MPA program.

PSC 677 The Public Sector Role in Post-Disaster Recovery 3(3-0)
Analysis of the emergency and crisis management considerations necessary to restoration of public services following a disaster. Prerequisites: Admission to the MPA program.

PSC 680 Methodology of Political Research 3(3-0)
This course focuses on the advanced study of the logic and methods of scientific research in political science. Recommended: PSC 280; or SOC 200 and SOC 350.

PSC 710 Seminar on Public Bureaucracies and Policy Formation 3(3-0)
Selected topics in bureaucratic policy-making, including science and public policy, liberalism and the bureaucratic states, and street-level bureaucracies.

PSC 711 Public Personnel Administration Practice 3(3-0)
Emphasizes skill development in selected areas of public personnel administration, including: personnel evaluation, collective bargaining, affirmative action, and human resource planning and development. This course is approved for offering in a distance learning format.

PSC 712 Implementation and Reform of Public Programs 3(3-0)
Methodology of implementing public programs. Examination of administrative reforms and their implementation. Recommended: Admission to MPA program.

PSC 713 Public Budgeting and Finance 3(3-0)
Advanced study of public budgets and processes. Emphasizes political nature of budget preparation, adoption, administration and evaluation at various levels of government.

PSC 714 Program Analysis and Evaluation 3(3-0)
Methodology of analyzing and evaluating public programs. Design and use of quantitative and qualitative techniques for predicting and measuring performance. Recommended: Admission to MPA program.

PSC 740 Seminar in Comparative Politics 3(3-0)
Examination of the specific approaches and methods of comparative political analysis.
PSC 761 Seminar in American State Government 3(3-0)
Study and research in the problems and the process of state government. Content varies. Recommended: PSC 561.

PSC 770 Seminar in Political Theory 3(3-0)
Investigation of selected aspects of ancient or modern political thought through a variety of sources.

PSC 773 Public Administration and Public Interest 3(3-0)
Normative theoretical inquiry into the ethical dimensions of public administration through a variety of sources in political thought and administrative theory.

PSC 774 Strategic Planning for Public/Non-Profit Organizations 3(3-0)
Study of strategic planning process and documents in public and no-profit organizations. Develop and critique strategic plans, goals, and information processes. Recommended: PSC 713 or PSC 714.

PSC 775 Organization Theory in Public Administration 3(3-0)
A systems approach to studying the appropriate design structures for administering complex organizations in the public sector. Emphasis on diverse strategies in decision making, planning, and coordination.

PSC 780 Research in Public Administration in Political Science 3(3-0)
Conceptual frameworks within which policy is studied, and relationship between theory and empirical research.

PSC 781 Techniques of Political Research 3(3-0)
This course focuses on regression analysis in political science and how to apply such methods to scholarly research. Prerequisites: PSC 680.

PSC 785 Strategic Leadership 3(3-0)
The study of leadership within public and not-for-profit organizations or agencies. Examines major theories of leadership, analyzes case studies involving leaders in various settings, and explores how to lead and manage change in organizations.

PSC 790 Advanced Readings I 1-6(Spec)
Prerequisite: permission of advisor and department chairperson.

PSC 795 Internship in Public Administration 1-6(Spec)
An integrative learning experience where students apply textbook knowledge to public administration and public affairs work experience. CR/NC only. Prerequisite: permission of instructor.

PSC 796 Applied Research in Public Administration 3(3-0)
Work experience in administration in a public agency is utilized in the course for an applied research project to integrate the practical and theoretical contributions.

PSC 798 Thesis 1-6(Spec)
CR/NC only. Prerequisite: written permission of advisor and department chairperson.

Department of Psychology (PSY)

College of Humanities and Social & Behavioral Sciences

Hajime Otani, Chairperson
101 Sloan Hall (989) 774-3001

Ignacio "David" Acevedo-Polakovich, Ph.D., University of Kentucky. Multicultural psychology, applied youth development, program evaluation, participatory research.

Jane Ashby, Ph.D., University of Massachusetts. Cognitive psychology.

Richard Backs, Ph.D., University of Southern California. Human factors, psychophysiology, aging, attention, emotion.

Terry Beehr, Director, Industrial/Organizational Psychology, Ph.D., University of Michigan. Job stress, retirement, leadership, careers.

Sharon Bradley-Johnson, Ed D., Western Michigan University. Low incidence disabilities, educational diagnosis, infant assessment.

Nicholas Cassavaugh, Ph.D., University of Illinois, Urbana-Champaign. Human Factors/Psychophysiology.

Neil Christiansen, Ph.D., Northern Illinois University. Personality and work, racism and social judgments, attitudes toward affirmative action.

Stephen Colerelli, Ph.D., New York University. Industrial/Organizational psychology, evolutionary psychology.

Gary Dunbar, Ph.D., Clark University. Behavioral neuroscience, stem cell and pharmacological treatment of brain damage and neurodegenerative diseases.

Rachel Foster-Lifson, Ph.D., University of Washington. Self-concept, psychology of women and of religion, social cognition.

Bryan Gibson, Ph.D., University of Utah. Self presentation, smoker-nonsmoker interaction, psychology of gambling.

Simone Grebner, Ph.D., University of Bern (Switzerland). Occupational health psychology, job stress.

Kyunghee Han, Ph.D., University of Minnesota. Scientific study of culture, quantitative methods, psychological test/scale development and evaluation.

Timothy Hartshorne, Ph.D., University of Texas at Austin. Low-incidence disabilities, CHARGE syndrome, deafblindness, disability and the family, parent-professional relationships, therapeutic interventions, issues around loss.

Michael Hixson, Ph.D., Western Michigan University. Behavior analysis, direct instruction, precision teaching, behavior development, curriculum based measurement.

Susan Jacob, Ph.D., Michigan State University. Ethics and law in school psychology, GLBTQ youth issues.

Melvyn Jaffa, Ph.D., Columbia University. Social cognition, emotionality, interpersonal behavior, eating.

Carl Johnson, Ph.D., Michigan State University. Sleep disorders, applied behavior analysis, organizational behavior management.

Jessica Marcon, Ph.D., University of Texas at El Paso. Legal Psychology; finger print identification; face identification.

Elizabeth Meadows, Ph.D., State University of New York at Albany. Anxiety disorders, trauma, prevention of psycho-pathology, psychological and medical problem interactions.

John Monahan, Undergraduate Director, Ph.D., Duke University. Perception, word and pattern perception, perceptual structure, attention, illusions.
Sandra Morgan, Director, School Psychology, Ph.D., Central Michigan University. Academic and behavioral assessment and intervention, pediatric consultation.

Larissa Niec, Ph.D., Case Western Reserve University. Children's interpersonal function, impact of out-of-home care on children, child maltreatment, attachment.

Justin Oh-Lee, Ph.D., University of California Los Angeles. Behavioral neuroscience, neuropharmacology, molecular genetics in neurodegenerative diseases such as Parkinson's and Alzheimer's.

Hajime Otani, Ph.D., University of Georgia. Human memory and cognition.

Debra Poole, Ph.D., University of Iowa. Basic language/cognitive/social development in children related to social issues, forensic psychology.

Stuart Quirk, Ph.D., Case Western Reserve University. Emotional response (with a general focus upon psychopathology), emotional regulation through substance use.

Mark Reilly, Director, Experimental Psychology, Ph.D., West Virginia University. Experimental analysis of behavior, operant/respondent conditioning, animal learning, quantitative models, behavioral pharmacology, substance abuse.

Katrina Rhymer, Ph.D., Mississippi State University. Academic, behavioral, and social/emotional interventions, curriculum-based measurement and single-subject design research.

George Ronan, Ph.D., Fairleigh Dickinson University. Personal problem solving, anger/aggression, psychological assessment.

Michael Sandstrom, Ph.D., Ohio State University. Assessing brain plasticity, compensatory neuronal activity, or neurochemical control during active behavior at various stages of deteriorative brain diseases such as Parkinson's and Huntington's using animal models.

Reid Skeel, Director, Clinical Psychology, Ph.D., University of Florida. Neuropsychology.

K. Roger Van Horn, Ph.D., Iowa State University. Human development and developmental changes in cognitive and psychosocial processes.

Nathan Weed, Ph.D., University of Minnesota. Assessment of personality and psychopathology, psychometric methods in personality assessment.

The Programs

The first graduate degree awarded in psychology at CMU was the Master of Arts in General Psychology in 1967. Since then the department has expanded its programs to include, along with the Master of Science in Experimental Psychology, a Master of Arts in Industrial/Organizational Psychology, a Specialist in Psychological Services in School Psychology, and Doctor of Philosophy degrees in Industrial and Organizational Psychology, Clinical Psychology, School Psychology and Applied Experimental Psychology. These programs have been, and continue to be, successful, with some of its graduates attaining national and international recognition in psychology.

The Department of Psychology maintains a variety of facilities that are used in the education of graduate students. Following is a brief description of those most frequently used within the department and university.

Computer Facilities. A computer lab for graduate students is located in Sloan Hall. This lab is equipped with six computers networked to a printer and university servers. Sloan Hall also houses two other computer labs for research and teaching purposes. There are a total of 36 networked computers (located on the second floor and in the basement) available for testing research participants. Computers are also available at the Health Professions Building for students who are working at the Psychological Training and Consultation Center (PTCC) as well as at the neuroscience and psychophysiology laboratories. Further, each faculty member maintains a lab with a computer, which is used for research purposes.

Human Subjects Laboratories. Space is reserved in Sloan Hall for research with human participants. Special apparatus permits studies in neuropsychology, social psychology, biofeedback, discrimination learning, and perception. A computer with appropriate interfacing helps provide flexibility in instruction and research. The use of closed-circuit TV monitoring in some rooms is also possible.

Brain Research and Integrative Neuroscience (BRAIN) Center. The BRAIN Center is a compilation of four state-of-the-art neuroscience laboratories located in the Health Professions Building, adjoined by fully-equipped shared core facilities for cellular/molecular neurobiology, behavioral assessments, image analysis and microscopy lab, and computer lab. A fully-equipped animal care facility with surgical suites and necropsy room is adjoined to the BRAIN Center. In addition, a radioisotope room, cold room, and darkroom are available for specialized procedures.

Behavior Analysis Laboratory. The Behavior Analysis and Pharmacology Laboratory is located in rooms 201-204 of Rowe Hall. The facilities include both rodent and avian colonies and state-of-the-art environmental control equipment and behavioral testing apparatuses. Operant conditioning chambers are computer controlled and fully equipped with multiple response manipulanda and reinforcer delivery systems, including syringe pumps for drug delivery. The lab is adjacent to a conference area with computer workstations for data analysis. There is also a fully modernized undergraduate student laboratory equipped with ten new operant conditioning stations.

Psychological Training and Consultation Center (PTCC). As one of the Carls Center allied health clinics, the Psychological Training and Consultation Center (PTCC) is located in the Health Professions Building. PTCC offers high quality and low cost psychological services, including psychotherapy and psychological assessment, to the mid-Michigan community. Psychological services are provided by CMU graduate students in psychology, as part of their clinical training experience. The students are supervised by psychology faculty whose expertise span a broad range of theoretical orientations, contributing to PTCC's overall eclectic approach to assessment and intervention. In addition, PTCC offers particular services through its specialty clinics, which include: The Violence Reduction Clinic, Parent-Child Interaction Therapy Clinic, Trauma & Anxiety Disorders Clinic, Psychological Assessment Clinic, The Neuropsychology Clinic, Childhood ADHD Clinic and the Learning Acceleration Clinic. For further information about any PTCC program, or to request services, the Psychological Training and Consultation Center’s main telephone number is 989-774-3904.

Engineering Psychophysiology Laboratory. This laboratory, located in the Health Professions Building, conducts research on the psychophysiology of attention in human performance. The current focus of the laboratory is on attention, distraction, and the use of advanced telematic devices during driving across different populations of drivers (e.g., young vs. old adults, patients with sleep or neurological disorders). A variety of central and autonomic nervous system measures can be collected during driving simulation in this laboratory, including electroencephalographic (dense-array EEG and event-related brain potentials), cardiovascular (electro- and impedance cardiography, blood pressure), and pulmonary responses.
DeafBlind Central. Michigan’s Training and Resource Project is a comprehensive statewide technical assistance program funded through the United States Department of Education. The project provides information, training, consultation, and referrals for families and/or professionals who are impacted by, or associated with, a child who has combined vision and hearing loss, often with additional disabilities. Project staff members are also involved with various systems change initiatives. DeafBlind Central is housed in Sloan 105.

CMU Center for Driving Evaluation, Education, & Research (D.E.E.R.). The mission of the D.E.E.R. Center is to provide clinical services to evaluate cognitive fitness to drive, to provide education to improve older driver safety, and to conduct research on older drivers and drivers with attention disorders. The center has the AAA Michigan Driving simulator for use in research and in evaluation and education. The D.E.E.R. Center is a place where older adults or persons who have a neurodegenerative disease, had a stroke, or sustained a brain injury can come to have their driving ability evaluated to determine if they are safe to continue, or are ready to resume, driving. The center will also offer driver safety courses for older drivers. Finally, the center is a place where multidisciplinary research on older drivers or drivers with attention disorders is conducted. For more information, see www.deercenter.org.

Center for Research, Training and Consultation on GLBTQ Youth Issues. This center, housed in the Psychology Department, coordinates and promotes cross-disciplinary research on GLBTQ youth; disseminates evidence-based information to professionals who work with GLBTQ youth; provides consultation to K-12 schools on GLBTQ issues; and sponsors STRUTS, an activity program for area GLBTQ teens. The center provides research and service learning opportunities for CMU undergraduate and graduate students interested in GLBTQ youth.

Graduate Student Offices. Graduate assistants and fellowship recipients have office space available to them in Sloan Hall. Deadlines for application for admission are listed with each degree program. Prospective applicants can contact the Psychology Department directly for information and application material or visit the website at www.chsbs.cmich.edu/psychology.

Master of Science (M.S.) in Experimental Psychology

Minimum Totals for Graduation: 36 hours

The Master of Science in Experimental Psychology program at Central Michigan University is a broad yet flexible program designed to develop individual scholarship. Students are exposed to a variety of content areas, while concentrating on a major area of study. Throughout their program, all students are expected to be actively involved in research with a faculty member. The program’s primary emphasis is to prepare students for doctoral study or research positions in the public or private sector.

Admission Requirements, Retention & Termination Standards

Application Deadline for all materials: February 1

The Master of Science degree in Experimental Psychology is based upon the satisfactory completion of a minimum of 36 semester hours of graduate work.

When applying for the Master of Science degree in Experimental Psychology, applicants must send three letters of reference and official GRE scores directly to the Department of Psychology. Fifteen semester hours of undergraduate psychology or the equivalent as determined by the department, and a 3.0 grade point average, are required for admission. Students who are deficient in certain subject areas such as statistics (PSY 211) or methodology (PSY 285, PSY 385) will be expected to make up these deficiencies in addition to the normally prescribed graduate course work for the degree. A maximum of nine credit hours earned during non-degree status may be applied toward the MS degree.

Degree Requirements

Required Courses (14 hours)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 511</td>
<td>Statistics in Psychology</td>
<td>3(3-1)</td>
</tr>
<tr>
<td>PSY 609</td>
<td>History and Systems of Psychology</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>PSY 690</td>
<td>Research Seminar: Experimental Psychology</td>
<td>1-3(Spec)</td>
</tr>
<tr>
<td>PSY 798</td>
<td>Thesis 1-6(Spec)</td>
<td></td>
</tr>
</tbody>
</table>

Note: 2 hours of PSY 690; 6 hours of PSY 798.

In addition to course work, a student must complete an oral examination over the thesis.

Additional Requirement I (3 hours)

Select one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 511</td>
<td>Statistics in Psychology</td>
<td>3(3-1)</td>
</tr>
<tr>
<td>PSY 612</td>
<td>Applied Multiple Regression and Correlation</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>PSY 613</td>
<td>Multivariate and Correlational Methods</td>
<td>3(3-0)</td>
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</table>

Additional Requirement II (3 hours)

Select one course from the following:

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PSY 587</td>
<td>Physiological Psychology</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>PSY 687</td>
<td>Physiological Foundations</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

Additional Requirement III (3 hours)

Select one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 589</td>
<td>Cognitive Psychology</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>PSY 680</td>
<td>Learning</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>PSY 681</td>
<td>Sensation and Perception</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

Additional Requirement IV (3 hours)

Select one course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 624</td>
<td>Advanced Developmental Psychology</td>
<td>3(3-0)</td>
</tr>
<tr>
<td>PSY 630</td>
<td>Advanced Social Psychology</td>
<td>3(3-0)</td>
</tr>
</tbody>
</table>

Cognate Courses (0-6 hours)

To be chosen in consultation with an advisor.

Electives (4-10 hours)

To be chosen in consultation with an advisor.

Total: 36 semester hours

Information concerning additional requirements can be obtained by contacting the Experimental MS program director.

Accelerated Master of Science in Experimental Psychology

Advanced undergraduate students majoring in psychology who want to obtain additional training in experimental psychology may want to consider an option by which they can obtain their Bachelor of Science with the General Major in Psychology and their Master of Science in Experimental Psychology in five years. The accelerated program course requirements are identical to the General Major in Psychology and to the Master of Science in Experimental Psychology and allows the student to apply 12 credit hours of graduate coursework toward both their Bachelor of Science and Master of Science degrees.

To be eligible for the accelerated program, students must meet all of the admissions requirements for regular admission to the Master of Science in Experimental Psychology program and have completed at least 84 credit hours of undergraduate coursework, including all General Education, University Program, and competency requirements. It is expected that students will already be
engaged in research with a faculty member prior to admission to the accelerated program.

The accelerated Master of Science in Experimental Psychology program is a 12-month program. Students will complete the Bachelor of Science degree requirements and the first year of coursework for the Master of Science by the end of the summer term of their fourth year. Students will complete the coursework for the Master of Science and conduct and defend their thesis by the end of the summer term of their fifth year. A sample curriculum for a student who has completed 84 credit hours of undergraduate coursework is given below. Undergraduate coursework completed beyond 84 credit hours would lead to conferral of the Bachelor of Science degree prior to the end of the summer term in Year Four.

Sample Curriculum

Year Four

Fall
PSY 511 - 3 hours (see Note 1)
Graduate Requirement - 3 hours (See Note 1)
PSY 690 - 1 hour (See Note 2)
Undergraduate Courses - 9 hours
Total: 16 hours

Spring
Graduate Requirement - 3 hours (See Note 1)
Graduate Requirement - 3 hours (See Note 1)
PSY 690 - 1 hour (See Note 2)
Undergraduate Courses - 9 hours
Total: 16 hours

Summer
Undergraduate Courses - 10 hours
Total: 10 hours

Bachelor of Science degree conferred

Year Five

Fall
Graduate Requirement - 6 hours
Graduate Elective - 3 hours
Total: 9 hours

Spring
PSY 798 - 3 hours
Graduate Elective - 3 hours
Total: 6 hours

Summer
PSY 798 - 3 hours
Graduate Elective - 4 hours
Total: 7 hours

Master of Science degree conferred

Note 1: Courses that apply to both the BS and MS degrees. Required courses are (PSY 511; PSY 609; PSY 611 or 612 or 613; PSY 587 or 687; PSY 589 or 680 or 681; and PSY 624 or 630). Students must register for graduate credit for these courses.

Note 2: Apply to MS degree only.

Doctor of Philosophy (Ph.D.) in Applied Experimental Psychology

Minimum Totals for Graduation: 54 hours

The objective of the Ph.D. program in Applied Experimental Psychology is to develop individuals with strong applied experimental research skills for positions in business, industry, allied health, government agencies and in academia. The program is designed to provide advanced training in psychological processes (e.g. biological, cognitive, behavioral, social, personality) and quantitative-methodological procedures (e.g. statistics, experimental design, computer applications) and their utilization in an applied setting. The program will provide students with specialized applied training, including a pre-doctoral internship. The program uses a mentor system, matching students with faculty members who have interest in closely related areas. The current areas of training include: human factors (ergonomics, psychophysiology, attention and perceptual processes); behavioral medicine (with emphasis on developmental disabilities and infant disorders); applied cognitive science (with special emphasis on memory, cognitive modeling, decision making, forensic psychology); applied social psychology (social cognition, personality judgments, individual differences, and attitudes); applied developmental psychology (with emphasis on adjustment in adolescent and aged individuals); and applied neuroscience (with special emphasis on testing potential pharmacotherapies for neurodegenerative diseases, such as Huntington’s and Parkinson’s diseases); and behavior analysis (with special emphasis on applied behavior analysis, behavioral pharmacology, behavioral pediatrics, organizational behavior management and the experimental analysis of behavior).

Admission Requirements, Retention & Termination Standards

Application deadline for all materials: February 1

Applicants to the Program are expected to have a baccalaureate degree, a minimum 3.00 GPA, and at least 15 hours of psychology. The foundation of the program is the M.S. Program in Experimental Psychology. The first two years of the program are identical to those of the M.S. Program in Experimental Psychology. Students accepted into the program must complete all of the requirements of the M.S. Program in Experimental Psychology or its equivalent. The emphasis in third and fourth years is on advanced specialized training, including generating high quality applied research and gaining practical experience through internships.

Program Requirements

Admission to doctoral candidacy is based on satisfactory grades, completion of thesis requirements, and passing a comprehensive examination over PSY 800 project at the end of the third year. Before applying for pre-doctoral internship training, students must have a doctoral dissertation proposal accepted by their dissertation committee. The doctoral degree is awarded upon successful completion of a pre-doctoral internship, as well as the successful defense of a doctoral dissertation.

Degree Requirements

Required Courses (30 hours)
PSY 789 - Seminar in Applied Experimental Psychology 1-9(Spec)
PSY 800 - Research in Applied Experimental Psychology 1-12(Spec)
PSY 898 - Doctoral Dissertation: Design 3-12(Spec)
PSY 899 - Doctoral Dissertation: Implementation 3-12(Spec)

Note: A minimum of 15 credit hours from the combination of PSY 898 and PSY 899 is required.
Required Courses II (6 hours)

Select one of the following:
PSY 990 - Internship A: Professional Services 3-6(Spec)
PSY 991 - Internship B: Professional Services 3-6(Spec)

Note: A minimum of 6 credit hours is required.

Electives (18 hours)

Select 18 hours of PSY courses in consultation with advisor.

Total: 54 semester hours (minimum hours for third and fourth years)

Clinical Psychology

Master of Arts (M.A.) in Clinical Psychology

A Master of Arts degree in Clinical Psychology can only be awarded to students who have been accepted and matriculated in the Ph.D. program in Clinical Psychology. Students must complete the first two years of the Clinical Psychology program and defend a master’s thesis prior to petitioning for the M.A. degree.

Doctor of Philosophy (Ph.D.) in Clinical Psychology

Minimum Totals for Graduation: 108 hours

Model

The Ph.D. program in clinical psychology follows a scientist-practitioner model in training graduates to function as ethical clinical psychologists who have breadth and depth in assessment and intervention, as well as the ability to conduct clinical research. Graduates function successfully in modern professional contexts and demonstrate an investment in lifelong learning. The clinical faculty represent various clinical and research interests.

The program endorses the criteria for training set forth by the Committee on Accreditation of the American Psychological Association (APA)* and is listed as an accredited program. The curriculum reflects recent developments in scientific psychology, while imparting to students the skills needed to respond to contemporary clinical concerns. Our training model endorses practice based on sound theoretical and empirical foundation in the science of psychology. The doctoral program includes four years of intensive didactic preparation and applied experience plus a yearlong, full-time internship.

*Committee on Accreditation
American Psychological Association
750 First Street, NE
Washington, DC 20002-4242
202-336-5979
202-336-6123 TDD/TTY

Curriculum

Students are accepted into the program on a full-time basis. Before arriving on campus each student is assigned a clinical faculty mentor. This faculty mentor aids the student in his or her passage through the program. Students entering with a BA/BS degree are required to complete approximately 108 graduate credit hours. Although some courses may be waived based on prior graduate work, no more than 30 credit hours can be transferred. The current curricular requirements are listed below by year of completion.

Degree Requirements

Year 1 (24 hours)

PSY 510 - Principles of Psychological Measurement 3(3-0)
PSY 609 - History and Systems of Psychology 3(3-0)
PSY 642 - Clinical Research Methods 3(3-0)
PSY 653 - Intervention I: Adult 3(3-0)
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 751 - Psychopathology 3(3-0)
PSY 790 - Practicum I A: Professional Services 3(Spec)
PSY 791 - Practicum I B: Professional Services 3(Spec)
PSY 798 - Thesis 1-6(Spec)

Year 2 (30 hours)

PSY 611 - Research Design 3(3-0)
PSY 624 - Advanced Developmental Psychology 3(3-0)
PSY 630 - Advanced Social Psychology 3(3-0)
PSY 641 - Objective Personality Assessment 3(2-2)
PSY 687 - Physiological Foundations 3(3-0)
PSY 785 - Seminar: Cognitive-Behavior Theory 3(3-0)
PSY 790 - Practicum II A: Professional Services 3(Spec)
PSY 791 - Practicum II B: Professional Services 3(Spec)
PSY 798 - Thesis 1-6(Spec)

Year 3 (24 hours)

PSY 589 - Cognitive Psychology 3(3-0)
PSY 612 - Applied Multiple Regression and Correlation 3(3-0)
PSY 661 - Neuropsychological Assessment 3(3-0)
PSY 765 - Seminar: Ethics and Professional Issues 3(3-0)
PSY 850 - Ethnic and Minority Issues in Therapy 3(3-0)
PSY 890 - Practicum III A: Professional Services 3(Spec)
PSY 891 - Practicum III B: Professional Services 3(Spec)
Plus one elective (3 hours)

Year 4 (24 hours)

PSY 892 - Practicum IV A: Professional Services 3(Spec)
PSY 893 - Practicum IV B: Professional Services 3(Spec)
PSY 898 - Doctoral Dissertation: Design 3-2(Spec)
PSY 899 - Doctoral Dissertation: Implementation 3-2(Spec)

Plus two electives (6 hours)

Year 5 (6 hours)

PSY 990 - Internship A: Professional Services 3-6(Spec)
PSY 991 - Internship B: Professional Services 3-6(Spec)

Total: 108 Semester Hours
Industrial and Organizational (I/O) Psychology

The Department of Psychology offers a terminal Master's degree (M.A.) and a Doctor of Philosophy degree (Ph.D.) in Industrial and Organizational (I/O) Psychology. Both degrees are oriented toward training students for careers in research, university, or business settings. Graduates of the programs are typically involved in research, and in planning, design, delivery, or evaluation of psychological programs in organizations. Examples of such programs include employee testing and selection, performance appraisal, training, stress management, job and organizational design, and organizational change and development.

Master of Arts (M.A.) in Industrial/Organizational Psychology

Minimum Totals for Graduation: 39 hours

This program is designed for full-time students. It is helpful if students have taken introductory courses in general psychology, I/O psychology, research methodology, and statistics.

Admission Requirements, Retention & Termination Standards

Application deadline for all materials: January 1.

When applying for the terminal M.A. degree in Industrial/Organizational Psychology, applicants must send three letters of reference, official GRE scores directly to the Psychology Department, and send the graduate college application materials to the College of Graduate Studies. The M.A. degree in Industrial/Organizational Psychology is based on the satisfactory completion of a minimum of 39 semester hours of graduate coursework, including a master's thesis. The M.A. is oriented toward training students for careers in business, government, consulting, or going on to Ph.D. programs.

Degree Requirements

Required Application Course (3 hours)

Select one of the following:
PSY 790 - Practicum I A: Professional Services 3(Spec)
PSY 791 - Practicum I B: Professional Services 3(Spec)

Required Courses (18 hours)
PSY 535 - Organizational Psychology 3(3-0)
PSY 536 - Personnel Psychology 3(3-0)
PSY 537 - Organizational Behavior Management 3(3-0)
PSY 636 - Organizational Applications of Personnel Psychology 3(3-0)
PSY 736 - Strategies for Interventions in Social Systems 3(Spec)
PSY 788 - Thesis 1-6(Spec)

Note: Student must choose between PSY 537 and PSY 736.

Required Quantitative Courses (9 hours)

Select three of the following:
PSY 510 - Principles of Psychological Measurement 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)

Electives (9 hours)

Psychology electives to be selected in consultation with the advisor.

Total: 39 semester hours

Doctor of Philosophy (Ph.D.) in Industrial/Organizational Psychology

Minimum Totals for Graduation: 96 hours

This program is designed for full-time students. It is helpful if students have taken introductory courses in general psychology, I/O Psychology, research methodology, and statistics.

The Ph.D. curriculum in I/O Psychology involves approximately four years of intensive academic preparation. The curriculum has been designed to reflect classic and current developments in applied psychology and to provide skills needed in the resolution of organizational problems. Students take courses in foundation areas of psychology. Training in I/O Psychology emphasizes theory, research, and practice in personnel psychology and organizational psychology.

Admission Requirements, Retention & Termination Standards

Application deadline for all materials: January 1

Admission

When applying for the Ph.D. in I/O Psychology, applicants must submit three letters of reference and official GRE scores.

Program Requirements

Progress through the program is based upon satisfactory grades (a B average overall and a B or better in each class) plus the passage of a comprehensive exam, and successful completion of coursework, a master's thesis, and a doctoral dissertation. Students must take a minimum of 12 hours of dissertation credits, and may take up to 24 hours.

Students entering the Ph.D. program are expected to complete the program within seven (7) years. The time limit for students entering with a graduate degree or graduate work will be prorated. Extension of the time limit to complete degree requirements will be granted rarely and only if steady progress toward the degree is evident.

An internship is optional. Before accepting an internship, I/O students must pass their comprehensive exams and have a doctoral dissertation proposal accepted by their dissertation committees.

Students entering with a bachelor's degree will be required to complete approximately 96 credit hours; those entering with a master's degree will be required to complete approximately 70 graduate credit hours.

Some courses are offered in accordance with a planned sequence.

Students enrolled in the Ph.D. program in I/O Psychology will be eligible for the Master of Arts degree after successful completion of appropriate coursework and a master's thesis.

Degree Requirements

Required Courses I (9 hours)

Foundations of Psychology Courses

Select three of the following with these exceptions: If you select PSY 587, do not select PSY 687. If you select one of PSY 589, PSY 680 or PSY 681 do not select the other two.

PSY 583 - Motivation and Emotion 3(3-0)
PSY 587 - Physiological Psychology 3(3-0)
PSY 589 - Cognitive Psychology 3(3-0)
PSY 609 - History and Systems of Psychology 3(3-0)
PSY 624 - Advanced Developmental Psychology 3(3-0)
PSY 630 - Advanced Social Psychology 3(3-0)

(continued)
School Psychology

Training Model: Scientist-Practitioner Model

The training model is based on the scientist-practitioner tradition emphasizing the application of behavioral science in educational systems and the larger community. Training emphasizes practice guided by scientific knowledge. Students are taught to use scientific principles to inform their practice (including consultation, intervention, and diagnostic services) and to evaluate their practice in order to improve services as well as contribute to the field of school psychology. The program is committed to fostering in its students sensitivity to, appreciation for, and understanding of ethnic diversity. Similarly, the program strives to promote understanding of, and responsiveness to, the special needs of individuals with disabilities.

Specialist in Psychological Services (S.Psy.S.)

Minimum Totals for Graduation: 70 hours

This is a three-year, full-time, 70-hour graduate program, designed specifically to meet NASP/NCATE accreditation standards, leading to the Master of Arts degree in Psychology and the Specialist in Psychological Services. Students complete coursework that prepares them to be knowledgeable in the following core content areas: Psychological and Educational Foundations, Research Methods, Psychological and Educational Assessment, Intervention Strategies, and Professional School Psychology. A full-time internship is completed during the third year of the program. The program is designed to be completed in three years. Students are expected to take no more than five years to finish.

Although this is a three-year graduate degree, applications will be accepted from students who already have taken graduate work, including the master's degree, at Central Michigan University or at other approved institutions. Credit will be given for such work in accordance with university regulations, provided it is consistent with the School Psychology curriculum.

This program meets the Michigan requirements for certification as a School Psychologist as defined by the State Board of Education. In addition, this program will permit certification as a School Psychologist in the majority of states.

Admission Requirements, Retention & Termination Standards

Application deadline for all materials: January 15

Admission

Admission is competitive with approximately 8 to 10 students accepted each year.

An acceptable master's degree or 15 semester hours of undergraduate psychology or the equivalent as determined by the department, a 3.0 overall grade point average, and scores from the Graduate Record Examination taken within the last five years are required for admission. Students who are deficient in certain subject areas will be expected to make up these deficiencies in addition to the normally prescribed graduate coursework for the degree.

Program Requirements

Progress through the program is based on satisfactory grades (a grade point average of "B" or better overall) and satisfactory evaluations of pre-professional functioning (e.g., appropriate interpersonal skills, ethical and professional conduct). Serious and persistent difficulties in preprofessional functioning may result in dismissal from the program (see Student Handbook, School Psychology Program).
For admission to 790, a student must have earned a "B" or better grade in each of the following courses: PSY 655, 656, 667, 767. In addition, a student must earn a "B" or better grade in PSY 791 and have an approved thesis proposal prior to admission to PSY 795.

At the master's degree level, a thesis and oral exam over the thesis are required. At the specialist degree level, the student must demonstrate professional competencies in working with students, parents, and school personnel. This requirement will be met by the student's satisfactory completion of a supervised internship (PSY 795, Internship A; PSY 796, Internship B).

**Degree Requirements**

**Required Course for Master's Degree (34 hours)**

34 hours chosen from Required Courses I-VI below:

- **Required Courses I (19 hours)**
  - PSY 605 - Assessment of Affective and Behavioral Disorders of Children and Youth 3(3-0)
  - PSY 655 - Introduction to Intelligence Testing 2(2-2)
  - PSY 656 - Advanced Intellectual Assessment 2(2-2)
  - PSY 667 - Assessment and Development of Academic Skills I 3(3-1)
  - PSY 767 - Assessment and Intervention for Developmental Disabilities 3(3-0)
  - PSY 798 - Thesis 1-6(Spec)

- **Required Courses II (3 hours)**
  - PSY 511 - Statistics in Psychology 3(3-1)

- **Required Courses III (3 hours)**
  - **Social Basis of Behavior**
    - SPE 550 - Teaching Culturally Diverse Students 3(3-0)

- **Required Courses IV (3 hours)**
  - **Human Development**
    - PSY 682/EDU 682 - Psychology of Child Development 3(3-0)

- **Required Courses V (3 hours)**
  - **Cognitive Basis of Behavior**
    - PSY 680 - Learning 3(3-0)

- **Required Courses VI (3 hours)**
  - **Biological Basis of Behavior**
    - PSY 587 - Physiological Psychology 3(3-0)

**Note:** Course substitutions can be made in Required Courses III through VI with the approval of the student's advisor and program director.

**Additional Required Courses for the Specialist Degree (36 hours)**

36 additional hours are required for the Specialist Degree selected from Additional Required Courses I and II as follows:

- **Additional Required Courses I (3 hours)**
  - Select one of the following:
    - PSY 586 - Applied Behavioral Analysis in Education 3(3-0)
    - PSY 780 - Behavior Therapy 3(2-2)

- **Additional Required Courses II (27 hours)**
  - PSY 562 - Therapeutic Intervention: Foundations 3(3-0)
  - PSY 662 - Advanced Therapeutic Interventions 3(3-1)
  - PSY 677 - Assessment and Development of Academic Skills II 3(3-0)
  - PSY 760 - Seminar: School Services 3(3-0)
  - PSY 766 - Seminar: Consultation Skills 3(Spec)
  - PSY 790 - Practicum I A: Professional Services 3(Spec)
  - PSY 791 - Practicum I B: Professional Services 3(Spec)
  - PSY 795 - Internship in School Psychology A 3(Spec)
  - PSY 796 - Internship in School Psychology B 3(Spec)

**Electives (6 hours)**

- Hours of coursework are chosen with the approval of the student's advisor.

**Total: 70 semester hours**

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**Doctor of Philosophy (Ph.D.) in School Psychology**

**Minimum Totals for Graduation: 106 hours**

CMU's School Psychology Doctoral program is fully accredited by both the American Psychological Association (APA) and the National Association of School Psychologists.

The Doctor of Philosophy curriculum in School Psychology is designed to extend the training of the specialist level school psychologist so that he or she is prepared to serve educational systems and the larger community. The program prepares school psychologists who are flexible enough to assume a variety of roles in the delivery of mental health services; who can assume a leadership role in the development of comprehensive and effective educational and psychological services to children, families, and schools; and who are able to supervise, coordinate, and direct the activities of others in the delivery of school psychological services.

The program of study typically includes four years of intensive academic preparation and field experience plus a one-year, full-time internship. At least 600 hours of supervised experience shall be in a school setting. The curriculum is designed to reflect recent developments in school psychology.

Students are accepted into the program on a full-time basis, and normal progress through the program requires a course load of about 12 credit hours per semester. Students are expected to take at least 6 credit hours per semester. For at least one year of the program, students must be in full-time residence at Central Michigan University.

**Admission Requirements, Retention & Termination Standards**

**Application deadline for all materials:** January 15

**Admission**

Admission is competitive with approximately 8 to 10 students accepted each year (Specialist and Doctoral).

Minimum admission requirements include an undergraduate major in psychology or at least 15 semester hours of psychology and a 3.0 overall grade point average. A background in scientific psychology and basic research methodology including statistics and experimental psychology is strongly weighted to assure that students will be conversant with research. Students who do not meet the required 15 semester hours of basic psychology courses, but appear qualified for doctoral study, are required to remedy deficiencies as part of their initial coursework. The doctoral admissions committee will identify what coursework is necessary and inform the student about remediation.

In addition to grades and GRE scores (taken within five years of application), the doctoral admissions committee is very attentive to letters of recommendation, personal statements, and relevant professional experiences. Work history, professional goals, capacity for relating to and working with other people, emotional maturity and stability, and motivation also are considered. GRE scores are viewed as one predictor of the likelihood of success in graduate study. Consequently, for applicants who already hold a graduate degree in school psychology or a related field, greater weight is given to prior graduate school performance than GRE scores.

**Program Requirements**

Progress through the program is based upon satisfactory grades (a B average overall; a B or better in all assessment, practica, and internship courses; and a B- or better in all other classes) and satisfactory evaluations of pre-professional functioning (e.g.,
appropriate interpersonal skills, ethical and professional conduct). Serious and persistent difficulties in pre-professional functioning may result in dismissal from the program (See Student Handbook, School Psychology Program).

Successful completion of the thesis and comprehensive exam and approval of the dissertation proposal are required before taking the internship. The Ph.D. degree will be awarded upon successful completion of coursework, a thesis, a doctoral dissertation, and an internship.

Students entering with a BA/BS degree will be required to complete 106 credit hours, those entering with appropriate advanced degrees may be able to waive some coursework in consultation with their advisor. Courses are offered in accordance with a planned sequence designed to meet individual needs in terms of professional goals, academic background, and attained skills of each candidate.

### Degree Requirements

<table>
<thead>
<tr>
<th>Required Courses I (9 hours)</th>
<th>PSY 609 - History and Systems of Psychology 3(3-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PSY 630 - Advanced Social Psychology 3(3-0)</td>
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<td></td>
<td>PSY 687 - Physiological Foundations 3(3-0)</td>
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<tr>
<th>Required Courses II (3 hours)</th>
<th>Human Development</th>
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<tr>
<td>Select one of the following:</td>
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<tr>
<td>PSY 624 - Advanced Developmental Psychology 3(3-0)</td>
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<tr>
<td>PSY 682/EDU 682 - Psychology of Child Development 3(3-0)</td>
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<tr>
<th>Required Courses III (3 hours)</th>
<th>Cognitive and Affective Aspects of Behavior</th>
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<tbody>
<tr>
<td>Select one of the following:</td>
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<tr>
<td>PSY 589 - Cognitive Psychology 3(3-0)</td>
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<tr>
<td>PSY 680 - Learning 3(3-0)</td>
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<tr>
<th>Required Courses IV (3 hours)</th>
<th>Multicultural Issues</th>
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<tbody>
<tr>
<td>Select one of the following:</td>
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<tr>
<td>HDF 603/SOC 611 - Human Diversity Within and Between Families 3(3-0)</td>
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<tr>
<td>PSY 533 - Psychology of Racism 3(3-0)</td>
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<tr>
<td>PSY 850 - Ethnic and Minority Issues in Therapy 3(3-0)</td>
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<tr>
<th>Required Courses V (6 hours)</th>
<th>Educational Foundations</th>
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<tbody>
<tr>
<td>PSY 677 - Assessment and Development of Academic Skills II 3(3-0)</td>
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<tr>
<td>PSY 760 - Seminar: School Services 3(3-0)</td>
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<thead>
<tr>
<th>Required Courses VI (28 hours)</th>
<th>Assessment and Intervention</th>
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<tbody>
<tr>
<td>PSY 562 - Therapeutic Intervention: Foundations 3(3-0)</td>
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<tr>
<td>PSY 605 - Assessment of Affective and Behavioral Disorders of Children and Youth 3(3-0)</td>
<td></td>
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<tr>
<td>PSY 655 - Introduction to Intelligence Testing 2(2-2)</td>
<td></td>
</tr>
<tr>
<td>PSY 656 - Advanced Intellectual Assessment 2(2-2)</td>
<td></td>
</tr>
<tr>
<td>PSY 662 - Advanced Therapeutic Interventions 3(3-1)</td>
<td></td>
</tr>
<tr>
<td>PSY 667 - Assessment and Development of Academic Skills I 3(1-1)</td>
<td></td>
</tr>
<tr>
<td>PSY 751 - Psychopathology 3(3-0)</td>
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<tr>
<td>PSY 766 - Seminar: Consultation Skills 3(Spec)</td>
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<tr>
<td>PSY 767 - Assessment and Intervention for Developmental Disabilities 3(3-0)</td>
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<tr>
<td>PSY 780 - Behavior Therapy 3(2-2)</td>
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</tbody>
</table>

### Required Courses VII (9 hours)

#### Methods Statistics and Program Evaluation Courses
- PSY 611 - Research Design 3(3-0)
- PSY 612 - Applied Multiple Regression and Correlation 3(3-0)
- PSY 818 - Program Evaluation 3(Spec)

### Required Courses VIII (3 hours)

#### Ethics
- PSY 765 - Seminar: Ethics and Professional Issues 3(3-0)

#### Thesis (6 hours)
- PSY 798 - Thesis 1-6(Spec)

### Required Experience-Based Courses (18 hours)

- PSY 790 - Practicum I A: Professional Services 3(Spec)
- PSY 791 - Practicum I B: Professional Services 3(Spec)
- PSY 890 - Practicum II A: Professional Services 3(Spec)
- PSY 891 - Practicum II B: Professional Services 3(Spec)
- PSY 990 - Internship A: Professional Services 3-6(Spec)
- PSY 991 - Internship B: Professional Services 3-6(Spec)

### Doctoral Dissertation (12 hours)

- PSY 898 - Doctoral Dissertation: Design 3-12(Spec)
- PSY 899 - Doctoral Dissertation: Implementation 3-12(Spec)

### Electives (6 hours)

- Chosen in consultation with advisor

Total: 106 semester hours

### M.S. and Ph.D. in Neuroscience

These degrees are interdisciplinary programs. Please see the index for the page number.

### Course Descriptions: PSY

#### PSY 500 Special Issues 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum. Prerequisites: See class schedule.

#### PSY 501 Workshop 1-18(Spec)
Study of problem-oriented subjects for persons already working in psychological services with the intent of continuing their professional growth. Prerequisite: see class schedule.

#### PSY 502 Teaching Assistant in Psychology 1-3(Spec)
Development of practical skills for effective teaching of psychology. No more than 3 hours of PSY 502 may be applied to a student’s psychology major or minor. Prerequisite: permission of instructor.

#### PSY 503 Principles and Applications of Sign Language and Manual Systems 3(3-0)
Focused study in the principles of the application of signed and manual communication with Deaf and other populations for educational, clinical and human service settings.

#### PSY 509 Behavioral Pharmacology 3(3-0)
This course covers basic principles of pharmacology, receptor theory, drug classes, methods in basic pharmacology and behavioral pharmacology, and research and theory in behavioral pharmacology. Prerequisites: PSY 100; PSY 383 or 384 or 387 or graduate status.

#### PSY 510 Principles of Psychological Measurement 3(3-0)
Problems and procedures in scaling and in correlational methods related to testing reliability, validity, and measurement error. Prerequisite: PSY 310, PSY 211.
PSY 511 Statistics in Psychology 3(3-1)
An extension of topics introduced in PSY 211, with emphasis upon hypothesis testing and statistical inference. Prerequisite: PSY 211.

PSY 531 Group Dynamics 3(3-0)
Conceptual and empirical background in the dynamics of face-to-face groups and related interpersonal areas. Emphasis is cognitive-theoretical rather than experiential. Prerequisite: PSY 330.

PSY 533 Psychology of Racism 3(3-0)
This course explores racism from a cognitive-social psychological viewpoint. The processes involved in the development, maintenance and change of racist attitudes are considered. Prerequisites: junior or higher standing; PSY 330 or SOC 201; a social science methods class.

PSY 534 Psychology and the Courtroom 3(3-0)
The application of psychological principles and theories to the courtroom. Prerequisites: coursework in basic statistics (e.g., PSY 211) and research methods (e.g., PSY 285); graduate standing. This course is approved for offering in a distance learning format.

PSY 535 Organizational Psychology 3(3-0)
The study of organizations as complex social systems with analyses of individual and group behavior in organizations and responses of organizations to their environment. Prerequisite: PSY 336 or graduate standing.

PSY 536 Personnel Psychology 3(3-0)
This course examines the identification, measurement, and development of individual differences, and job systems related to individual differences within organizations to improve job performance and satisfaction. Topics include job analysis, criterion development, personnel selection, training, and performance evaluation. Prerequisites: PSY 336, or graduate standing; Recommended: PSY 211.

PSY 537 Organizational Behavior Management 3(3-0)
Behavior analysis in business, industry, and human service settings. Applied research in organizations is emphasized. Empirical rather than theoretical approach. Prerequisites: PSY 336 or PSY 370 or PSY 384 or graduate standing.

PSY 538 Occupational Health Psychology 3(3-0)
The study of health and stress in organizations as a complex process, with analyses of resources, stressors, coping, stress responses, and consequences. Prerequisites: PSY 336 and 379, or graduate standing.

PSY 544 Theories of Personality 3(3-0)
Theories regarding the structure and functions of personality. Prerequisite: PSY 340.

PSY 555 Psychopathology of Children 3(3-0)
Problems of children deviating from the norm in behavior and adjustment. Prerequisites: PSY 220, PSY 250.

PSY 559 Rehabilitation Psychology 3(3-0)
Psychological concepts in understanding physical disability from the perspectives of the individual, family and society will be emphasized. Designed for advanced students in health professions. Prerequisites: PSY 100 and PSY 220; or graduate standing.

PSY 562 Therapeutic Intervention: Foundations 3(3-0)
Foundational skills for therapeutic intervention including theory and technique. Prerequisite: PSY 350 or graduate standing.

PSY 575 Autism Spectrum Disorder: Characteristics and Etiology 3(3-0)
This course will review the behavioral and educational characteristics of students with autism spectrum disorders. Known causes of this disorder will also be examined. Identical to SPE 530. Credit may not be earned in more than one of these courses. Prerequisites: senior or graduate status.

PSY 579 Behavioral Medicine 3(3-0)
Applications of 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 graduate standing.

PSY 583 Motivation and Emotion 3(3-0)
Survey of the theories, systems and concepts of motivation and emotion. Prerequisite: 15 hours of psychology; graduate standing.

PSY 584 Cognitive Neuroscience 3(3-0)
Converging evidence from human neuroanatomy and neurophysiology, cognitive psychology, neuropsychology, and neuroimaging research will be examined for topics in attention, perception, memory, language, and emotion. Prerequisites: PSY 387 or graduate standing.

PSY 585 Psychophysiology 3(3-0)
Introduction to psychophysiological methods, measures, and applications. Topics include: basic neuroanatomy and neurophysiology; electrophysiological recording; inference using brain, cardiovascular, somatic measures; biofeedback; ergonomic, and other applications. Prerequisite: PSY 387 or graduate standing.

PSY 586 Applied Behavioral Analysis in Education 3(3-0)
Behavior modification techniques in the areas of motivation, elimination of undesirable behaviors, promotion of academic participation, and definition of behavioral objects. Prerequisites: PSY 100, and upper-division or graduate standing.

PSY 587 Physiological Psychology 3(3-0)
Physiological events which underlie human and animal behavior. Prerequisite: PSY 387 or graduate standing.

PSY 588 Functional Neuroanatomy 3(3-0)
Function of the nervous system in behavior. Emphasis is on how various CNS structures function to mediate behavior. Prerequisite: PSY 387 or 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.

PSY 600 Special Issues 1-12(Spec)
Subjects of contemporary psychology not covered by regular curriculum. Prerequisite: See class schedule.

PSY 605 Assessment of Affective and Behavioral Disorders of Children and Youth 3(3-0)
Assessment measures and procedures for emotional and behavioral disorders of children and adolescents will be addressed with an emphasis on linking assessment to intervention. Prerequisite: matriculation in the School Psychology program or the Clinical Psychology program.

PSY 609 History and Systems of Psychology 3(3-0)
Modern psychology is analyzed by tracing its historical roots and early systems. Emphasis is on the influence of historical systems on current areas of specialization.
PSY 611 Research Design 3(3-0)
Common types of analysis of variance, multiple comparisons tests, the analysis of covariance. Prerequisite: PSY 511.

PSY 612 Applied Multiple Regression and Correlation 3(3-0)
A study of the general linear model as applied to multiple regression and the analysis of variance. Prerequisites: PSY 211 and permission of instructor.

PSY 613 Multivariate and Correlational Methods 3(3-0)
A survey of multivariate statistical procedures, including multiple regression and correlation, canonical and discriminant analysis, multivariate analysis of variance, and factor analysis. Prerequisites: PSY 612.

PSY 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

PSY 624 Advanced Developmental Psychology 3(3-0)
Basic theory and principles of life-span developmental psychology. Prerequisite: matriculation in psychology graduate program.

PSY 630 Advanced Social Psychology 3(3-0)
Intensive examination of the major theories and experiments of social psychology. Prerequisite: matriculation in psychology graduate program.

PSY 636 Organizational Applications of Personnel Psychology 3(3-0)
This course examines major ideas, assumptions, and technologies in personnel psychology, the implementation and utilization of personnel technologies, and selected current topics. Prerequisites: graduate standing and PSY 536.

PSY 641 Objective Personality Assessment 3(2-2)
Survey of concepts, procedures, and issues in personality assessment. Prerequisites: PSY 544, matriculation in the School of Clinical psychology graduate programs.

PSY 642 Clinical Research Methods 3(3-0)
Provides a basis for designing and executing clinical research and data analysis. Prerequisites: Matriculation into the Ph.D. program in Clinical Psychology at CMU or approval from the instructor.

PSY 653 Intervention I: Adult 3(3-0)
Survey of different therapeutic approaches and techniques. Prerequisite: admission to the Doctoral Program in Clinical Psychology.

PSY 655 Introduction to Intelligence Testing 2(2-2)
Administration and interpretation of individual intelligence scales. Lab fee prorated among class members after registration. Prerequisite: permission of instructor.

PSY 656 Advanced Intellectual Assessment 2(2-2)
Report writing, interpretation of intelligence tests, and integration of testing with other assessment devices used in diagnosis of emotional and learning problems. Prerequisites: PSY 655 and permission of instructor.

PSY 657 Assessment I: Adult 3(3-1)
Administration and interpretation of intelligence scales, report writing, and integration of intellectual testing with other assessment devices. Prerequisite: matriculation in Clinical Psychology program.

PSY 658 Assessment II: Child and Adolescent 3(3-1)
Intelligence and personality assessment of children and adolescents. Prerequisite: admission to the doctoral program in Clinical Psychology.

PSY 660 Intervention II: Child and Adolescent 3(3-0)
Introduction to therapeutic interventions for children and adolescents. Prerequisite: admission to the doctoral program in Clinical Psychology.

PSY 661 Neuropsychological Assessment 3(3-0)
Introduction to neuropsychological assessment of behavior with emphasis on instrument, research, and interpretation. Prerequisite: PSY 587 or PSY 687.

PSY 662 Advanced Therapeutic Interventions 3(3-1)
The practice and application of therapeutic intervention with children, birth through high school. Takes a developmental perspective on children's problems. Prerequisites: PSY 562 and concurrent enrollment in PSY 791.

PSY 667 Assessment and Development of Academic Skills I 3(3-1)
Administration and interpretation of special diagnostic testing of children with learning difficulties. Lab fee. Prerequisite: PSY 577.

PSY 677 Assessment and Development of Academic Skills II 3(3-0)
Principles underlying development and evaluation of academic interventions and critique of current programs and procedures designed to improve academic performance of K-12 children. Prerequisite: matriculation in Psychology graduate program.

PSY 680 Learning 3(3-0)
Theory and research in basic learning phenomena including classical, operant, and complex behavior. Prerequisite: permission of instructor.

PSY 681 Sensation and Perception 3(3-0)
Cognitive, neuroscience, psychophysical, and behavioral analysis of perceptual systems. Vision and audition are emphasized. Prerequisite: Permission of instructor.

PSY 682 Psychology of Child Development 3(3-0)
Identical to EDU 682. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: Graduate status.

PSY 686 Engineering Psychology 3(3-0)
An overview of the discipline of engineering psychology including the topics of human error and applications of perception and cognition in human-machine systems. Prerequisite: graduate standing in Psychology.

PSY 687 Physiological Foundations 3(3-0)
Extensive survey of knowledge of the physiological, anatomical, and hormonal events underlying human behavior, emphasizing brain function and neurochemical factors.

PSY 690 Research Seminar: Experimental Psychology 1-3(Spec)
Study of problems and issues in experimental psychology under faculty guidance via lecture and/or seminar format. CR/NC only.
PSY 696 Directed Research 1-12(Spec)
   For students who desire to investigate some research problem in psychology. Prerequisite: must file written proposal approved by faculty sponsor in departmental office prior to registration.

PSY 697 Independent Study 1-8(Spec)
   For students who accept responsibility for studying a psychological problem of their own. Prerequisite: must file written proposal approved by faculty sponsor in departmental office prior to registration.

PSY 700 Special Issues 1-12(Spec)
   Special topics in contemporary psychology. May be repeated to a maximum of 12 hours, but no more than 3 hours may be taken per semester. Prerequisites: admission to doctoral candidacy in psychology; see class schedule.

PSY 724 Psychology of Aging 3(3-0)
   This course examines theories of adult development and how those theories are related to important issues affecting older adults. Prerequisite: graduate standing.

PSY 727 Developmental Neuropsychology 3(3-0)
   Introduction to neuropsychological assessment of children with emphasis on instruments, research and interpretation. For advanced graduate students. Prerequisites: PSY 661 or PSY 655 or PSY 657.

PSY 736 Strategies for Interventions in Social Systems 3(Spec)
   Study of various social technologies of intervention, and the evaluation of a range of these methods. Prerequisite: matriculation in professional psychology doctoral program.

PSY 737 Seminar in I/O Psychology 3-12(Spec)
   Exploration of specialized areas in the field of I/O Psychology. This course is taken as a three credit course and may be repeated for a maximum of twelve hours. Prerequisite: Admission to masters or doctoral programs in I/O Psychology.

PSY 751 Psychopathology 3(3-0)
   A course in descriptive psychopathology with an emphasis on understanding the manifestations of disordered functioning within a variety of cultural and contextual constraints. Prerequisite: admission into a graduate program in psychology.

PSY 760 Seminar A: School Services 3(3-0)
   Philosophical rationale for development of school psychology as major discipline. Role of school psychologist, and legal and ethical issues that affect the role are discussed. Prerequisite: permission of instructor.

PSY 765 Seminar: Ethics and Professional Issues 3(3-0)
   Problems and issues in the practice of professional psychology. Prerequisite: matriculation in school psychology subdoctoral program or professional psychology doctoral programs.

PSY 766 Seminar: Consultation Skills 3(Spec)
   Objectives of and strategies in consultation are studied with practice and evaluation of methods in actual work settings. Prerequisite: Advanced graduate standing in psychology.

PSY 767 Assessment and Intervention for Developmental Disabilities 3(3-0)
   Procedures and background issues for psychoeducational assessment and intervention for infants, children, and adolescents who are emotionally-, visually-, hearing-, motorically-, or mentally-impaired or autistic. Prerequisite: PSY 667.

PSY 780 Behavior Therapy 3(2-2)
   Assumptions and principles of behavioral analysis and the strategies used in a variety of behavioral disorders. Prerequisite: matriculation in psychology graduate program.

PSY 781 Seminar: Perception 4(Spec)
   Detailed treatment of selected research areas in perception. Emphasis is on perceptual data and measures and their application to real world situations. Prerequisites: PSY 681 or PSY 686.

PSY 785 Seminar: Cognitive-Behavior Therapy 3(3-0)
   A graduate seminar focusing on the development and implementation of cognitive-behavioral interventions for the remediation of a variety of psychiatric disorders. Prerequisite: permission of instructor.

PSY 789 Seminar in Applied Experimental Psychology 1-9(Spec)
   Exploration of specialized areas in the field of Applied Experimental Psychology through the review of the primary literature. May be repeated to a maximum of 9 hours, but no more than 3 hours may be taken per semester. Prerequisite: permission of instructor.

PSY 790 Practicum I A: Professional Services 3(Spec)
   Practice needed to function as a competent psychologist within a variety of professional settings. Prerequisites: Admission to Clinical Psychology or Industrial/Organizational Psychology or School Psychology.

PSY 791 Practicum I B: Professional Services 3(Spec)
   Continuation of 790. Prerequisites: A grade of B or better in PSY 790.

PSY 792 Supplemental Supervision 1-3(Spec)
   Supplemental supervision arranged with clinical or school supervising faculty. For students with special interests. Prerequisites: matriculation in clinical or school psychology graduate programs, enrollment in one of the practica, and permission of the instructor.

PSY 795 Internship in School Psychology A 3(Spec)
   The first semester of a 1200 hour full-time experience in a school setting supervised by an approved school psychologist and on-campus faculty. Prerequisites: PSY 790 and PSY 791; permission of instructor.

PSY 796 Internship in School Psychology B 3(Spec)
   Continuation of 795. The second semester of a 1,200 hour full-time experience in a school system. Prerequisite: PSY 795.

PSY 798 Thesis 1-6(Spec)
   CR/NC only.

PSY 800 Research in Applied Experimental Psychology 1-12(Spec)
   Directed research course in which students work in close collaboration with instructor on a research topic in the area of applied experimental psychology. May be repeated to a maximum of 12 hours. Prerequisites: permission of instructor; students should have graduate standing, and have completed most, if not all, of the requirements for the M.S. degree in General/Experimental Psychology.

PSY 818 Program Evaluation 3(Spec)
   Design and implementation of program evaluation research in professional settings with a focus on how to evaluate such research. Prerequisites: matriculation in graduate program, PSY 612.
PSY 850 Ethnic and Minority Issues in Therapy 3(3-0)
A graduate seminar addressing cultural issues in therapy with different ethnic and minority groups. Prerequisite: matriculated students in graduate programs.

PSY 890 Practicum II A: Professional Services 3(Spec)
Development of advanced competencies and expansion of a repertoire of skills in the delivery of psychological services. CR/NC only. Prerequisites: matriculation in psychology doctoral program and permission of instructor.

PSY 891 Practicum II B: Professional Services 3(Spec)
Continuation of PSY 890. CR/NC only. Prerequisites: matriculation in psychology doctoral program and permission of instructor.

PSY 892 Practicum III A: Professional Services 3(Spec)
Further development of advanced competencies and a repertoire of psychodiagnostic, psychotherapy, interviewing, and consultation skills in the delivery of psychological services. CR/NC only. Prerequisites: matriculation in the professional psychology doctor program, PSY 780, PSY 791, PSY 890, PSY 891, and permission of instructor.

PSY 893 Practicum III B: Professional Services 3(Spec)
Continuation of PSY 892. CR/NC only. Prerequisites: PSY 892 and permission of instructor.

PSY 898 Doctoral Dissertation: Design 3-12(Spec)
Design of a doctoral dissertation. CR/NC only. Prerequisite: matriculation in psychology doctoral program.

PSY 899 Doctoral Dissertation: Implementation 3-12(Spec)
Completion of the doctoral dissertation designed in PSY 898: data collection, analysis, and write-up. CR/NC only. Prerequisite: PSY 898.

PSY 990 Internship A: Professional Services 3-6(Spec)
Development of advanced competencies in psychological services, program development evaluation, needs assessment and/or delivery systems; PSY 990-991 constitutes a full-time year-long experience. CR/NC only. Prerequisites: Matriculation in psychology doctoral program, complete MA thesis, pass comprehensive exams, dissertation proposal completed and accepted, and permission of instructor.

PSY 991 Internship B: Professional Services 3-6(Spec)
Continuation of 990 as a full-time, year-long experience. CR/NC only. Prerequisites: Matriculation in psychology doctoral program, complete MA thesis, pass comprehensive exams, dissertation proposal competed and accepted and permission of instructor.

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**Department of Recreation, Parks, and Leisure Services Administration (RPL)**

**College of Education and Human Services**

**Robert Frost, Interim Chairperson,**
214 Finch, (989) 774-3858

**Lynn Dominguez,** Ph.D., Outdoor Recreation

**Robert Dvorak,** Ph.D., Outdoor Recreation

**Al Ellard,** Re.D., Recreation Administration

**Robert Frost,** M.A., Therapeutic Recreation

**Patricia Janes,** Ph.D., Commercial Recreation

**Timothy Otteman,** Ph.D., Programming and Event Management

**Dean Pybus,** Ph.D., Recreation Administration

**Mary Lou Schilling,** Ph.D., Therapeutic Recreation

The Department of Recreation, Parks, and Leisure Services Administration offers a Master of Arts degree in Recreation, Parks, and Leisure Services Administration, with options in Recreation and Parks Administration and Therapeutic Recreation. The Department also offers a concentration on the Master Science in Administration program, an interdisciplinary degree.

The graduate programs in Recreation, Parks, and Leisure Services Administration are strengthened by the diverse academic and professional background of the faculty. The faculty members provide information, suggest areas of study and research, and furnish expertise in the areas of park and recreation administration, including organization, legislation, personnel management, financing and marketing; and therapeutic recreation including administration, programming, federal regulations, and advocacy.

Graduates of the department have been well accepted in the professional fields as well as at doctoral level programs at other institutions. Over 750 graduates of these master’s programs are now located throughout the United States.

Graduate assistantships are available in the RPL Department. Opportunities may involve research, teaching assignments, assisting in the management of the undergraduate internship programs, Adventure Seminar supervision, or external assignments in area communities. Contact the Graduate Coordinator for further information. Refer to the department website (www.rpl.cmich.edu).

The graduate program continues to evolve to meet the changing needs in the profession of recreation, parks, and leisure services.

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**Master of Arts (M.A.) in Recreation and Parks Administration or Therapeutic Recreation**

**Minimum Totals for Graduation:** 33 hours

**Admission Requirements, Retention & Termination Standards**

The student must meet the general requirements for admission to the College of Graduate Studies. In addition, applicants for admission to the RPL programs must:

A. Have a bachelor’s degree with:

1. a major in Recreation, Parks, and Leisure Services Admin. on campus (or similarly titled program) with appropriate concentration, or
2. a degree in another area with attained competencies commensurate with a RPL degree.

B. Have a grade point average of 3.0 over the last 60 hours of undergraduate work.

C. Submit two references for academic potential and two references for human service abilities.

D. Submit a written candidate’s paper, discussing professional/career goals in relation to the graduate program in RPL at CMU and identifying and discussing prior experiences relevant to proposed program and professional/career goals.

Forms are available from the RPL Graduate Coordinator or on the department website (rpl.cmich.edu).

Conditional Admission

A. If the student has insufficient background in RPL, that applicant must complete 3-12 credits of undergraduate course work in RPL, which is determined by the student and graduate advisor.

B. If the last 60 hours GPA is below 3.0, the student must attain a GPA of 3.00 in the first 12 semester hours of graduate courses.

Degree Requirements

Core Courses (9-12 hours)

Select hours (based on entry-level competencies)

- PES 670/HSC 670 - Research Methods for Physical Education and Sport, Health and Recreation 3(3-0)
- RPL 605 - Administration of Leisure Services Systems 3(3-0)
- RPL 611 - Evaluation in Recreation and Leisure Services 3(3-0)
- RPL 618 - Issues in Leisure 3(3-0)

Concentration

Select one of the following:

Recreation and Park Administration Concentration

Required Courses (6-9 hours)

Select from the following:

- PES 672 - Statistics for Physical Education and Sport, Health and Recreation 3(3-0)
- RPL 508 - Budgeting for Leisure Service Agencies 3(3-0)
- RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
- RPL 521 - Fund Development & Grant Writing for Public & Non-Profit Organizations 3(3-0)
- RPL 545 - Marketing of Leisure Services 3(3-0)
- RPL 552 - Environmental Interpretation 3(3-0)
- RPL 620 - Planning for Parks and Recreation Facilities 3(3-0)

Other courses may be selected in consultation with advisor.

Note: PES 672 is required for students completing a thesis for the Scholarly Option.

Therapeutic Recreation Concentration

Required Courses (6 hours)

Select from the following:

- PES 672 - Statistics for Physical Education and Sport, Health and Recreation 3(3-0)
- RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
- RPL 521 - Fund Development & Grant Writing for Public & Non-Profit Organizations 3(3-0)
- RPL 580 - Programming for Therapeutic Recreation 3(3-0)
- RPL 581 - Therapeutic Recreation Issues and Trends 3(3-0)

Other courses may be selected in consultation with advisor.

Note: PES 672 is required for students completing a thesis for the Scholarly Option.

National Certification:

For national certification, a Therapeutic Recreation student must have an internship/practicum; complete a total of 18 semester units in therapeutic recreation and general recreation content coursework with no less than a minimum of 9 of those units completed in therapeutic recreation content (each content course must be taken for a minimum of 3 units); a total of 18 semester units of support coursework in the professional academic path with a minimum of 3 semester hours in anatomy and physiology, 3 semester hours in abnormal psychology, and 3 semester hours in human growth and development. The remaining semester hours must be fulfilled in supportive courses from any of the following: psychology, sociology, adapted PE, biological/physical sciences, human services, or special education. (This is not required for graduation in the TR curriculum, but is required if one desires to apply for certification as a Certified Therapeutic Recreation Specialist).

Scholarly Option (6 hours)

Select one of the following:

- RPL 698 - Graduate Internship 1-6(Spec)
- RPL 699 - Graduate Project 1-6(Spec)
- RPL 798 - Thesis 1-6(Spec)

Electives (6-9 hours)

Selected in consultation with advisor.

Total: 33 semester hours

Master of Science in Administration (M.S.A.)

Concentration in Recreation and Parks Administration

The Master of Science in Administration Program requires 36 Credit Hours of graduate study. The MSA Program provides students with the fundamental principles required for successful Recreation and Parks Administrative careers in the public, private, or nonprofit sectors.

The required core courses of the MSA program (15-21 Credit Hours) provide a comprehensive overview of organizational and human relationships and the administrative mechanisms through which to make sound analytical judgments and decisions.

The Recreation and Parks Administration Concentration (15-18 Credit Hours) is designed to provide students with administrative and management background and competencies associated with local parks and recreation agencies including organizational structure, strategic planning, personnel management, evaluation, risk management, budgeting and finance, marketing, local, state and federal regulations, advocacy, and current issues.

Please go to page 214 for core courses and concentrations or to www.grad.cmich.edu/MSA/.

Course Descriptions: RPL

RPL 508 Budgeting for Leisure Service Agencies 3(3-0)

Basic budgetary principles and procedures for leisure service agencies. Prerequisite: RPL 204 or 210 or 216 or 261 or graduate status.
RPL 511 Liability and Risk Management in Leisure Services 3(3-0)
Situational analysis of the legal systems impacting the delivery of recreation and leisure services. Emphasis on applied legal understanding and loss control strategies. This course is approved for offering in a distance learning format. Prerequisites: 6 credits in RPL or signed Event Management Minor or Graduate Status.

RPL 518 Research & Philosophy in RPL 3(3-0)
This course explores the philosophical, social, and historical foundations of parks, recreation and leisure. Develops skills for research in leisure service settings. Prerequisites: 14 credits in RPL or graduate status.

RPL 521 Fund Development & Grant Writing for Public & Non-profit Organizations 3(3-0)
Processes, procedures, and applied skills for grant writing and fund development for public and non-profit organizations. Prerequisites: RPL 405 or 508 or senior or graduate status.

RPL 545 Marketing of Leisure Services 3(3-0)
Provides a basis for applying marketing principles and techniques to the provision of leisure service experiences. Prerequisites: 6 credits in RPL or signed Event Management minor or graduate status.

RPL 552 Environmental Interpretation 3(3-0)
Development of the skills to produce and implement interpretive programs in parks, camps, natural areas, and visitor and nature centers located in urban and rural areas. Prerequisites: RPL 358 or Graduate status.

RPL 580 Programming for Therapeutic Recreation 3(3-0)
Programming techniques for Therapeutic Recreation. Prerequisites: RPL 210 or graduate status. Co-requisites: Two of the following: RPL 340, 341, 342, 344, 345.

RPL 581 Therapeutic Recreation: Issues and Trends 3(3-0)
Current issues and trends related to therapeutic recreation service delivery including: professional credentialing, third-party reimbursement, accreditation standards, legislation, ethics, and other administrative issues. Prerequisite: RPL 210 or graduate status. Co-requisites: Two of the following RPL 340, 341, 342, 344, 345.

RPL 600 Advanced Issues in Recreation 1-6(Spec)
Advanced concentration study of a current recreation or park administration problem or issue.

RPL 603 Advanced Independent Reading in Recreation 1(Spec)
Exploration of one or more aspects of the recreation, parks, and leisure services profession through individual study.

RPL 605 Administration of Leisure Services Systems 3(3-0)
The administrative aspects of operating recreation, parks, and leisure services systems. Emphasis on advanced administrative principles, practices, methods, and issues.

RPL 610 Leisure Research 1(1-0)
Introduction to leisure research methodology.

RPL 611 Evaluation in Recreation and Leisure Services 3(3-0)
A study of evaluation and its application to the field of recreation and leisure services.

RPL 615 Practicum in Recreation Supervision and Administration 1-6(Spec)
Supervised and practical experience in some facet of recreation or park administration or supervision. Not applicable for RPL Masters candidates, except to fulfill requirement deficiencies. CR/NG only. Prerequisite: Permission of instructor.

RPL 618 Issues in Leisure 3(3-0)
Theories of leisure behavior and current issues and trends in leisure. Topics discussed are dependent upon interests of students enrolled in class. Recommended: RPL 518.

RPL 619 Continuing Registration for Final Research Project 1(1-0)
Non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

RPL 620 Planning for Parks and Recreation Facilities 3(3-0)
Principles and procedures in the planning, development, and maintenance of park and recreation areas and facilities.

RPL 636 Recreation Facility Operations and Management 3(3-0)
Administrative practices for the management and operations of areas and facilities for recreation and leisure services. Prerequisites: none.

RPL 652 Outdoor Recreation 3(3-0)
Focus on state, national, and international agencies involved in the provision of programs and services for outdoor recreation.

RPL 698 Graduate Internship 1-6(Spec)
Advanced internship experience, performed under a certified or trained professional in a recreation/leisure setting for a 15-week period. Prerequisite: Permission of instructor.

RPL 699 Graduate Project 1-6(Spec)
Student proposes, implements, and evaluates an advanced, in-depth administrative or supervisory level applied project. Prerequisite: Permission of instructor.

RPL 791 Independent Study 2(Spec)
Independent research in a topic of interest. Topic must be approved prior to enrollment. Not open to students taking RPL 798. Prerequisite: Permission of instructor. Recommended: PES 670 or HEV 597.

RPL 798 Thesis 1-6(Spec)
A written thesis and oral defense of research conducted in the leisure services field. The thesis must be approved by the candidate’s graduate committee and advisor. Not open to students enrolled in RPL 791. Prerequisite: Permission of instructor. CR/NC only.
School of Rehabilitation and Medical Sciences (PHA, PTH)
The Herbert H. and Grace A. Dow College of Health Professions

Herman Triezenberg, Chairperson
HPB 1232, (989) 774-2347

Elaine Betts, P.T., P.Ph.D.
Gail Capehart, P.T., MSA
Clinton Cornell, PA-C, M.S.
Nancy Epstein, P.T., M.A., PCS
Michael Fillenworth, PA-C, M.S.
Karen Grossnickle, P.T., M.S.
Ahmad Hakemi, M.D.
Jay T. Hoffman, D.O., M.S.
John E. Lopes, Jr., DHSC, PA-C
Peter Loubert, P.T., Ph.D.
Heather Mata, PA-C, MPAS
Elizabeth Mostrom, P.T., Ph.D.
Ron Nelson, PA-C
Jan Perkins, P.T., Ph.D.
Erin Sherer
Deb Silkwood-Sherer, P.T., M.S.
Matthew Stark
Herman Triezenberg, P.T., Ph.D.
Ksenia Untinova, Ph.D.
J. Tim Zipple, P.T., M.S., OCS, OM

Master of Science (M.S.) in Physician Assistant Program

Minimum Totals for Graduation: 120 hours

Admission Requirements, Retention & Termination Standards

Admission for 2010 Entering Class

Please reference the PA Admission website http://www.cmich.edu/chp/x577.xml to determine application requirements. The application deadline for the 2010 entering class is October 1, 2009, which is a “firm” deadline. GRE and TOEFL (if applicable) scores must be submitted directly to CMU’s College of Graduate Studies and received by October 1. Admission to the program is competitive. Contact The Herbert H. and Grace A. Dow College of Health Professions Admissions Office at 989-774-1730 or at chpadmit@cmich.edu for further information.

To be eligible for admission, a prospective student must:
1. Complete a minimum of 100 paid direct patient care hours.
2. Students must have completed or be in the final stages of completing an undergraduate degree.
3. Complete the prerequisite courses.
4. Obtain a minimum of 3.0 in all prerequisite courses.
5. Obtain an overall, undergraduate cumulative GPA of at least 3.0.
6. Submit GRE scores (or TOEFL scores if applicable).

Prerequisite Courses for Physician Assistant Program

Listed below are the prerequisite courses that must be completed before beginning the Physician Assistant program. Students completing the prerequisites at other universities are encouraged to contact The Herbert H. and Grace A. Dow College of Health Professions Admissions Office (989-774-1730) to determine course equivalencies. The final decision regarding whether a course satisfies a prerequisite will be determined by the program director of the Physician Assistant Program.

At CMU, these prerequisites are met by:
- Anatomy: BIO 337 OR HSC 214
- Physiology: BIO 392 OR HSC 215
- Pathophysiology: HSC 411
- Chemistry Courses:
  - General Chemistry: CHM 120 and 127 OR CHM 131 and 132
  - Organic Chemistry: CHM 342
- Biochemistry: CHM 421
- Psychology Courses:
  - Introductory Psychology: PSY 100
  - Developmental Psychology: PSY 220
- Statistics Courses:
  - Biostatistics: HSC 544 OR BIO 500

Like all programs that have competitive admissions, students meeting the admission criteria are not guaranteed admission to the program.

Degree Requirements

First Year - Summer (15 hours)
- HSC 630 - Regional Human Anatomy 5(3-4)
- PHA 624 - Issues in Practice 2(2-0)
- PHA 630 - Clinical Procedures I 3(2-2)
- PHA 660 - History and Physical Examination I 3(2-2)
- PHA 671 - Preventive Medicine 1(1-0)
- PHA 672 - Applied Ethics for Physician Assistants 2(2-0)

First Year - Fall (22 hours)
- PHA 608 - Clinical Medicine I 4(4-0)
- PHA 620 - Infectious Diseases 3(3-0)
- PHA 625 - Clinical Pharmacology I 3(3-0)
- PHA 631 - Clinical Procedures II 3(0-6)
- PHA 640 - Clinical Problem Solving I 3(0-11)
- PHA 650 - Diagnostic Tests I 2(2-0)
- PHA 661 - History and Physical Examination II 3(2-2)

First Year - Spring (25 hours)
- PHA 609 - Clinical Medicine II 4(4-0)
- PHA 614 - Pediatrics 3(3-0)
- PHA 626 - Clinical Pharmacology II 3(3-0)
- PHA 631 - Clinical Procedures II 3(0-6)
- PHA 641 - Clinical Problem Solving II 3(0-11)
- PHA 651 - Diagnostic Tests II 2(2-0)
- PHA 662 - History and Physical Examination III 4(2-4)
- PHA 673 - Psychiatry 3(3-0)

Second Year - Summer (20 hours)
- PHA 610 - Clinical Medicine III 3(3-0)
- PHA 614 - Pediatrics 3(3-0)
- PHA 616 - Surgery 2(2-0)
- PHA 618 - Emergency Medicine 2(2-0)
- PHA 631 - Clinical Procedures II 3(0-6)
- PHA 635 - Scientific Basis of Medicine III 2(2-0)
- PHA 642 - Clinical Problem Solving III 3(0-11)
- PHA 652 - Diagnostic Tests III 2(1-2)

(continued)
Second Year - Fall (16 hours)
PHA 690 - Clinical Education I 16(0-40)

Second Year - Spring (16 hours)
PHA 691 - Clinical Education II 16(0-40)

Third Year - Summer (16 hours)
PHA 692 - Clinical Education III 16(0-40)

Total: 130 semester hours

Course Descriptions: PHA

PHA 608 Clinical Medicine I 4(4-0)
A comprehensive survey course that studies prioritized medical topics within organ systems. The systems covered are otolaryngologic, ophthalmologic, cardiovascular and respiratory systems. Prerequisites: admittance to the Physician Assistant program.

PHA 609 Clinical Medicine II 4(4-0)
A comprehensive survey course that studies prioritized medical topics within organ systems. The systems covered are the gastrointestinal, hepatobiliary, genitourinary, endocrine, hematological systems and oncology. Prerequisites: admittance to the Physician Assistant program and PHA 608.

PHA 610 Clinical Medicine III 3(3-0)
A comprehensive survey course that studies prioritized medical topics within organ systems. The topics covered are the immunologic, musculoskeletal and neurologic systems and geriatrics. Prerequisites: admittance to the Physician Assistant program and PHA 609.

PHA 612 Obstetrics/Gynecology 3(3-0)
Prioritized instruction in normal function and selected medical conditions in women's health including pregnancy, childbirth, neoplasm and endocrine changes. Prerequisites: admittance to the Physician Assistant program.

PHA 614 Pediatrics 3(3-0)
A survey course of growth, development and diseases from birth to adolescence. It prepares students for the primary care setting. Prerequisites: admittance to the Physician Assistant program.

PHA 616 Surgery 2(2-0)
Survey course that focuses on pre-, peri- and postoperative care and medical considerations of the surgical patient and prepares the student for the clinical setting. Prerequisites: admittance to the Physician Assistant program.

PHA 618 Emergency Medicine 2(2-0)
Survey course that familiarizes the student with common emergency medicine problems and injuries utilizing a priority system. Prerequisites: Admittance to the Physician Assistant Program.

PHA 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

PHA 620 Infectious Diseases 3(3-0)
A comprehensive survey course on the diagnosis and treatment of infectious diseases seen in primary care medicine and organized by organ system. Prerequisites: admittance to Physician Assistant program.

PHA 624 Issues in Practice 2(2-0)
Topics concerning physician assistant professional practice. CR/NC only. Prerequisites: Admission to the Physician Assistant Program.

PHA 625 Clinical Pharmacology I 3(3-0)
Survey clinical course that emphasizes principles of pharmacology, pharmacokinetics and pharmacotherapy as they relate to drugs in the treatment of common primary care conditions. Prerequisites: admittance to Physician Assistant program.

PHA 626 Clinical Pharmacology II 3(3-0)
This clinical survey course continues instruction in pharmacology of select drugs, prescription essentials general pharmacology resources for the primary care practitioner. Prerequisites: admittance to Physician Assistant program, PHA 625.

PHA 630 Clinical Procedures I 3(2-2)
Integrated didactic and laboratory course which develops medical procedural diagnostic and therapeutic skills. This prepares the student for the clinical setting. CR/NC only. Prerequisite: admission to the Physician Assistant program.

PHA 631 Clinical Procedures II 3(0-6)
A two module course consisting of Advanced Cardiac Life Support and Pediatric Advanced Life Support. CR/NC only. Prerequisite: Admission to the Physician Assistant Program.

PHA 633 Scientific Basis of Medicine I 2(2-0)
An in-depth review of the normal and abnormal physiologic processes associated with diseases of the cardiac and pulmonary organ systems. Prerequisites: Admission to the Physician Assistant Program.

PHA 634 Scientific Basis of Medicine II 2(2-0)
An in-depth review of the normal and abnormal physiologic processes associated with diseases of the renal, neurological, and endocrine system. Prerequisites: Admission to the Physician Assistant Program.

PHA 635 Scientific Basis of Medicine III 2(2-0)
An in-depth review of the normal and abnormal physiologic processes associated with diseases of the gastrointestinal system, immune system, heritable conditions, and spontaneous genetic abnormalities. Prerequisites: Admission to the Physician Assistant Program

PHA 640 Clinical Problem Solving I 3(0-11)
Onsite interactive group problem solving sessions and offsite patient/preceptor clinical interactions. Both modes develop clinical diagnostic reasoning by focusing on a hypothetic-deductive approach. Prerequisites: admission to the Physician Assistant program; successful completion of the didactic portion of the curriculum.

PHA 641 Clinical Problem Solving II 3(0-11)
Onsite interactive group problem solving sessions and offsite student/preceptor clinical interactions. Both modes develop clinical diagnostic reasoning by focusing on a hypothetic-deductive approach. Prerequisites: admission to the Physician Assistant program; successful completion of PHA 640.

PHA 642 Clinical Problem Solving III 3(0-11)
Onsite interactive problem solving sessions and offsite student/preceptor clinical interactions. Both modes develop clinical diagnostic reasoning by focusing on a hypothetic-deductive approach. Prerequisites: admission to the Physician Assistant program; successful completion of PHA 641.

PHA 645 Critical Appraisal of Medical Literature and Evidence-Based Medicine 2(2-0)
Students will develop the ability to critically analyze current and past medical research and publications, and apply those concepts to the practice of Evidence-Based Medicine. Prerequisites: Admission into the Physician Assistant Program.

PHA 650 Diagnostic Tests I 2(1-2)
An introduction to the indications for and interpretation of the chest radiograph and electrocardiogram. Prerequisites: Admission into the Physician Assistant Program.
**Doctor of Physical Therapy (DPT)**

Herm Trizenberg, Director  
HPB 1232, 774-2347

**Minimum Totals for Graduation: 118 - 131 hours**

**The Program**

The professional curriculum in physical therapy is three years in length. Students are eligible to apply for admission to the Doctoral Program in Physical Therapy following the completion of undergraduate coursework. Students must complete both the requirements for their undergraduate major and the physical therapy prerequisite courses before entering the program. At the completion of the professional program, the student will receive a Doctor of Physical Therapy (D.P.T.). In the undergraduate preparation phase, the student can enroll in one of a number of appropriate undergraduate majors. Some suggested undergraduate majors include health fitness in preventive and rehabilitation programs, athletic training, health administration, biology, psychology, child development, and therapeutic recreation. Students must contact an advisor from their chosen undergraduate major during their first semester to identify the coursework that is needed for their undergraduate degree. Students also need to incorporate into their undergraduate program a series of prerequisite courses that are required to prepare them for the coursework in the graduate program in physical therapy.

**Admission Requirements, Retention & Termination Standards**

**Admission to the Professional Curriculum**

The Doctor of Physical Therapy Program has transitioned to PTCAS (Physical Therapy Centralized Application Service), an online application service, beginning with the May 2010 application cycle. For complete instructions on the application process, go to the Physical Therapy Application Requirements web-page: [http://www.cmich.edu/chpx16749.xml](http://www.cmich.edu/chpx16749.xml).

To be eligible for admission students must complete the following requirements:


2. Complete a minimum of 50 hours of volunteer/career exploration or paid work in physical therapy clinic. Experience in at least 2 different settings is required.

3. Complete all prerequisite courses before entry into the program.

4. Maintain a minimum GPA of 3.0 in all prerequisite courses with no grade below a 2.0 in any prerequisite course.

5. Complete undergraduate degree with a minimum GPA of 3.0.

6. Students must submit their GRE scores.

Application deadline is October 1, 2009 for the class beginning in May, 2010.

Admission into the Doctoral Program in Physical Therapy is competitive. Students should contact The Herbert H. and Grace A. Dow College of Health Professions Admissions office for specific information or questions on this process. (989) 774-1730.

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**PHA 651 Diagnostic Tests II 2(2-0)**

Indications for and interpretation of laboratory, pulmonary function, and neurophysiologic testing. Prerequisites: PHA 650.

**PHA 652 Diagnostic Tests III 2(1-2)**

Indications for and interpretation of imaging of the central nervous system, vascular system, abdomen and extremities. Principles of nuclear medicine, magnetic resonance, and computed tomography. Prerequisites: PHA 651.

**PHA 660 History and Physical Examination I 3(2-2)**

Integrated didactic/laboratory course. This course teaches assessment via the medical history with focus on interviewing skill and technique. It prepares students for the clinical setting. Prerequisites: admission to the Physician Assistant program.

**PHA 661 History and Physical Examination II 3(2-2)**

Integrated didactic/laboratory series that teaches patient assessment through the complete medical history and physical examination. It prepares students for the clinical setting. Prerequisites: admission to the Physician Assistant program; successful completion of PHA 660.

**PHA 662 History and Physical Examination III 4(2-4)**

Integrated didactic/laboratory series that teaches patient assessment through the complete medical history and physical examination. It prepares students for the clinical setting. Prerequisites: admission to the Physician Assistant program; successful completion of PHA 661.

**PHA 671 Preventive Medicine 1(1-0)**

This course introduces the principles of preventive medicine and methods for their incorporation into primary care on an individual, family and community basis. Prerequisites: Admission to the Physician Assistant program.

**PHA 672 Applied Ethics for Physician Assistants 2(2-0)**

This course enables the student to examine the principles of medical ethics, develop an organized process to resolve clinical dilemmas, and to explore future professional roles. Prerequisites: admission to the Physician Assistant program.

**PHA 673 Psychiatry 3(3-0)**

The course includes the identification and management of psychiatric disorders, with an emphasis on the pharmacological management of mood disorders. Prerequisites: admission to the Physician Assistant program.

**PHA 690 Clinical Education I 16(0-40)**

This course consists of a full-time clinical internship. CR/NC only. Prerequisites: admission to the Physician Assistant program; successful completion of didactic course work for Physician Assistant program.

**PHA 691 Clinical Education II 16(0-40)**

This course consists of a full-time clinical internship. CR/NC only. Prerequisites: admission to the Physician Assistant program; PHA 690.

**PHA 692 Clinical Education III 16(0-40)**

This course consists of a full-time clinical internship. CR/NC only. Prerequisites: admission to the Physician Assistant program; PHA 691.

**PHA 697 Special Topics for Physician Assistants 1-9(Spec)**

Presentation and examination of special topics in medicine, health, and biosciences. May be taken up to a maximum of 9 hours. Prerequisites: Entry into the Physician Assistant Program.
Retention and Dismissal

Students will be placed on probation for:
1. Any grade below a C (2.0) or NC (NC) in any course required in the PT professional curriculum will result in a student being placed on probation.
2. A semester GPA below 3.0 for courses required in the PT curriculum will result in a student being placed on probation.
3. A cumulative GPA below 3.0 for any semester will result in a student being placed on probation.
4. A student shows multiple academic or clinical deficits to a degree that makes it unlikely the student will be able to succeed in the remainder of the curriculum.
5. Accumulative GPA below 3.0 (graduate) in the professional portion of the physical therapy curriculum for two semesters.
6. Failure (NC) of clinical affiliation/internship courses.
7. Students who display a lack of professional conduct and/or any behavior patterns that may jeopardize the safety or well-being of patients or others; this includes students who do not demonstrate satisfactory performance or progress in Generic Abilities in academic or clinical courses.
8. Students who participate in unethical or illegal activity including, but not limited to, academic dishonesty or violations of the APTA Code of Ethics and Guide for Professional Conduct.

Degree Requirements

First Year I - Summer (8 hours)
HSC 630 - Regional Human Anatomy 5(3-4)
PTh 615 - Principles of Pharmacology 1(1-0)
PTh 619 - Human Physical Development 2(2-0)

First Year II - Fall (16 hours)
HSC 631/PES 631 - Physiology of Exercise 4(3-2)
PTh 617 - Clinical Pathophysiology I 1(1-0)
PTh 626 - Neuroanatomy in Physical Therapy 3(3-0)
PTh 635 - Examination and Diagnosis I 2(1-2)
PTh 645 - Patient Care I 5(3-4)
PTh 665 - Physical Therapy Seminar I 1(1-0)

First Year III - Spring (16 hours)
PTh 622 - Clinical Pathophysiology II 1(1-0)
PTh 633 - Clinical Education I 3(1-4)
PTh 636 - Examination and Diagnosis II 2(1-2)
PTh 646 - Patient Care II 5(3-4)
PTh 666 - Physical Therapy Seminar II 1(1-0)
PTh 672 - Clinical Anatomy and Kinesiology of Human Joints 4(3-3)

Second Year I - Summer (12 hours)
HSC 670/PES 670 - Research Methods for Health, Physical Education and Sport, Health and Recreation 3(3-0)
PTh 63<sup>4</sup> - Clinical Education II 6(Spec)
PTh 655 - Teaching and Learning in Physical Therapy 2(2-0)
PTh 661 - Manual Therapy I 1(0-2)

Second Year II - Fall (14 hours)
PTh 623 - Clinical Pathophysiology III 1(1-0)
PTh 690 - Motor Learning in Neurorehabilitation 2(2-0)
PTh 732 - Clinical Education III 3(1-4)
PTh 735 - Examination and Diagnosis III 2(1-2)
PTh 745 - Patient Care III 5(3-4)
PTh 765 - Physical Therapy Seminars III 1(1-0)

Second Year III - Spring (17 hours)
PTh 620 - Clinical Management of Geriatric Patients 2(2-0)
PTh 621 - Clinical Pediatrics 2(2-0)
PTh 624 - Clinical Pathophysiology IV 1(1-0)
PTh 662 - Manual Therapy II 2(0-4)
PTh 695 - Ethics in Physical Therapy 3(3-0)
PTh 736 - Examination and Diagnosis IV 2(1-2)
PTh 746 - Patient Care IV 4(3-2)
PTh 766 - Physical Therapy Seminars IV 1(1-0)

Third Year I - Summer (12 hours)
PTh 710 - Principles of Clinical Management 3(3-0)
PTh 825 - Health Promotion in Physical Therapy Practice 2(2-0)
PTh 850 - Evidence Based Practice in Physical Therapy 2(2-0)
PTh 860 - Health Informatics for Physical Therapists 2(2-0)
PTh 870 - Rehabilitation Care Management 3(3-0)

Third Year II - Fall (16 hours)
PTh 790 - Clinical Research I 4(4-0)
PTh 832 - Clinical Education IV 12(Spec)

Third Year III - Spring (16 hours)
PTh 890 - Clinical Research II 4(4-0)
PTh 932 - Clinical Education V 12(Spec)

Electives
3-4 hours of PTh electives.

Total: 118-131 semester hours

Note: The total number of credit hours required for completion of the program may be reduced by up to 12 credit hours based on a student’s prior course work or experiences. The previous course work or experience must have provided the student with the equivalent knowledge and skills presented in the specific required course(s) within the DPT curriculum. The faculty of the Physical Therapy Program will make the determination on whether a student's previous course work and experience are equivalent to the content of a specific course.

Additional Program Requirements:

Doctoral Research Project: Students must complete a Doctoral Research Project in Clinical Research I and II (PTh 790 and 890).

To fulfill the requirements for PTh 790 and 890 the student must complete either:
1. a prospective research project or
2. a clinical case report. Students must submit final manuscripts in publication form according to program guidelines.

At the completion of the professional curriculum, students will receive a Doctor of Physical Therapy (DPT) degree.

Accreditation

The physical therapy program at Central Michigan University is accredited by the Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association.
**Course Descriptions:** PTH

**PTH 615 Principles of Pharmacology 1(1-0)**
Provides students with an introduction to the principles of pharmacology with an emphasis on understanding how drug therapy is utilized in rehabilitation. Prerequisites: admission to Physical Therapy Program.

**PTH 617 Clinical Pathophysiology I 1(1-0)**
Study of the body's physiological responses to disease states with emphasis on the clinical management pertinent to physical therapy practice. Prerequisite: admission to the Physical Therapy program.

**PTH 618 Human Physical Development 2(2-0)**
Examination of life stages and their relationship to patient conditions seen in physical therapy. The developmental foundations of therapeutic procedures are discussed. Prerequisite: admission to the Physical Therapy program.

**PTH 619 Continuing Registration for Final Research Project 1(1-0)**
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

**PTH 620 Clinical Management of Geriatric Patients 2(2-0)**
Study of clinical management of geriatric patients. Physiological aspects of aging musculoskeletal, neurological, and cardiopulmonary systems are emphasized. Prerequisite: admission to the Physical Therapy program.

**PTH 621 Clinical Pediatrics 2(2-0)**
Students will learn evaluation procedures and strategies for clinical management of the pediatrics patient. Prerequisites: PTH 618, admission to the Physical Therapy program.

**PTH 622 Clinical Pathophysiology II 1(1-0)**
Study of physiological responses to disease states associated with the musculoskeletal system. Emphasis is placed on the clinical management pertinent to physical therapy practice. Prerequisites: PTH 622, admission to the Physical Therapy program.

**PTH 623 Clinical Pathophysiology III 1(1-0)**
Study of physiological responses to disease states associated with the nervous system. Emphasis is placed on the clinical management pertinent to physical therapy practice. Prerequisites: PTH 622, admission to the Physical Therapy program.

**PTH 624 Clinical Pathophysiology IV 1(1-0)**
Study of physiological responses to cancer and to diseases of the endocrine, cardiovascular, and respiratory systems. Physical therapy clinical management is emphasized. Prerequisites: PTH 623, admission to the Physical Therapy program.

**PTH 626 Neuroanatomy in Physical Therapy 3(3-0)**
An introduction to functional neuroanatomy as it relates to physical therapy. Case studies are used to relate implications of neurological lesions with physical therapy intervention. Prerequisites: admission to the Physical Therapy program.

**PTH 633 Clinical Education I 3(1-4)**
A mock clinic format is utilized to introduce the student to specific clinical situations and case studies. Problem-solving, interaction and technical skills analyzed. CR/NC only. Prerequisites: admission to the Physical Therapy program. Concurrent enrollment in PTH 646.

**PTH 634 Clinical Education II 6(Spec)**
This course provides one six-week full-time clinical experience for physical therapy students in physical therapy practice settings. Focus of experience is orthopedic disorders. CR/NC only. Prerequisites: PTH 633 and permission of instructor.

**PTH 635 Examination and Diagnosis I 2(1-2)**
Theory, concepts, and procedures central to examination and diagnosis of patients with dysfunctions or disabilities involving the musculoskeletal system, with laboratory practice in selected measures. Prerequisites: Admission to the Physical Therapy Program. Corequisite: PTH 645.

**PTH 636 Examination and Diagnosis II 2(1-2)**
Theory, concepts, and procedures central to examination and diagnosis of patients with dysfunctions or disabilities involving the musculoskeletal system, with laboratory practice in selected measures. Prerequisites: PTH 635. Corequisite: PTH 646.

**PTH 645 Patient Care I 5(3-4)**
An introduction to the skills and techniques needed in the care of patients. Problem-solving, communication, general patient care and safety will be emphasized. Prerequisites: admission to the Physical Therapy program.

**PTH 646 Patient Care II 5(3-4)**
An introduction to evaluation procedures and interventions used for patients with a variety of dysfunctions involving the musculoskeletal system. This orthopedic intervention course is designed to integrate with other courses in a semester focused on orthopedics. Prerequisites: Admission into physical therapy program, PTH 645, concurrent enrollment in PTH 633, concurrent enrollment in PTH 636.

**PTH 655 Teaching and Learning in Physical Therapy 2(2-0)**
Theory and research on learning development and instruction as it relates to the role of physical therapists as teachers and learners in a variety of situations/settings. Prerequisites: admission to the Physical Therapy program.

**PTH 661 Manual Therapy I 1(0-2)**
Lab demonstration/participation is used to study foundational manual therapy techniques used in physical therapy for the treatment of extremity dysfunctions and associated painful postures. Prerequisites: PTH 646; admission to the Physical Therapy program.

**PTH 662 Manual Therapy II 2(0-4)**
The study of manual techniques used in physical therapy for the treatment of spine dysfunction and associated painful posture. Prerequisites: PTH 661, admission to the Physical Therapy program.

**PTH 663 Proprioceptive Neuromuscular Facilitation 2(2-0)**
This course introduces the treatment techniques and procedures that are integral to proprioceptive neuromuscular facilitation in treating neuromuscular or musculoskeletal problems. Prerequisites: PTH 745, admission to the Physical Therapy program.

**PTH 665 Physical Therapy Seminar I 1(1-0)**
The study of professional issues in physical therapy. Course will focus on health care delivery and practice issues. CR/NC only. Prerequisites: admission to the Physical Therapy program.

**PTH 666 Physical Therapy Seminar II 1(1-0)**
The study of professional issues in physical therapy. Course will focus on practice, political and demographic issues. CR/NC only. Prerequisites: admission to the Physical Therapy program.
PTH 672 Clinical Anatomy and Kinesiology of Human Joints 4(3-3)
Anatomical and kinesiological overview of joints in the human body. Includes anatomy, histology of musculo-skeletal tissue, joint biomechanics, arthrodynamics, osteokinematics and study of human gait. Prerequisites: HSC 630 and admission to the Physical Therapy program.

PTH 690 Motor Learning in Neurorehabilitation 2(2-0)
Students will examine the current theory on motor learning and make applications to case studies in rehabilitation. Prerequisites: admission to the Physical Therapy program.

PTH 692 Clinical Biomechanics 2(1-2)
Addresses advanced topic areas in clinical biomechanics. Areas include special cases for gait, kinetic chain activities, and the mechanical bases of clinical practice.

PTH 695 Ethics in Physical Therapy 3(3-0)
The course introduces biomedical ethics principles to students in physical therapy education programs. Students are instructed in ethical theories and decision-making strategies. Identical to PHL 590. Credit may not be earned in more than one of these courses. Prerequisites: admission to the Physical Therapy program.

PTH 710 Principles of Clinical Management 3(3-0)
Study of administrative and organizational activities needed in a physical therapy clinic. Personnel, quality assurance, reimbursement, and legal issues are examined. Prerequisites: admission to the Physical Therapy program.

PTH 732 Clinical Education III 3(1-4)
A mock clinic format is utilized to introduce students to specific clinical situations. Patient management skills for complex clinical case studies are emphasized. CR/NC only. Prerequisites: admission to the Physical Therapy program, PTH 634.

PTH 735 Examination and Diagnosis III 2(1-2)
Theory, concepts, and procedures central to examination and diagnosis in neurological physical therapy practice, with laboratory practice in the application of selected measures. Prerequisites: PTH 636. Corequisite: PTH 745.

PTH 736 Examination and Diagnosis IV 2(1-2)
Theory, concepts, and procedures central to examination and diagnosis of patients with dysfunctions or disabilities involving selected multiple systems, with laboratory practice in selected measures. Prerequisites: PTH 735; Co-requisite: PTH 746.

PTH 745 Patient Care III 5(3-4)
Students are instructed in skills for the care of patients. Neurologic case studies, standardized testing, education and management issues are emphasized. Prerequisites: PTH 626, PTH 646; admission to the Physical Therapy program.

PTH 746 Patient Care IV 4(3-2)
Students are instructed in skills for the care of patients. Cardiopulmonary oncology, burn care, chronic pain and chronic conditions are emphasized. Prerequisites: admission to the Physical Therapy program, PTH 745.

PTH 765 Physical Therapy Seminars III 1(1-0)
The study of professional issues in physical therapy. Course will focus on social, business and government issues. CR/NC only. Prerequisites: admission to the Physical Therapy program.

PTH 766 Physical Therapy Seminars IV 1(1-0)
The study of professional issues in physical therapy. Course will focus on ethical, educational and practical issues. CR/NC only. Prerequisites: admission to the Physical Therapy program.

PTH 790 Clinical Research I 4(4-0)
First of two courses sequence to satisfy the doctoral project requirements for physical therapy program. Students complete either (a) a prospective research project or (b) a clinical case report. CR/NC only. Prerequisites: admission to the Physical Therapy program.

PTH 791 Independent Study 1-3(Spec)
Students engage in independent study on a topic related to physical therapy. Students work with a faculty sponsor to outline the project requirements and complete the activities. Prerequisites: admission into the Graduate Program in Physical Therapy and a written proposal approved by the Physical Therapy Program Director.

PTH 792 Special Topics in Physical Therapy 1-9(1-9)
Exploration of current special topics in physical therapy examination and intervention. May be repeated to a maximum of 9 credits. Prerequisites: Admission to the Physical Therapy Program.

PTH 825 Health Promotion in Physical Therapy Practice 2(2-0)
Overview of health promotion in physical therapy practice. Focus on health needs assessment, implementing health promotion interventions, and evaluating program effectiveness with individuals and groups. Prerequisites: admission to the Physical Therapy Program.

PTH 832 Clinical Education IV 12(Spec)
This course consists of a full-time clinical internship. The student will have 16 weeks of clinical experience. Students will be affiliated with various clinical sites throughout Michigan and the U.S. CR/NC only. Prerequisites: admission to the Physical Therapy program, and permission of instructor. Concurrent enrollment for students selecting PTH 790.

PTH 850 Evidence Based Practice in Physical Therapy 2(2-0)
Principles of evidence based practice applied to the physical therapy profession. Students will learn to gather and evaluate evidence and incorporate it into clinical practice. Prerequisites: HSC 670, admission to the Physical Therapy Program.

PTH 860 Health Informatics for Physical Therapists 2(2-0)
Exploration and application of health informatics in support of patient care, teaching, research and health care administration applicable to physical therapy. Prerequisites: admission to the Physical Therapy Program.

PTH 870 Rehabilitation Care Management 3(3-0)
Students develop skills for primary care management in rehabilitation services. Content areas include: keep/referral decision making, patient advocacy, utilization of public health agencies, and cultural issues. Prerequisites: admission to the Physical Therapy Program.

PTH 890 Clinical Research II 4(4-0)
Second of two courses sequence to satisfy the doctoral project requirements for physical therapy program. Students complete (a) a prospective research project or (b) clinical case report. CR/NC only. Prerequisites: admission to the Physical Therapy program.

PTH 891 Fall Assessment and Prevention 1(1-0)
This course presents comprehensive fall assessment and prevention programs. Evaluation of risk factors for falling and prevention strategies are emphasized. Prerequisites: Admission to the Graduate Program in Physical Therapy.
PTH 893 Imaging in Physical Therapy 1(1-0)
Study and application of patient imaging in the practice of physical therapy.

PTH 894 Issues and Practice in Women’s Health 1(1-0)
Issues in physical therapy evaluation, examination, and management of female patients/clients. Unique conditions of female adolescents, the childbearing years, midlife, and aging are discussed.

PTH 932 Clinical Education V 12(Spec)
This course consists of a 16 week full-time clinical internship. Students will be affiliated with various clinical sites throughout Michigan and the U.S. CR/NC only. Prerequisites: admission to the Physical Therapy program, PTH 832, and permission of the instructor. Concurrent enrollment in PTH 890.
Master of Arts (M.A.) in Sociology

Minimum Totals for Graduation: 30-36 hours

Admission Requirements, Retention & Termination Standards

Admission
The application deadline for admission to the graduate program in Sociology is April 1 for the following academic year. Admissions decisions are made by the department's Graduate Program Committee. The Committee may request additional information or an interview with a candidate who does not meet the requirements for Regular Admission status.

To receive regular admission status for the M.A. in Sociology, the student must have completed all of the following:

1. Twenty (20) semester hours in sociology with a grade point average of 3.25;
2. A 3.25 overall grade point average in undergraduate course work or a score of 1,000 or better on the Graduate Record Examination (verbal and quantitative scores combined);
3. A grade of 3.0 (B) or better in both SOC 300 Introduction to Research Methods or equivalent, and SOC 301 Sociological Theory or equivalent;
4. A 500-word statement of interest, describing career goals and needs.

An applicant who does not satisfy the foregoing requirements may be eligible for conditional admission. Where minimum grade point averages are not met in either sociology and/or overall for undergraduate work, the conditionally admitted student must achieve a minimum grade point average of 3.0 or better in each of the first three SASW graduate courses attempted (two of which must be core courses), in order to be eligible for admission to a fourth graduate course. Where one or both of the SASW equivalent undergraduate theory and methods courses have not been taken or the grades are less than 3.0, the conditionally admitted student must satisfy the deficiency by taking SOC 300 and/or SOC 301 (depending on the deficiency) and receiving a grade of at least 3.0. Neither course can count for graduate credit.

Conditionally admitted students who have satisfied the requirements for regular status in the manner noted above must formally apply for regular status to the Graduate Program Committee. The application must include three letters of recommendation from SASW faculty and a writing sample. The decision by the committee on granting regular status to a conditionally admitted student may be appealed to the department faculty as a whole. Students planning to study for the Ph.D. in sociology are strongly advised to pursue the Plan A option on their masters program. Furthermore, students should be aware that the department strongly recommends that faculty members of the Department of Sociology, Anthropology, and Social Work abstain from writing letters of recommendation for any graduate student seeking admission to and/or financial support from Ph.D. degree institutions until admission to Plan A candidacy.

Required Courses (9 hours)
SOC 501 - Development of Sociological Theory 3(3-0)
SOC 601 - Contemporary Sociological Theory 3(3-0)
SOC 607 - Methodology of Sociological Research 3(3-0)
SOC 631 - Workshop on Qualitative Research 3(3-0)
SOC 632 - Techniques of Sociological Research 3(3-0)

Note: Each student's overall grade point average for the required courses must be at least 3.0.

Cognate Courses (0-12 hours)
To be selected with the approval of the student's sociology advisor.

Additional Requirement
Select one of the following plans:

Plan A - Thesis and oral examination

Admission to thesis candidacy (Plan A) shall be by positive vote of the Graduate Program Committee, upon submission of a formal application that includes a current transcript, a writing sample, a Plan A advisor letter of support and agreement, human subjects review and approval, and a statement providing a general overview of the thesis topic, methods, and time frame. The decision of the Graduate Program Committee on thesis candidacy may be appealed to the department faculty as a whole. Students planning to study for the Ph.D. in sociology are strongly advised to pursue the Plan A option on their masters program. Furthermore, students should be aware that the department strongly recommends that faculty members of the Department of Sociology, Anthropology, and Social Work abstain from writing letters of recommendation for any graduate student seeking admission to and/or financial support from Ph.D. degree institutions until admission to Plan A candidacy.

Required Courses (9 hours)
SOC 602 - Professional Seminar 3(3-0)
SOC 798 - Thesis 1-6(Spec)

Electives (0-6 hours)
To be selected in consultation with advisor.

Plan B - One paper and written comprehensive examination

Plan B involves passing comprehensive examinations based on graduate course work, involving a minimum of three tested areas, read by no fewer than three members of the SASW graduate faculty. Retakes of one or more areas of the comprehensive examinations shall be allowed at the discretion of the student's Plan B supervisor, but under no circumstance will more than one retake be allowed without formal graduate course remediation approved by the Graduate Program Committee.

In addition, Plan B requires a substantial paper that must be approved by two members of the SASW graduate faculty.

Electives (3-15 hours)
To be selected in consultation with advisor.

Total: 30 semester hours

Degree Requirements

Core Courses (15 hours)
SOC 501 - Development of Sociological Theory 3(3-0)
SOC 601 - Contemporary Sociological Theory 3(3-0)
SOC 607 - Methodology of Sociological Research 3(3-0)
SOC 631 - Workshop on Qualitative Research 3(3-0)
SOC 632 - Techniques of Sociological Research 3(3-0)

Program Requirements
In addition to the course work specified below, either of the following two programs will satisfy the master's degree requirements.

Plan A: Thesis and oral examination

Plan B: One paper and written comprehensive examination.

Graduate students enrolled in courses numbered below 600 are expected to perform, as defined by the course instructor, at a higher level than the undergraduate students in such courses.

It is possible to transfer up to 9 credit hours of graduate work from another institution into the Sociology graduate degree programs. It is possible that some transfer credit may substitute for course requirements. The Graduate Program Committee must approve the request for graduate transfer credit.

The department offers graduate courses on a two-year rotation. Students should be aware that the minimum time to complete an M.A. is two years.
**Scholarships and Awards**

**Edward E. McKenna Academic Excellence Award**

Established in 1998 in memory of this dedicated teacher, scholar, and unionist by the Department of Sociology, Anthropology, and Social Work. Endowment earning will provide cash awards for winning authors of an annual undergraduate and graduate paper competition.

**Bernard N. Meltzer Scholarship**

Established by friends in honor of Bernard N. Meltzer, former faculty member and chairperson of the Department of Sociology, Anthropology, and Social Work, for a graduate student in sociology.

**Course Descriptions: SOC**

**SOC 501 Development of Sociological Theory 3(3-0)**

In-depth analysis of classical sociological theory focusing on Marx, Durkheim, Weber, and Mead. The historical and intellectual context in which these theorists wrote is emphasized. Prerequisites: SOC 100, 201, 221; or graduate standing.

**SOC 502 Theories of Race Relations in Sociology 3(3-0)**

Contributions to sociological theories of race relations by major theorists including Dubois, Frazier, Cox, and others. Prerequisites: SOC 300, SOC 301, SOC 323; or SOC 323, signed American Ethnic Studies minor; or regular admission to the Sociology graduate program.

**SOC 506 Comparative Cultural Systems 3(3-0)**

Explores theories of cultural development, with particular emphasis on urban and post-industrial cultures. Students investigate cultures different from their own. Identical to ANT 506. Credit may not be earned in more than one of these courses. Prerequisite: introductory anthropology and/or sociology course.

**SOC 507 Class and Poverty in America 3(3-0)**

Examination of theories of social class and their application to American society. Review of empirical literature on class and poverty in the U.S. Prerequisites: SOC 300 or SOC 200, 350; SOC 301; or admission to Graduate Program.

**SOC 512 Industrial Sociology 3(3-0)**

Characteristics of industrial societies. Relationship of the organization of industrial work to that of nonwork culture, institutions, and roles. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or regular admission to the Sociology Graduate Program.

**SOC 514 Sociology of Health and Illness 3(3-0)**

Social forces that affect the health of populations and individuals, as well as the operations of a major social institution, that of medical care. Prerequisites: Completion of a University Group IIIB Course or regular admission to the Sociology Graduate Program.

**SOC 515 Custodial Institutions 3(3-0)**

The structural organizational, and functional dimensions of custodial institutions in American society, emphasizing social process of jails, prisons, training schools, mental hospitals, and nursing homes. Prerequisites: SOC 300 or SOC 200, 350 or PSC 280; SOC 301; or regular admission to the Sociology Graduate Program.

**SOC 521 Advanced Study of Deviant Behavior 3(3-0)**

Contemporary issues in deviance theory and research. Prerequisites: SOC 300 or both SOC 200 and 350, SOC 301; SOC 321; or regular admission to the Sociology Graduate Program.

**SOC 523 Community Corrections and Alternative Sentencing 3(3-0)**

Justice policies and practices of community corrections and alternative sentencing are featured, including intermediate sanctions, probation, parole, and prisoner reentry. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; SOC 220 and an additional 9 hours of social and criminal justice coursework; or regular admission to the Sociology Graduate Program.

**SOC 524 Sociology of Law 3(3-0)**

The association of law and social justice, social organization, stratification, and social conflict. Current issues in justice, law, and conflict resolution. Prerequisites: SOC 200, 350 (or SOC 300); SOC 301; or graduate standing.

**SOC 525 Internship in Social and Criminal Justice 6(Spec)**

Supervised practical experience in a criminal or social justice organization. CR/ NC only. Prerequisites: SOC 523; permission of course instructor.

**SOC 526 Police and Community Relations 3(3-0)**

Community and police perceptions of police role in democratic society, police discretion, use of force, community policing, and related topics. Prerequisites: SOC 300 or both SOC 200 and 350; SOC 301; or regular admission to the Sociology Graduate Program.

**SOC 527 Community-Based Justice 3(3-0)**

Interdisciplinary approach to community as locus of justice, and justice as locus of community. Review of intellectual heritage of community study; community development; peacebuilding practices. Prerequisites: SOC 200, 301, 350 or regular admission to the Sociology Graduate Program.

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

Capstone course which provides field experience for students enrolled in the Youth Studies minor. Students spend time working with youth in various community settings and meet periodically on campus to systematically reflect on practical field experience. Prerequisites: SOC 100, 222, 311, 411, 412, 425; or graduate standing Co-requisites: Concurrent enrollment in SOC 411, 412, and/or 425 is permitted.

**SOC 531 Capstone Experience in Global Justice 3(3-0)**

Capstone course synthesizes course work on the issues of global social justice/injustice. Explores roots, consequences, types, policy approaches, and strategies for pursuing global justice. Identical to ANT 531. Credit may not be earned in more than one of these courses. Prerequisites: SOC/ANT 101; 15 hours in the Global Justice Minor; Completion of the Service Learning component of the Global Justice Minor; and Approval of the Global Justice Advisor. May be taken by SOC or ANT Majors with the approval of the Global Justice Advisor. Or, graduate standing.

**SOC 590 Gender, Culture & Society 3(3-0)**

Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to ANT 590 and WST 590. Credit may not be earned in more than one of these courses. Prerequisites: 6 hours of anthropology and/or sociology and/or women's studies.

**SOC 599 Special Topics in Sociology 1-10(Spec)**

Consideration of subject-matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.
SOC 601 Contemporary Sociological Theory 3(3-0)
Analysis of social theories of knowledge, postcolonialist social theory, postcolonialist feminism, black feminist thought, interactionism, critical theory, postmodernism, and other sociological theories of contemporary relevance. Prerequisites: 15 hours of sociology and graduate standing.

SOC 602 Professional Seminar 3(3-0)
Techniques of thesis writing; development of thesis prospectus. The research of departmental faculty is presented and discussed. Prerequisites: Regular admission to the Sociology Graduate Program.

SOC 605 Sociology of Knowledge 3(3-0)
Relationship of ideas to social life. The intellectual in society; relationship of empirical knowledge to cultural values and ideologies; objectivity in sociology. Prerequisite: SOC 301 or SOC 501.

SOC 607 Methodology of Sociological Research 3(3-0)
Exploration and critique of various epistemological approaches to sociological inquiry. Research design, concept development, nature of data, introduction to qualitative and quantitative methods. Prerequisites: SOC 200 and 350; and permission of instructor.

SOC 611 Human Diversity Within and Between Families 3(3-0)
Diverse backgrounds of families/individuals based on ethnicity, religion, sexual orientation, class and disabilities will be studied. Models to explore the diverse nature will be applied. Identical to HDF 603. Credit may not be earned in more than one of these courses.

SOC 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

SOC 621 Social Control and Justice Systems 3(3-0)
Formal and informal responses to crime and delinquency, analyzed in terms of criminology theory and research and with reference to concepts of social control. Prerequisites: SOC 300, and SOC 301 or SOC 501.

SOC 631 Workshop on Qualitative Research 3(3-0)
This course is designed to introduce students to the various qualitative research methods in the social sciences. Prerequisites: SOC 607.

SOC 632 Techniques of Sociological Research 3(3-0)
Analysis of quantitative social science data. Hypothesis testing and descriptive methods. Prerequisite: SOC 607.

SOC 699 Special Topics in Sociology 1-10(Spec)
Subject matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

SOC 795 Independent Reading 1-6(Spec)
Prerequisite: Open to students who have obtained the permission of the department chairperson and an instructor to read intensively on an approved topic.

SOC 796 Independent Research 1-6(Spec)
Prerequisite: open to students who have obtained the permission of the department chairperson and an instructor to conduct research on an approved topic.

SOC 798 Thesis 1-6(Spec)
Credit is earned in this course through successful completion of a thesis in sociology. Prerequisite: Advisor’s permission is required. CR/NC only.

Course Descriptions: ANT

ANT 500 Field School in Archaeology 3-6(Spec)
Intensive practical experience in field survey, excavation, and laboratory analysis of resulting materials. Prerequisite: ANT 174 or ANT 175 or ANT 240.

ANT 506 Comparative Cultural Systems 3(3-0)
Explores theories of cultural development, with particular emphasis on urban and post-industrial cultures. Students investigate cultures different from their own. Identical to SOC 506. Credit may not be earned in more than one of these courses. Prerequisites: introductory anthropology and/or sociology course.

ANT 520 Global Perspectives in Health and Illness 3(3-0)
Transcultural variations in conceptions of health and healing, cultural practices that encourage or inhibit disease, and the effects of social institutions on health and illness. Prerequisites: 6 hours of cultural anthropology and/or sociology.

ANT 531 Capstone Experience in Global Justice 3(3-0)
Capstone course synthesizes course work on the issues of global social justice/injustice. Explores roots, consequences, types, policy approaches, and strategies for pursuing global justice. Identical to SOC 531. Credit may not be earned in more than one of these courses. Prerequisites: SOC/ANT 101; 15 hours in the Global Justice Minor; Completion of the Service Learning component of the Global Justice Minor; and Approval of the Global Justice Advisor. May be taken by SOC or ANT Majors with the approval of the Global Justice Advisor. Or, graduate standing.

ANT 588 Special Topics in Anthropology 1-10(Spec)
Consideration of subject matter not included in courses currently listed in catalog. Prerequisite: permission of instructor.

ANT 590 Gender, Culture & Society 3(3-0)
Analysis of gender roles in various cultures; theoretical approaches to explaining gender role variation. Identical to SOC 590 and WST 590. Credit may not be earned in more than one of these courses. (Not open to students who have completed ANT 490 or WST 490.) Prerequisites: 6 hours of anthropology and/or sociology and/or women’s studies.

ANT 698 Independent Studies in Anthropology 1-12(Spec)
Directed reading and/or research on an approved topic. Prerequisite: permission of instructor and department chairperson. Credit Limitation. ANT 698 is subject to graduate credit limitation under the policy covering unspecified content or variable credit.

Course Descriptions: SWK

SWK 597 Independent Study 1-12(Spec)
Directed reading or research on approved topic. Permission of instructor required.

SWK 599 SpecialTopics in Social Work 1-12(Spec)
Consideration of subject matter not included in courses currently listed in the Bulletin.
The Department of Teacher Education and Professional Development offers five master’s degrees: (1) a Master of Arts in Educational Technology (K-12); (2) a Master of Arts in Elementary Education, with three options: Classroom Teaching, Early Childhood, and Reading in the Elementary School (note: the department is not currently accepting students into the Reading in the Elementary School option); (3) a Master of Arts in Reading and Literacy (K-12); (4) a Master of Arts in Middle Level Education; and (5) a Master of Arts in Secondary Education, with one option: Teaching in the Senior High School. Guide sheets specifying requirements, general elective courses, and other information for all the department’s Master of Arts programs may be obtained from 421 EHS Building or online at http://www.tepd.cmich.edu.

Master of Arts (M.A.) in Educational Technology (EDU/MLE)

Minimum Totals for Graduation: 33 hours

The Educational Technology master’s degree program prepares students to provide instruction utilizing new learning technologies. The technologies addressed in this program include multimedia, telecommunications, and distance learning. While meeting the needs of the classroom teacher, this program also prepares individuals for technology leadership roles.

The degree program requires a minimum of 33 hours and all candidates for the MA must complete the Educational Technology Seminar, resulting in a terminal project. Educational Technology projects must demonstrate effective uses of technology in K-12 classroom settings.

Admission Requirements, Retention & Termination Standards

In addition to the university’s general admission requirements, the student must either hold a valid K-12 teaching certificate or be employed in an educational capacity within their school, school district, community college, or profession. Regular admission in the program requires an undergraduate grade point average of at least 2.7 (on a 4-point scale). Students with a GPA below 2.5 will not be considered for admission for the graduate program in teacher education. A maximum of 9 hours taken before signing the master’s program may be counted on the program. Students must earn a B- or better in each graded course within the 9 hours taken.

Advisors for the master’s program are assigned only after the student has been regularly or conditionally admitted to the College of Graduate Studies and has selected an option.

Degree Requirements

Required Courses (12 hours)
EDU 590/SPE 510 - Advanced Technology in Education 3(2-3)
EDU 613/MLE 613 - Current Educational Issues 3(3-0)
EDU 614 - Advanced Educational Psychology 3(3-0)
EDU 662 - Applied Educational Measurement and Evaluation 3(3-0)

Required Cognate Courses (18 hours)
EDU 642 - Instructional Multimedia 3(3-0)
EDU 643 - Instructional Design 3(3-0)
EDU 653 - The Read/Write Web 33 (3-1)
EDU 707 - Seminar: Issues in Educational Technology 3(3-0)
EDU 708 - Distance Education 3(3-0)
EDU 710 - Seminar: Terminal Project 3(3-0)

(continued)
Electives (3 hours)
Select from the following:
CPS 590 - Computer Applications In Educational Administration 3(3-0)
CPS 591 - Computer Application In Classroom Instruction 3(3-0)
CPS 592 - Computer Science Content for Elementary Teachers 3(3-0)
EDL 610 - Grants and Fund Procurement 3(3-0)
EDU 506 - Principles and Techniques for Individualizing Instruction 3(3-0)
EDU 566 - Independent Study in Elementary Education 1-6(Spec)
EDU 709 - Innovative Uses of Technology 3(3-0)
(or courses selected in consultation with graduate advisor.)
Total: 33 semester hours (minimum)

Master of Arts (M.A.) in Elementary Education (EDU)
Minimum Totals for Graduation: 30 - 33 hours
Guide Sheets specifying requirements for all the department’s programs may be obtained from 421 EHS Building or online at http://www.tepd.cmich.edu/.

Admission Requirements, Retention & Termination Standards
Admission
In addition to meeting the university’s general admission requirements, the student must have a valid Michigan elementary teaching certificate or the equivalent. Courses taken to meet this admission requirement shall not count toward the master’s degree. Those who do not possess the elementary teaching certificate should contact the Center for Student Services for information on how to meet certification requirements. Advisors for the master’s program are assigned only after the student has been regularly or conditionally admitted to the College of Graduate Studies and has selected an option.

Regular admission in the program requires an undergraduate grade point average of at least 2.70 (on a 4-point scale). Students with a GPA below 2.50 will not be considered for candidacy for the graduate program in teacher education. A maximum of 9 hours taken before signing the master’s program may be counted on the program. Students must earn a B- or better in each graded course.

Program Requirements
All candidates for the M.A. must fulfill requirements for scholarly activity under Plan A (thesis) or Plan B (comprehensive written exam).
Plan A requires a minimum of 24 hours of course work and a thesis (6 hours of thesis credit).
Plan B requires a minimum of 30 hours of coursework, a 3 hour capstone seminar (EDU 780) which explores research pertinent to all Master of Arts in Elementary Education students, and a comprehensive four (4) hour examination over the coursework in the student's M.A. Program. The examination over the coursework must be taken early in the term following the completion of EDU 780. Students will not need to register for a course or pay fees for the examination. The examination may be taken a maximum of two times. Specific descriptions of program requirements are available in 421 EHS Building or online.

Degree Requirements
Required Core Courses
Select one of the following plans:
Plan A (15 hours)
EDU 660 - Methods of Educational Research 3(3-0)
EDU 682/PSY 682 - Psychology of Child Development 3(3-0)
EDU 698 - Thesis 1-6(Spec)
Plan B (15 hours)
EDU 590/SPE 510 - Advanced Technology in Education 3(2-3)
EDU 613/MLE 613 - Current Educational Issues 3(3-0)
EDU 614 - Advanced Educational Psychology 3(3-0)
EDU 662 - Applied Educational Measurement and Evaluation 3(3-0)
EDU 780/MLE 780 - Master of Arts Capstone Seminar 3(3-0)

Note: EDU 780 is offered on the Mt. Pleasant campus only and should be the last course taken to fulfill the Plan B requirements before taking the comprehensive written examination.

Residence Requirement for Plan A and Plan B: Students are required to complete a minimum of 12 semester hours of credit in graduate courses taken at the Mt. Pleasant campus or from Teacher Education Professional Development tenure and tenure/track faculty in coursework offered by the CMU Off Campus Programs.

Options
Select one of the following:
Elementary Education: Classroom Teaching
Required Courses (15 hours)
EDU 506 - Principles and Techniques for Individualizing Instruction 3(3-0)
EDU 540 - Literacy Education: Theory and Practice 3(3-0)
EDU 620 - Problems of Teaching Mathematics in the Elementary School 3(3-0)
EDU 635 - Problems in Language Arts in the Elementary School 3(3-0)
EDU 640 - Problems in Social Studies in the Elementary School 3(3-0)
EDU 645 - Problems in Science in the Elementary School 2(2-0)

Or, as an option, specialized and related courses can be selected with approval of advisor

Elementary Education: Early Childhood
Required Courses (15-18 hours)
Specialized and related courses to be selected with approval of advisor.

Total: 30-33 semester hours

Note: Plan A requires students to complete at least 30 hours of total credit. Plan B requires students to complete at least 33 hours of total credit.
Master of Arts (M.A.) in Secondary Education

Minimum Totals for Graduation: 30 - 33 hours

Admission Requirements, Retention & Termination Standards

In addition to meeting the university's general admission requirements, the student must have a valid Michigan secondary teaching certificate or the equivalent. Courses taken to meet this admission requirement shall not count toward the master's degree. Those who do not possess the secondary teaching certificate should contact the Center for Student Services for information on how to meet certification requirements.

Advisors for the master's program are assigned only after the student has been regularly or conditionally admitted to the College of Graduate Studies and has selected an option.

Regular admission in the program requires an undergraduate grade point average of at least 2.70 (on a 4-point scale). Students with a GPA below 2.50 will not be considered for candidacy for the graduate program in teacher education. A maximum of 9 hours taken before signing the master's program may be counted on the program. Students must earn a B- or better in each graded course.

Program Requirements

All candidates for the M.A. must fulfill requirements for scholarly activity under Plan A (thesis) or Plan B (comprehensive written exam). Plan A requires a minimum of 24 hours of coursework and a thesis (6 hours of thesis credit).

Plan B requires a minimum of 30 hours of coursework, a 3 hour capstone seminar (EDU 780) which explores research pertinent to all Master of Arts in Secondary Education students, and a comprehensive four (4) hour examination over the coursework in the student's M.A. Program. The examination over the coursework must be taken early in the term following the completion of EDU 780. Students will not need to register for a class or pay fees for the examination. The examination may be taken a maximum of two times.

Degree Requirements:

Required Core Courses

Select one of the following plans:

Plan A (18 hours)
- EDU 609 - History of Education 3(3-0)
- EDU 611 - Philosophy of Education 3(3-0)
- EDU 625 - Child Management in Early Childhood 2(2-0)
- EDU 628 - Senior High School Programs and Practices 3(3-0)
- EDU 660 - Methods of Educational Research 3(3-0)
- EDU 668 - Thesis 1-6(Spec)
- EDU 755 - Advanced Research Design and Interpretation 3(3-0)

Note: Select EDU 609 OR 611, EDU 625 OR 628

Plan B (12 hours)
- EDU 590/SPE 510 - Advanced Technology in Education 3(2-3)
- EDU 613/MLE 613 - Current Educational Issues 3(3-0)
- EDU 614 - Advanced Educational Psychology 3(3-0)
- EDU 662 - Applied Educational Measurement and Evaluation 3(3-0)
- EDU 780/MLE 780 - Master of Arts Capstone Seminar 3(3-0)

Electives (6 hours)

To be selected with advisor's approval.

Total: 30-33 semester hours

Note: Plan A requires students to complete at least 30 hours of total credit. Plan B requires students to complete at least 33 hours of total credit.

Master of Arts (M.A.) in Reading and Literacy K-12 (EDU)

Minimum Totals for Graduation: 33 - 36 hours

The Master of Arts in Reading and Literacy K-12 has been developed based on teacher preparation standards written by the International Reading Association (IRA) and the National Council of Teachers of English (NCTE) and adopted by the National Council for the Accreditation of Teacher Education (NCATE). In addition, the course work contains components to meet the standards approved by the Michigan State Board of Education for the Reading Specialist (BR) Endorsement (July 20, 2000). Any certified teacher meeting the requirements for entry into graduate studies at Central Michigan University is eligible to enter the program.

The Master of Arts in Reading and Literacy K-12 provides students with knowledge and skills in reading and writing programs K-12. The major objectives of the program will enable students to:

1. organize and implement school literacy programs
2. diagnose and treat difficulties in literacy
3. implement appropriate reading and writing instruction.
4. develop interdisciplinary and integrated units involving literacy.
5. conduct research about current issues of literacy.
6. develop technological and viewing skills related to literacy programs.

(continued)
Admission Requirements, Retention & Termination Standards

Admission

In addition to the university's general admission requirements, the student must have a valid K-12 teaching certificate or equivalent. Regular admission into the program requires an undergraduate grade point average of at least 2.70 (on a four point scale). Students with a GPA below 2.70 will not be considered for admission to the program.

A maximum of 9 hours taken before signing the master’s program may be counted toward the program. Students must earn a B- or better in each graded course.

Program Requirement

Residence Requirement for Plan A and Plan B: Students are required to complete a minimum of 12 semester hours of credit in graduate courses taken at the Mt. Pleasant campus or from Teacher Education Professional Development tenure and tenure/track faculty in course work offered by CMU Off-Campus Programs.

Required Courses - Reading and Literacy Concentration (18 hours)

EDU 630 - Organization and Implementation of School Literacy Programs 3(3-0)
EDU 632 - Practicum in the Diagnosis and Treatment of Difficulties in Literacy 6(Spec)
EDU 636 - Classroom Reading and Writing Instruction 3(3-0)
EDU 641 - Interdisciplinary Processes and Strategies for Teaching Literacy 3(3-0)
EDU 730 - Seminar: Issues in Literacy 3(3-0)

Core Courses

Select one of the following plans:

Plan A (15 hours)

EDU 613/MLE 613 - Current Educational Issues 3(3-0)
EDU 660 - Methods of Educational Research 3(3-0)
EDU 698 - Thesis 1-6(Spec)
EDU 755 - Advanced Research Design and Interpretation 3(3-0)

Plan B (18 hours)

Required Core (15 hours)

EDU 590/SPE 510 - Advanced Technology in Education 3(2-3)
EDU 613/MLE 613 - Current Educational Issues 3(3-0)
EDU 614 - Advanced Educational Psychology 3(3-0)
EDU 662 - Applied Educational Measurement and Evaluation 3(3-0)
EDU 780/MLE 780 - Master of Arts Capstone Seminar 3(3-0)

Electives for Plan B (3 hours)

An elective course may be selected from the following:

CDO 530 - Speech and Hearing Problems of School Children 3(3-0)
EDU 528 - Emergent Literacy: Theory and Practice 3(3-0)
EDU 538 - Coordination of the Language Arts with Reading 3(3-0)
EDU 540 - Literacy Education: Theory and Practice 3(3-0)
EDU 635 - Problems in Language Arts in the Elementary School 3(3-0)
ENG 517 - Reading and the English Classroom 3(3-0)

ENG 573 - Linguistics and Reading 3(3-0)
ENG 580/LMT 580 - Literature for Young Adults 3(3-0)
ENG 581 - The History of Children's Literature 3(3-0)
ENG 582 - Cultural Pluralism in Young Adult and Children's Literature 3(3-0)
ENG 588 - Seminar in Children's Literature 3(3-0)
COM 569 - Communication in the Classroom 3(3-0)
SPE 577 - Introduction to Specific Learning Disability 3(3-0)
TAI 585 - Creative Dramatics 3(2-2)

Note: Plan B students must also take a comprehensive four (4) hour examination over the course work in the student’s M.A. program. This exam must be taken early in the term following the completion of EDU 780. Students will not need to register or pay fees for this exam. The exam may be taken a maximum of two times. Specific descriptions of the program and exam requirements are available in EHS 421 or online.

Total: 33-36 semester hours

Note:
Plan A requires a total of 33 hours.
Plan B requires a total of 36 hours.

Graduate Certificate in Educational Technology

Minimum Totals for Graduation: 15 hours

The Graduate Certificate in Educational Technology program prepares educators and other educational professionals to effectively utilize new learning technologies. The technologies addressed in this program include multimedia, handheld devices, distance, and telecommunications in education. Designed to meet the needs of educators and other educational professionals, this program also prepares individuals for classroom technology support roles.

Required Courses

EDU 590/SPE 510 - Advanced Technology in Education 3(2-3)
EDU 595 - Telecommunication in Education 3(2-2)
EDU 642 - Instructional Multimedia 3(3-0)
EDU 643 - Instructional Design 3(3-0)
EDU 707 - Seminar: Issues in Educational Technology 3(3-0)

Total: 15 credit hours

Note: This Graduate Certificate in Educational Technology is not related to earning a teaching certificate.

Course Descriptions: EDU

EDU 505 Diagnostic Literacy Assessments & Instruction: K-3 3(3-0)

Diagnostic literacy assessments will be introduced including appropriate administration, data analysis, and related instructional practices. State literacy assessment certification: MLPP K-3. Prerequisites: EDU 330 or graduate status.

EDU 506 Principles and Techniques for Individualizing Instruction 3(3-0)

Examination of individualized instruction and its classroom implications. Prerequisite: EDU 330 or EDU 340.

EDU 508 Education Workshop 1-6(Spec)

Identification and study of problems in contemporary education.
EDU 513 Foundations of Bilingual Bicultural Education 3(3-0)
Sociocultural and psychological foundations, principles and practices of bilingual bicultural education. Prerequisite: EDU 280 or EDU 310.

EDU 514 Methods and Materials for Bilingual Bicultural Education 3(3-0)
Teaching methodologies, selection, adaptation and utilization of instructional materials, and testing and measurement for the bilingual Spanish or Ojibwe classroom (K-12). Prerequisite: EDU 330, EDU 340; or EDU 450.

EDU 518 Creativity in the Elementary School 3(3-0)
Develops understanding of the creative process. Teaching strategies to encourage creativity in all subjects will be stressed.

EDU 525 Early Childhood Education 3(3-0)
Content, methods, materials, and curriculum planning for teaching pre-kindergarten through primary grades.

EDU 526 Orientation and Overview of Early Childhood Programs 1(1-0)
History issues, trends, and development of early childhood program. Focus on the preschool movement, controversies, contributions, and survey of basic principles of development.

EDU 527 Introduction to Early Childhood Curriculum Materials and Methods 1(1-0)
Organization of educational programs, selection, planning, use, care and evaluation of materials in preschools. Methods appropriate to individual and group needs and interests.

EDU 528 Emergent Literacy: Theory and Practice 3(3-0)
Analysis of literacy development in preschool through primary grades. Methods, materials, organization, and evaluation techniques for fostering beginning reading and writing consistent with current research. Prerequisites: EDU 330.

EDU 532 Reading in the Content Areas 3(3-0)
Emphasizes teaching of reading skills in content areas focusing on the middle and upper grades. Prerequisites: EDU 330 or EDU 316.

EDU 533 Diagnosis and Treatment of Reading Difficulties 3(2-3)
Diagnostic procedures and use of remedial and developmental techniques. Exploration of the role of the specialist. Prerequisites: EDU 431, 532; Pre/Co-Requisite: EDU 538.

EDU 538 Coordination of the Language Arts with Reading 3(3-0)
Building the elements of listening, speaking, writing, and reading into a K-8 language arts program. Techniques of instruction for the exceptional child will be examined. Prerequisite: EDU 330.

EDU 540 Literacy Education: Theory and Practice 3(3-0)
Emphasizes balanced literacy philosophy, components, classroom management and organization, literature-based reading, authentic writing contexts, skill integration, thematic teaching, at risk populations and evaluation. Prerequisites: EDU 330.

EDU 542 Interdisciplinary Processes and Strategies in Teaching Reading, Writing, Thinking, and Learning 3(3-0)
This course will reinforce content teaching strategies and provide a conceptual framework for integrating reading, writing, and thinking for learning throughout the curriculum. Prerequisites: EDU 450 or EDU 532.

EDU 550 Driver Education I: Driver Task Analysis 3(3-0)
First of four courses to prepare driver education instructors and provide them with the current knowledge and skills necessary to teach driver education. Prerequisites: Permission of instructor.

EDU 551 Driver Education II: Developing Classroom Instructional Knowledge 3(3-0)
Second of four courses to prepare driver education instructors; knowledge and skills needed to implement classroom instruction, classroom management, and appropriate student evaluation. Prerequisites: EDU 550.

EDU 552 Driver Education III: Developing Vehicle Operational Skills 3(2-1)
Third of four courses to prepare prospective driver education instructors to conduct instruction which develops vehicle operational skills for the novice driver. Prerequisites: EDU 551.

EDU 553 Driver Education IV: Practicum 3(1-2)
Fourth of four courses preparing driver education instructors; classroom and in-car instruction in approved driver education programs under mentoring of cooperating driver education teachers. Prerequisites: EDU 552.

EDU 555 Meeting the Socio-Emotional Needs of Young Children 2(2-0)
Analysis of the social-emotional developmental and behavioral processes of young children including attitudes, aggression, achievement, dependency, fear, morality, self-concept, and implications of teaching.

EDU 557 Cognitive and Psycho-motor Experiences for Young Children 3(3-0)
Survey of psycho-motor and cognitive stages of development. Assessment of cognition and psycho-motor repertoires, concepts of intelligence, motor skills and development of an appropriate sequence of activities.

EDU 566 Independent Study in Elementary Education 1-6(Spec)
Research or project. Prerequisites: 15 semester hours of professional education and approval of unit coordinator.

EDU 567 Home Environment Practicum of Early Childhood 1(1-0)
Field-based experience in planning, implementing, and evaluating the dynamics of home 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)
Improvement of parent-school-community relations through parent education, involvement and interaction in the early childhood teaching-learning process. Cross-cultural and community center focus.

EDU 590 Advanced Technology in Education 3(2-3)
Students will study and practice the integration of technology in classroom instruction and management, with emphasis upon software evaluation and lesson design. Identical to SPE 510. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: EDU 290 or Graduate Status.
EDU 595 Telecommunication in Education 3(2-2)
   The study and laboratory exploration of telecommunication as used in schools and classrooms: e-mail, educational and general networks, collaborative lessons. Prerequisites: EDU 590. This course is approved for offering in a distance learning format.

EDU 602 Strategies and Techniques for Teaching 3(3-0)
   An advanced teaching course. Examination, development, assessment, and practical usage of methods and materials in the teacher’s subject area at middle school, high school, or community college level.

EDU 603 Elementary Diagnosis, Remediation and Differentiation of Reading Instruction 3(3-0)
   Diagnosing reading and writing difficulties for diverse learners and implementing research-based intervention practices designed to improve literacy in the elementary classroom. Prerequisites: none.

EDU 604 Developing and Utilizing Behavioral Objectives 3(3-0)
   Development and application of behavioral objectives in subject areas and various levels of instruction.

EDU 605 Elementary School Curriculum 3(3-0)
   Theories, techniques, and practices utilized in curriculum building.

EDU 606 Secondary Advanced Reading Diagnosis and Instruction 3(3-0)
   Diagnosing reading and writing difficulties for diverse learners and implementing research-based intervention practices designed to improve literacy in the secondary classroom. Prerequisites: none.

EDU 608 Projects in Education 1-6(Spec)
   Investigation, analysis, and reporting on special problems, innovative programs, changing curricula, and new techniques in elementary education. Subject to credit limitation.

EDU 609 History of Education 3(3-0) Development of modern education in Western civilization.

EDU 611 Philosophy of Education 3(3-0)
   Major philosophical viewpoints on education are examined with attention to developing tenable and consistent educational views.

EDU 613 Current Educational Issues 3(3-0)
   Identification and analysis of significant, persistent issues in education in the United States and the relationship to student achievement and teacher effectiveness. Identical to MLE 613. Credit may not be earned in more than one of these courses. This course has been approved for offering in a distance learning format.

EDU 614 Advanced Educational Psychology 3(3-0)
   Theories of learning and application to instruction. This course is approved for offering in a distance learning format. Prerequisite: EDU 493.

EDU 619 Continuing Registration for Final Research Project 1(1-0)
   A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

EDU 620 Problems of Teaching Mathematics in the Elementary School 3(3-0)
   Exploring cognitive issues, history, research, problem solving, technology, innovative programs, basic skills, and state and national standards in mathematics education. Prerequisite: EDU 320.

EDU 622 Advanced Adolescent Psychology 3(3-0)
   Advanced analysis of growth, development, and behavior during adolescence.

EDU 625 Child Management in Early Childhood 2(2-0)
   Review of learning and child management, theories, principles, and research relevant to behavioral development and change. Application of behavior techniques and models to reduce tension.

EDU 628 Senior High School Programs and Practices 3(3-0)
   Organization, content, and philosophies underlying the establishment and operation of senior high schools.

EDU 630 Organization and Implementation of School Literacy Programs 3(3-0)
   Design, implementation and evaluation of school reading and writing programs, staff development, and the change process. Prerequisites: EDU 632 or EDU 636, or concurrent enrollment in EDU 632 or EDU 636.

EDU 632 Practicum in the Diagnosis and Treatment of Difficulties in Literacy 6(Spec)
   Diagnostic procedures and materials; supervised work with K-12 students or adolescents; development and implementation of remediation procedures. Prerequisites: teaching certificate, one year teaching experience.

EDU 633 Clinical Practice in Reading 3(1-4)
   Continuation of EDU 632. Prerequisites: EDU 533 and EDU 632 plus permission of instructor.

EDU 635 Problems in Language Arts in the Elementary School 3(3-0)
   Trends in writing, spelling, listening, and speaking; research and activities for children. Prerequisite: EDU 330.

EDU 636 Classroom Reading and Writing Instruction 3(3-0)
   Students examine the reading and writing process in classroom instruction and learn about techniques and materials appropriate for specific reading and writing approaches. Prerequisite: teaching certificate.

EDU 637 Administration of Instructional Media Services 3(Spec)
   Analysis of instructional media programs in school systems. Prerequisite: EDU 510.

EDU 639 Instructional Materials and Curriculum Production 3(Spec)
   Principles and practices of integrating instructional materials in educational programs; production of curriculum materials. Prerequisite: EDU 510 or EDU 420.

EDU 640 Problems in Social Studies in the Elementary School 3(3-0)
   Development and analysis of current social studies programs, methods and activities, teaching materials, testing and evaluation. Prerequisite: EDU 343.
EDU 641  Interdisciplinary Processes and Strategies for Teaching Literacy 3(3-0)
This course will reinforce content teaching strategies and provide a conceptual framework for integrating reading, writing, and thinking for learning throughout the curriculum. Prerequisite: teaching certificate.

EDU 642  Instructional Multimedia 3(3-0)
Students will study, practice, and apply how to appropriately and effectively implement multimedia technologies in classroom environments. Prerequisites: EDU 590. This course is approved for offering in a distance learning format.

EDU 643  Instructional Design 3(3-0)
A study of the principles of instructional design. Designing instructional systems, processes in learning and instruction, delivery systems and evaluating instruction are considered. Prerequisites: EDU 590. This course is approved for offering in a distance learning format.

EDU 644  Early Childhood Concept Development through Integrated and Creative Activities 3(3-0)
Experiences leading to effective use and evaluation of creative media for young children. Development of appropriate principles, methods, and materials in art, crafts, music, dramatics, literature, movement, language arts, and science activities.

EDU 645  Problems in Science in the Elementary School 2(2-0)
Preparation, materials, planning activities, and organizing the scope and sequence of the new science curriculum. Prerequisite: EDU 340.

EDU 651  Supervision of Student and Intern Teaching 3(3-0)
Planning and guiding student teaching and intern experience Prerequisite: two years of teaching experience.

EDU 653  The Read/Write Web 3(3-1)
Development of Read/Write Web resources with PK-12 students in a classroom setting. Prerequisites: EDU 590, EDU 642, and EDU 643.

EDU 655  The Community College 3(3-0)
History, philosophy, programs, and practices of community and junior colleges.

EDU 658  Practicum in the Community College 3-6(Spec)
Opportunity to observe and teach, or work in library, counseling center or with administrators in a community college. Arrangements made with coordinator at beginning of semester prior to registration for the course. CR/NC only. Prerequisite: EDU 655.

EDU 660  Methods of Educational Research 3(3-0)
Interpreting research findings, planning and conducting scientific studies in education.

EDU 662  Applied Educational Measurement and Evaluation 3(3-0)
Applications of measurement and evaluation principles to educational settings with emphasis on construction and use of achievement tests. This course is approved for offering in a distance learning format. Prerequisite: admission to a graduate degree program in education.

EDU 670  Reading in the Secondary School II 3(Spec)
Materials and techniques of instruction employed by secondary school teachers and supervisors of reading. Prerequisites: EDU 330 and EDU 431, or EDU 450.

EDU 682  Psychology of Child Development 3(3-0)
Facts and generalizations concerning the growth of children from birth to maturity. Identical to PSY 682. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: Graduate status.

EDU 687  Independent Study 1-3(Spec)
Prerequisites: 15 hours of graduate work and permission of department chairperson. Subject to credit limitation.

EDU 688  Independent Study 1-3(Spec)
Prerequisites: 15 hours of graduate work and permission of department chairperson. Subject to credit limitation.

EDU 689  Independent Study 1-3(Spec)
Prerequisites: 15 hours of graduate work and permission of department chairperson. Subject to credit limitation.

EDU 695  Readings in Education 2(Spec)
Prerequisite: permission of department chairperson. Subject to credit limitation.

EDU 698  Thesis 1-6(Spec)
For M.A. students on Plan A. CR/NC only. Prerequisite: EDU 660.

EDU 705  Theory and Practice in Curriculum Development 3(3-0)
Fundamentals of curriculum planning, development, implementation, and evaluation. This course is approved for offering in a distance learning format.

EDU 706  Theory and Practice of Instruction 3(3-0)
Provides a review and interpretation of theories of instruction, analysis of teaching behaviors, modification methods of instructional design and development. Special emphasis on implementation strategies and tools for evaluating instruction and measuring outcomes.

EDU 707  Seminar: Issues in Educational Technology 3(3-0)
Study of selected issues relative to the use of new learning technologies in the classroom. Emphasis upon the learning theory which supports applied technologies. Prerequisite: EDU 590. This course is approved for offering in a distance learning format.

EDU 708  Distance Education 3(3-0)
Students completing this course will be equipped to use distance learning technologies to teach in instructional settings. This course is approved for offering in a distance learning format. Prerequisites: EDU 590 and EDU 595.

EDU 709  Innovative Uses of Technology 3(3-0)
A survey course of new and innovative applications of technology in educational settings. Students study and develop innovative instructional models utilizing technology. This course is approved for offering in a distance learning format. Prerequisites: EDU 590.

EDU 710  Seminar: Terminal Project 3(3-0)
This course requires the Master’s candidate to complete a terminal project related to the applications of technology in classroom settings. Prerequisites: students must have completed 30 hours on the M.A. in Educational Technology. Courses taken concurrently count toward the 30 hours.

EDU 730  Seminar: Issues in Literacy 3(3-0)
Examination of current issues in teaching reading and writing through class discussion and individual study of selected topics. Oral and written presentations of research findings. Prerequisites: EDU 630, EDU 632, EDU 636 and EDU 641.
EDU 755 Advanced Research Design and Interpretation (3-0)
Analysis of research designs, development of measurement devices, and interpretation of advanced statistical techniques. Prerequisite: EDU 660.

EDU 765 Seminar in Curriculum Problems (3-0)

EDU 770 Practicum in Systematic Curriculum Development (3-0)
This course will provide experience in developing curriculum for a specific content area. Prerequisite: a teaching certificate or admission to graduate school or teacher education.

EDU 777 Seminar: Issues in Education (3-0)
Capstone experience for the M.A. in Education program. Students conduct and report on a research project they have undertaken in the class. Prerequisites: Successful completion of all the coursework on the M.A. in Education program.

EDU 777 Seminars in Child Growth and Development 2-4(Spec)
Prerequisite: EDU 682. Subject to credit limitation.

EDU 780 Master of Arts Capstone Seminar (3-0)
The EDU 780 course prepares students for a 4 hour comprehensive examination by requiring researching, presentation, and discussion of topics in teacher education literature. Identical to MLE 780. Credit may not be earned in more than one of these courses.

Master of Arts (M.A.) in Middle Level Education (MLE)

Minimum Totals for Graduation: 36 hours
The Master of Arts in Middle Level Education has been developed based on teacher preparation standards written by the National Middle School Association and adopted by the National Council for the Accreditation of Teacher Education (NCATE), the accrediting body for Michigan teacher education programs. In addition, the coursework contains components to meet the standards approved by the Michigan State Board of Education for the Middle Level Endorsement. Any certified teacher meeting the requirements for entry into graduate studies at Central Michigan University will be able to enter this program.

The Master of Arts in Middle Level Education is a result of the efforts of the Middle Level Teacher Preparation Committee of the Department of Teacher Education and Professional Development. In addition, the design and implementation of this program have been funded by the W. K. Kellogg Foundation through the Michigan Schools in the Middle Project.

The Master of Arts in Middle Level Education will:
1. articulate a sound philosophy of middle level education;
2. promote the understanding of the developmental needs and characteristics of early adolescence and maintenance of a developmentally responsive learning environment;
3. prepare teachers to apply organizational structures and instructional strategies appropriate for the middle level learner, such as interdisciplinary teams, flexible scheduling, integrated instruction, active learning, and the use of a variety of classroom grouping patterns;
4. prepare teachers to work collaboratively with other teachers, staff, parents, and the community;
5. stress the integration of knowledge and the teaching of lifelong learning skills which facilitate communication, critical thinking and problem solving, and
6. require continuous and progressive teaching experiences which provide meaningful interaction with early adolescents and exposure to exemplary middle level programs and practices.

Admission Requirements, Retention & Termination Standards

Admission:
In addition to meeting the university's general admission requirements, the student must have a valid Michigan elementary or secondary teaching certificate or the equivalent. Courses taken to meet this admission requirement shall not count toward the master's degree. Those who do not possess the elementary or secondary teaching certificate should contact the Center for Student Services for information on how to meet certification requirements. Advisors for the master's program are assigned only after the student has been regularly or conditionally admitted to the College of Graduate Studies and has selected an option.

Regular admission in the program requires an undergraduate grade point average of at least 2.70 (on a 4-point scale). Conditional admission will be granted if the GPA is between 2.50 and 2.69. Students with a GPA below 2.50 will not be considered for candidacy for the graduate program in teacher education. A maximum of 9 hours taken before signing the master's program may be counted on the program. Students must earn a B- or better in each graded course.

Regular or conditional admission is required for assignment of a faculty advisor. Since the advisor and the graduate student must discuss and sign the program requirements, individuals interested in obtaining a degree should seek admission to the appropriate program early in their studies. Prior courses and transfer credits that may be included on the degree program are limited.

Program Requirements
To qualify for graduation, candidates for the Master of Arts in Middle Level Education degree must meet a residence requirement and demonstrate significant scholarly ability. This demonstration will typically involve the development and completion of a thesis (Plan A) or the completion of a comprehensive written examination at the end of the individual's coursework (Plan B).

The residence requirement differs for students following these plans. Plan A candidates must complete a minimum of one term in residence, constituting at least six semester hours of credit. Candidates who choose Plan B must complete two terms in residence with at least five semester hours of credit in each semester. Terms of residence may be any fall or spring semester or a six-week summer session in which the candidate successfully completes the required number of credits.

The program requires 36 semester hours of credit for Plan A and 36 semester hours of credit for Plan B. At least one-half the credits earned toward the degree must be taken at the 600 or 700 levels. Specific descriptions of program requirements are available in 421 EHS Building or online.

Degree Requirements

Required Courses
Select one of the following plans:

Plan A (15 hours)
EDU 613 - Current Educational Issues (3-0)
EDU 660 - Methods of Educational Research (3-0)
EDU 698 - Thesis 1-6(Spec)
EDU 755 - Advanced Research Design and Interpretation (3-0)
Plan B (9 hours)
EDU 613 - Current Educational Issues 3(3-0)
EDU 662 - Applied Educational Measurement and Evaluation 3(3-0)
EDU 780 - Master of Arts Capstone Seminar 3(3-0)

Residence Requirement for Plan A and Plan B: Students are required to complete a minimum of 12 semester hours of credit in graduate courses taken at the Mt. Pleasant campus or from Teacher Education Professional Development tenure and/or track faculty in coursework offered by CMU Off Campus Programs.

Concentration Core (18 hours)
MLE 641 - Young Adolescent Needs and Characteristics 3(3-0)
MLE 642 - Concepts, Structures, and Programs for Middle Level Schools 3(3-0)
MLE 643 - Student Diversity Issues in the Middle Level Classroom 3(3-0)
MLE 644 - Issues in Meeting the Diverse Needs of Middle Level Learners 3(3-0)
MLE 645 - Middle Level School Curriculum 3(3-0)
MLE 687 - Independent Study in Middle Level Education 1-6(Spec)

Note: These six courses would permit the student to earn a Michigan Middle Level Endorsement if the student also has preparation in two teaching fields which are broad, multidisciplinary, and encompass the major areas within those fields; successfully completes the required graduate level field experience; and passes the Michigan Middle Level Competency Test.

Electives (3-9 hours)
Select one of the following Options, 3 hours if using Plan A, 9 hours if using Plan B:

Option I
EDL 671 - Administration of Middle Schools 3(3-0)
EDU 590/SPE 510 - Advanced Technology in Education 3(2-3)
EDU 595 - Telecommunication in Education 3(2-2)
EDU 642 - Instructional Multimedia 3(3-0)
EDU 643 - Instructional Design 3(3-0)
COM 569 - Communication in the Classroom 3(3-0)
MLE 570 - Issues in Middle Level Education 1-3(Spec)
SPE 504 - Teaching Students with Emotional Impairment 3(3-0)
SPE 545 - Special Education Workshop 1-6(Spec)
SPE 550 - Teaching Culturally Diverse Students 3(3-0)
SPE 577 - Introduction to Specific Learning Disability 3(3-0)
SPE 579 - Teaching Students with Emotional Impairment 3(3-0)
SPE 675 - Teaching the Student with Learning Disabilities 3(3-0)

Option II
Content area coursework to meet one of the following criteria:
1. Strengthen undergraduate major/minor.
2. Diversity knowledge base to facilitate the integrated curriculum of middle level schools.
3. Complete a content area major or minor in a new field.
4. Meet the endorsement requirement for two broad teaching fields. Students seeking this option will be directed to an advisor for appropriate graduate-level course selections.

Total: 36 semester hours

Course Descriptions: MLE

MLE 570 Issues in Middle Level Education 1-3(Spec)
A focus on current issues in middle level education. Students will help select specific topics for in-depth study. Prerequisites: for undergraduates: admission to Teacher Education; MLE 381, MLE 382, MLE 383. For graduates: MLE 641, MLE 642, MLE 643.

MLE 613 Current Educational Issues 3(3-0)
Identification and analysis of significant, persistent issues in education in the United States and the relationship to student achievement and teacher effectiveness. Identical to EDU 613. Credit may not be earned in more than one of these courses. This course has been approved for offering in a distance learning format.

MLE 641 Young Adolescent Needs and Characteristics 3(3-0)
An orientation to the unique developmental needs and characteristics of young adolescents. Prerequisites: none.

MLE 642 Concepts, Structures, and Programs for Middle Level Schools 3(3-0)
An orientation to middle level education which focuses on the middle level school concept, structures, and programs. Prerequisite: MLE 641.

MLE 643 Student Diversity Issues in the Middle Level Classroom 3(3-0)
An orientation to the multiple aspect of human diversity in the middle level classroom. Prerequisite: MLE 641.

MLE 644 Issues in Meeting the Diverse Needs of Middle Level Learners 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: MLE 641, MLE 642, MLE 643, MLE 645.

MLE 645 Middle Level School Curriculum 3(3-0)
Curriculum for middle level classroom teachers to meet the unique developmental; needs and characteristics of young adolescents. Prerequisites: MLE 641, MLE 642, and MLE 643.

MLE 677 Independent Study in Middle Level Education 1-6(Spec)
An opportunity for students to undertake specialized study in middle level education. Prerequisites: approval of Program Advisor and Department Chairperson.

MLE 780 Master of Arts Capstone Seminar 3(3-0)
The MLE 780 course prepares students for a 4 hour comprehensive examination by requiring researching, presentation and discussion of topics in teacher education literature. Identical to EDU 780. Credit may not be earned in more than one of these courses.

Course Descriptions: LMT

Note: LMT classes are no longer being offered because no new students are being admitted to the MA in Library, Media and Technology program.

LMT 502 Cataloging and Classification 3(3-0)
Interdepartmental and Interdisciplinary Programs

This section describes programs that are interdepartmental or interdisciplinary. Please contact the director listed in each program for more information.

Interdisciplinary Graduate Programs

Discover how to become a future leader and innovator through interdisciplinary studies.

Interdisciplinary programs draw from two or more academic disciplines that work together to create a powerful learning experience and emphasize integrative learning, critical thinking and creative problem solving.

Benefits of Interdisciplinary study:

• Discover the value of integrating the study of various academic disciplines suited to your life-long learning interests
• Learn about creative solutions to some of today's most challenging problems
• Become an interdisciplinary thinker who analytically and creatively embraces new ideas
• Develop collaboration skills while working with others who have different perspectives on problems than yours
• Be prepared for graduate and professional study, and for careers in new and emerging fields
Certificate in Data Mining

This is an interdepartmental program. Contact the Mathematics, Computer Science, or Geography department for more information.

Minimum Totals for Graduation: 15 - 18 hours

The Data Mining Certificate program is designed to give each student a comprehensive training of basic foundation, advanced knowledge and applications of data mining. The primary goal is to develop a high quality program and a creative learning environment that enable students to acquire advanced data mining knowledge and experience in real world applications, team work and presentations that are essential in work place.

Admission Requirements, Retention and Termination Standards

Admission Requirements

Admission is dependent upon a student having completed at least three years of undergraduate program with a minimum GPA of 3.0 overall and at least 3 credit hours of basic statistics or equivalent. An international student must satisfy the required minimum TOEFL score as specified in the Graduate Bulletin. The consideration of admission deadline is the same as the University policy as specified in the Graduate Bulletin. The application deadline for consideration of a graduate teaching assistantship is March 1st. The materials include (1) undergraduate transcript or graduate transcript, if a student is already in a graduate program, (2) the graduate assistantship application form, and (3) three letters of recommendation.

Certificate Requirements

The Data Mining certificate program requires a successful completion of 15 to 18 credit hours of graduate course work. Students must have CMU graduate student status. If a student has not taken any of these courses, the student is required to take all the 18 credit hours. Students must have an earned Bachelor’s degree before receiving the certificate.

Required Core Courses (9 hours)

- CPS 685 - Pattern Recognition and Data Mining 3(3-0)
- GEO 503 - Geographic Information Systems 3(2-2)
- STA 591 - Data Mining Techniques I 3(3-0)

Primary Electives (6-9 hours)

Choose at least two out of the following courses. Primary electives are to be chosen in consultation with and approval of a data mining program advisor. The choice of two courses depends on the background a student has prior to joining the program.

- CPS 541 - Databases 3(3-0)
- CPS 585 - Applied Data Engineering 3(3-0)
- GEO 512 - Quantitative Methods for Spatial Analysis 3(2-2)
- STA 580 - Applied Statistical Methods I 3(3-0)

Notes: You may select CPS 585 OR 541, but not both. CPS 541 is recommended for Computer Science Majors.

Secondary Electives (0-6 hours)

Any graduate level quantitative or computational course. Secondary electives are to be chosen in consultation with and approval of a data mining program advisor.

Total: 15-18 semester hours

Degree Requirements (18 hours)

- CED 655 - Human Relations Skills 3(3-1)
- EDU 590/SPE 510 - Advanced Technology in Educaiton 3(2-3)
- EDU 614 - Advanced Educational Psychology 3(3-0)
- EDU 660 - Methods of Educational Research 3(3-0)
- EDU 705 - Theory and Practice in Curriculum Development 3(3-0)
- EDU 776 - Seminar: Issues of Education 3(3-0)

Note: EDU 776 Seminar: Issues in Education - Following accepted guidelines toward the end of their degree program, students are required to research, analyze and provide a plan of action relevant to a problem or opportunity within their own organization or professional field.

Notes for students in Coaching Option: Students will be required to complete PES 691 (Independent Study) instead of EDU 776.
Concentrations
Select one of the following:

Adult Education Concentration
This program is designed to provide knowledge and skills for individuals to function effectively in positions of leadership or teaching in the adult education environment. This is not a certification program for teachers or administrators but may be utilized for professional advancement.

Required Courses (15 hours)
EDL 622 - Adult Literacy and Society 3(3-0)
EDL 624 - Planning for Instruction in Nontraditional Settings 3(3-0)
EDL 626 - The Adult Learner 3(3-0)
EDL 667 - Administration of Community Education 3(3-0)
EDU 613 - Current Educational Issues 3(3-0)

Coaching Concentration
This program is designed to provide knowledge and skills for individuals to function as teachers and in coaching positions in schools. It is not a certification program for teachers or coaches but can satisfy the need for continuing certification of teachers. It is designed for educators who are seeking coaching skills, while at the same time, to enhance their teaching competencies.

Required Courses (5 hours)
Select from the following:
PES 570 - Advanced Coaching in Basketball 2(2-0)
PES 572 - Advanced Coaching in Baseball 2(2-0)
PES 574 - Advanced Coaching of Football 2(2-0)
PES 690 - Practicum 1-4(Spec)

Additional Requirements (10 hours)
Select from the following:
PES 560 - Principles and Foundations of Coaching 3(3-0)
PES 582 - Current Applications of Athletic Training Techniques 2(1-2)
PES 606 - Motor Learning and Human Performance 3(3-0)
PES 611 - Psychology of Sport 3(3-0)

Community College Concentration
This program is designed to provide knowledge and skills for individuals to function effectively in positions of leadership or teaching in a community college environment. This is not a certification program for teachers or administrators but may be utilized for professional advancement or as a base for a doctoral program in Community College Education.

Required Courses (15 hours)
Select from the following:
CED 502 - Student Development in Higher Education 3(3-1)
EDL 676 - Administration of Community Colleges 3(3-0)
EDL 778 - Contemporary Issues in Higher Education 3(3-0)
EDU 602 - Strategies and Techniques for Teaching 3(3-0)
EDU 613 - Current Educational Issues 3(3-0)
EDU 655 - The Community College 3(3-0)

Guidance and Development Concentration
This program is designed to provide knowledge and skills for individuals to function effectively in schools, businesses or in the nonprofit sector with special emphasis on managing relationships, making appropriate referrals and recognizing special needs of students, clients or co-workers. It is not a certification program for teachers, counselors or administrators as it presumes the participants are already certified and qualified in the technical aspects of their respective positions. It is designed for educators or practitioners who do not desire to be fully certified counselors but are seeking counseling skills to enhance their teaching competencies.

This non-certification program is designed to improve practitioners' skills in communicating with their students, colleagues, clients, and supervisors. The classes in this program focus directly on involving participants in skill-building and integration activities. Participants regularly test skills and ideas from courses taught at their work sites and refine the use of these skills through feedback from the instructor, supervisors, and other program participants. Many of the classes require that participants interact with their students, colleagues, clients, or supervisors outside of the university setting. EDU 776 is a capstone course in which participants conduct field or action-oriented research which is then reported in the form of a Plan B paper or project.

Note: This MA will not qualify the graduate for endorsement as a School Counselor.

Required Courses (15 hours)
CED 580 - Seminar: Professional Topics 1-12(Spec)
CED 608 - Understanding and Working with Couples and Families 3(3-0)
CED 612 - Work and Career in a Global Society 3(3-0)
CED 621 - Orientation to a Culturally Diverse Society 3(3-0)
CED 684 - Grief, Loss and Trauma 3(3-0)

Instructional Concentration
This program is designed to provide knowledge and skills for individuals to function effectively in positions of leadership or the teaching environment. This is not a certification program for teacher or administrators but may be utilized for professional advancement.

Required Courses (15 hours)
EDU 602 - Strategies and Techniques for Teaching 3(3-0)
EDU 613 - Current Educational Issues 3(3-0)
EDU 706 - Theory and Practice of Instruction 3(3-0)
EDU 765 - Seminar in Curriculum Problems 3(3-0)
EDU 770 - Practicum in Systematic Curriculum Development 3(3-0)

Total: 33 semester hours
Master of Arts (M.A.) in Humanities
Ronald Primeau, Ph.D., Director
241 Anspach Hall, 989-774-3117

Minimum Totals for Graduation: 30 hours
The Master of Arts in Humanities is a degree designed for generalists, for those more interested in synthesis than specialization. It provides an integrated study of the humanities in a cross-disciplinary format. Because the various areas of the humanities are naturally interrelated, this format emphasizes connection rather than fragmentation. The courses for the 30-semester hour program are generally selected from such traditional areas of the humanities as history, literature, philosophy, religion, music and art; they may, however, also include such areas as women's studies and anthropology. Please note that course selection among these disciplines will be more limited for on-campus students.

The program is flexible enough to meet the needs of a great variety of students. It is an appropriate degree choice for students seeking a graduate degree which offers educational development or a focus on interdisciplinary knowledge.

Note: Some courses listed here are not available on campus, but are offered only through Off-Campus Programs cohorts.

Admission Requirements, Retention and Termination Standards
Admission requirements are the same as those for admission to the College of Graduate Studies (baccalaureate degree and overall GPA of 2.7) and a minimum of 20 hours of coursework in areas of the Humanities (history, literature, philosophy, etc.) with GPA of 2.7.

Degree Requirements
Requirements I
A minimum of 24 hours of graduate credit in the Humanities including:

History Requirements (6-9 hours)
Select 6-9 hours in consultation with advisor. See Structure (Core Courses) below.

Literature Requirements (6-9 hours)
Select 6-9 hours in consultation with advisor. See Structure (Core Courses) below.

Other Requirements (6-9 hours)
Select 6-9 hours of coursework in any of the following areas approved by the student's faculty advisor:
Art
Music (non-studio/non-performance)
Religion
Philosophy
Cinema
See Structure (Core Courses) below.

Note: A minimum of 15 hours of the above courses must be in courses numbered 600 or above.

Requirements II
Select one of the following plans:

Plan A (6 hours)
Thesis with oral defense:
HUM 799 - Thesis 1-6(Spec)

Plan B (6 hours)
6 hours of elective coursework approved by faculty advisor, 3 hours of which may be in a curriculum development course (e.g., HST 601, ENG 615).

Students electing Plan B must submit a paper prepared in connection with a seminar or as an independent study that will serve as evidence of the student's scholarship.

Structure (Core Courses)
In order to ensure both coherence and the advantage of complementary disciplinary approaches in the program of studies, each student’s coursework must be approved in advance by a faculty advisor. Coursework leading to the degree will be organized around a core (15-18 hours) of courses that are integrated by topic or theme.

The following is a list of representative topics that have been approved by the M.A. in Humanities Council.

Core Courses I: The Rise of Industrial Society
Students selecting this core of courses would select five or six of the following:
B6A 525 : Film Genre Study 3-9(Spec)
BLR 597 : Special Topics 1-6(Spec)
ENG 656 : Seminar in American Literature 3-9(Spec)
HST 525 : The Industrialization of America 3(3-0)
HST 603 : Colloquium in U.S. History Since 1865 3-6(3-0)
MUS 597 : Special Studies 1-6(Spec)
PHL 597 : Special Topics In Philosophy 1-2(Spec)
REL 501 : Seminar in the Study of Religion 3(3-0)

Note: Seminar Topics for seminars listed above:
B6A 525 : Cautionary Tales for the Industrial Age: Science and the Individual in Cinema
BLR 597 : Transformation of American Law
ENG 656 : The Twenties and Thirties OR Realism and Naturalism
MUS 597 : Music and Technology
PHL 597 : Philosophy of the Arts
REL 501 : Religious Issues in the 20th Century

Core Courses II: Images and Ideas of Self
Students selecting this core of courses would select five or six of the following:
ENG 656 : Seminar in American Literature 3-9(Spec)
ENG 665 : Seminar in World Literature 3-9(Spec)
HST 603 : Colloquium in U.S. History Since 1865 3-6(3-0)
HUM 610 : Seminar in American Individualism 3(3-0)
MUS 597 : Special Studies 1-6(Spec)
MUS 713 : The Development of Jazz Through 1945 3(3-0)
PHL 525 : Philosophical Problems of the Self 3(3-0)
PHL 597 : Special Topics In Philosophy 1-2(Spec)
REL 501 : Seminar in the Study of Religion 3(3-0)

Note: Seminar Topics for seminars listed above:
ENG 656 : Images of Self in Contemporary American Fiction
OR American Romantic Authors
ENG 665 : The Emergence of Self
MUS 597 : Music of the Western World
PHL 597 : Philosophy of the Arts
REL 501 : Women in Religion
Core Courses III: Contemporary Issues in the Humanities: Race, Class and Gender

Students selecting this core of courses would select five or six of the following:

- ANT 588: Special Topics in Anthropology 1-0(Spec)
- ART 586: Seminar in Art History 3(3-0)
- BCA 525: Film Genre Study 3-9(Spec)
- ENG 656: Seminar in American Literature 3-9(Spec)
- HST 715: Seminar in the Civil War and Reconstruction 3(3-0)
- HUM 797: Special Topics in Humanities 1-2(Spec)
- PHL 597: Special Topics In Philosophy 1-2(Spec)
- REL 501: Seminar in the Study of Religion 3(3-0)
- SOC 502: Theories of Race Relations in Sociology 3(3-0)

Note: Seminar Topics for seminars listed above:

- ANT 588: Native American Culture
- ART 586: Native American Art
- BCA 525: Women in Film
- ENG 656: African-American Writers OR Women Writers
- HUM 797: Moral Issues in America: Race, Class and Gender OR Race, Class and Power: South Africa in the 20th Century
- PHL 595: Women in Philosophy
- REL 501: Religion, Race and Discrimination in America OR Women in Religion

Core Courses IV: Popular Culture Studies

Students selecting this core of courses would select five or six of the following:

- ANT 588: Special Topics in Anthropology 1-0(Spec)
- BCA 503: Critiquing Mass Media 3(3-0)
- BCA 525: Film Genre Study 3-9(Spec)
- BCA 625: Film and Video Theory and Criticism 3(3-0)
- ENG 656: Seminar in American Literature 3-9(Spec)
- ENG 665: Seminar in World Literature 3-9(Spec)
- HST 717: Seminar in the History of Twentieth Century America 3-6(3-0)
- HUM 610: Seminar in American Individualism 3(3-0)
- MUS 713: The Development of Jazz Through 1945 3(3-0)
- PHL 597: Special Topics In Philosophy 1-2(Spec)
- REL 501: Seminar in the Study of Religion 3(3-0)

Note: Seminar Topics for seminars listed above:

- ANT 588: High Technology and Sociocultural Change
- BCA 525: Cautionary Tales for the Industrial Age: Science and the Individual in the Cinema
- ENG 656: Issues in American Popular Culture
- ENG 665: Themes in Science Fiction and Fantasy
- HST 717: History of Rock and Roll OR History of Anti-War Movements
- PHL 597: Philosophical Ideas in Popular Culture
- REL 501: Religious Issues in Popular Culture

Total: 30 semester hours

Course Descriptions: HUM

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.

HUM 597 Special Studies in Humanities 1-12(Spec)
Prerequisite: permission of instructor.

HUM 610 Seminar in American Individualism 3(3-0)
Analysis of the varieties and values of American individualism through literary, historical and sociological sources. Prerequisite: Admission to M.A. in Humanities program.

HUM 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

HUM 797 Special Topics in Humanities 1-12(Spec)
Interdisciplinary study of selected topics in the humanities. Prerequisite: Permission of instructor, will vary by topic offered.

HUM 799 Thesis 1-6(Spec)
CR/NC only. Prerequisites: 15 hours of graduate work in the humanities and written permission of advisor.

NOTE: Some courses listed here are not available on campus, but are offered only through Off-Campus Programs cohorts.
Master of Science in Administration (M.S.A.)
Nana Korsah, Ph.D., Director
222 Rowe Hall; 989-774-6525

Minimum Totals for Graduation: 36 hours

The Master of Science in Administration degree is an interdisciplinary program developed to meet the educational needs and interests of administrators in both the public and nonprofit sectors. The primary focus of the degree program is applied action grounded in theory. The principal elements of this degree are knowledge, competencies, and practical processes needed for successful careers in administration.

The program includes a core of courses that provides the students with a base of common knowledge and competencies required for successful administration. In addition, the program provides a concentration of specialized courses in the student's area of professional interest. The program culminates in an integrative applied project that links the concepts of the program to the world of work and demonstrates the unity and coherence of the student's course of study.

Admission Requirements, Retention & Termination Standards (For On-Campus Students)

Admission

To be admitted to the Master of Science in Administration program, a candidate must meet the requirements for regular admission to the College of Graduate Studies (a baccalaureate degree from a college or university of recognized standing with a cumulative GPA of at least 2.7 or, optionally, 3.0 in the final sixty semester hours of graded coursework toward the bachelor's degree). At least sixty semester hours of undergraduate coursework must be graded. Applicants who possess an undergraduate GPA less than 2.7 may be considered for conditional admission. A maximum of six hours taken before admission to the MSA program may be counted toward the degree.

Note: To be admitted to the Software Engineering Administration concentration (offered only through Off-Campus Programs), the student must have completed the equivalent of MTH 175, MTH 132, CPS 180, CPS 181, CPS 210 and CPS 340. In addition, the student must have completed one year of work in which his or her major assignment dealt with program design or development. Completion of a computer science major may be substituted for the one year experience.

Competencies Required

Several MSA administrative core courses have prerequisites. These prerequisite courses are Accounting 201 or 203 and Statistics 228 or their equivalents. Students can satisfy the prerequisites for MSA 600, MSA 602, MSA 634, MSA 635, and MSA 640 in the following ways:

1. Successful completion of the course (grade of C or better) or its equivalent within three years prior to admission to the MSA program;
2. Pass a competency assessment exam, only offered if the student has previously taken the course and earned a grade of "C" or better. Examinations may be taken twice and must be passed with at least 70% accuracy; or
3. Take the course or its equivalent at CMU or another accredited institution and earn a "C" or better. Submit an official transcript if the course is not taken at CMU.

4. Take either the CLEP Financial Accounting test and submit official results of 50 or better or take the DSST Principles of Financial Accounting exam and submit official results of 47 or better. Take the DSST Principles of Statistics exam and submit official results of 48 or better.

Satisfactory Progress

Students must maintain a cumulative GPA of 3.0 or higher to remain in good standing. If a student's cumulative GPA falls below 3.0, the student will be placed on academic probation. Students on probation will be allowed an opportunity to raise the cumulative GPA to a 3.0 according to College of Graduate Studies policy. Students dismissed from the program may petition for readmission no sooner than one academic year after the semester they were dismissed. Coursework which is over seven years old may not be used toward the MSA degree. Course work which is over four years only may not be used toward the graduate certificate.

English Language Requirements for International Students

Applicants with TOEFL scores of 213 CBT, 550 PBT or 79 iBT and above or IELTS scores of 6.5 and above may be granted Regular admission to the MSA Program. Students with TOEFL scores between 500 and 549 PBT or 173 and 210 CBT or 61-78 iBT or IELTS scores of 5.5 or 6 should review the International Student Admission section on TOEFL scores in this Bulletin.

Advising

Upon admission to the MSA program, the student will be assigned an advisor.

The student is required to meet with his or her advisor to determine prerequisite(s) and core area requirements and to select the courses to meet the concentration's requirements. A record of the program authorization will be placed in the student's file in the College of Graduate Studies. Any course taken without the express written consent of the MSA Director may not be approved for fulfillment of the degree requirements.

Program Requirements

All Master of Science in Administration degree students are required to take three core courses: MSA 600, MSA 602 OR MSA 634 or MSA 635, and MSA 640. Other core courses must be selected in consultation with the student's academic advisor.

To qualify for graduation, candidates for the Master of Science in Administration degree or Graduate Certificates must meet all of the requirements found in the Academic Information "Degree Requirements" section of the Graduate Bulletin and the following requirements:

1. Earned a minimum of 36 semester hours of acceptable graduate credit (12-18 semester hours of which must be in the area of concentration).
2. Earned a minimum of 18 semester hours from Central Michigan University.
3. Submitted evidence of scholarship by meeting the Plan B Board (IRB) requirements.
4. Successfully completed these required courses: MSA 600, MSA 602 OR MSA 634 OR MSA 635, MSA 640, and MSA 685 OR MSA 699.

(continued)
5. Applied no more than 15 semester hours of College of Business Administration courses on the program plan. College of Business Administration courses are:
   a. Courses carrying designators ACC, BIS, BLR, FIN, HSA, MGT and MKT.
   b. MSA 601, MSA 602 OR MSA 634 or MSA 635, MSA 660, and MSA 675.
   c. Prior learning assessment credits identified as having business school content. (applies to off campus only)
   d. Courses transferred from a school of business or management which would be considered College of Business Administration courses at CMU.

6. Have an approved program plan on file.

7. Completed all requirements for the degree within seven years of the awarding of the master’s degree.

In addition:
   a. MSA Certificate programs may not use more than 12 credits in College of Business Administration courses;
   b. MSA Certificate programs must be completed within four years prior to the awarding of the graduate certificate;
   c. business courses taken on any certificate program will not apply to any business degree at CMU; and
   d. courses with MSA designators may not be used toward an MBA degree at CMU and CMU courses with MBA designators may not be used toward the MSA degree.

**Degree Requirements**

<table>
<thead>
<tr>
<th>Required Core I (6 hours)</th>
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<tbody>
<tr>
<td>MSA 600 - Foundations of Research Methods in Administration 3(3-0)</td>
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<tr>
<td>MSA 640 - Quantitative Applications in Decision Making 3(3-0)</td>
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<th>Required Core II (3 hours)</th>
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<tr>
<td>Select one of the following:</td>
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<tr>
<td>MSA 602 - Financial Analysis, Planning and Control 3(3-0)</td>
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<td>MSA 634 - Managerial Accounting Concepts 3(3-0)</td>
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<tr>
<td>MSA 635 - Financial Management 3(3-0)</td>
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<tr>
<th>Required Core III (6-12 hours)</th>
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<tbody>
<tr>
<td>Select hours from the following:</td>
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<tr>
<td>MSA 601 - Organizational Dynamics and Human Behavior 3(3-0)</td>
</tr>
<tr>
<td>MSA 603 - Strategic Planning for the Administrator</td>
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<tr>
<td>MSA 604 - Administration, Globalization and Multiculturalism 3(3-0)</td>
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<tr>
<td>MSA 610 - Environments in Administration 3(3-0)</td>
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<tr>
<td>MSA 620 - Effective Administration and Organizational Behavior 3(3-0)</td>
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<td>MSA 650 - Organization Theory: Strategy and Structure 3(3-0)</td>
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<td>MSA 660 - Marketing Administration 3(3-0)</td>
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<tr>
<td>MSA 661 - Diversity and Multiculturalism in the Workplace 3(3-0)</td>
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<tr>
<td>MSA 675 - Strategic Policy Administration 3(3-0)</td>
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<tr>
<td>MSA 681 - Administrative Practicum 1-3(Spec)</td>
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<td>MSA 690 - Internship 1-6(Spec)</td>
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<tr>
<td>MSA 696 - Special Topics 3(Spec)</td>
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**Notes:**
- Students may not count both MSA 620 and MSA 601 on a certificate or degree program.
- Students may not count both MSA 650 and MSA 601 on a certificate or degree program.
- Students may not count both MSA 661 and MSA 604 on a certificate or degree program.

- Students may substitute up to six (6) credits of courses on this concentration providing the courses are consistent with one or more of the categories listed below. The use of the substitutes must be recommended by the advisor and approved by the MSA Director.

**Acquisitions Administration**

- The Acquisitions Administration concentration prepares administrators with a focus on acquisitions by providing a knowledge base in purchasing, regulatory concepts and related factors in acquisitions administration. Students will select 15 credits in consultation with their advisor.

**Required Courses (6 hours)**

| MGT 533 - Purchasing Strategy 3(3-0) |
| PSC 522 - Regulatory Processes and Administrative Law 3(3-0) |

**Electives (9 hours)**

- Select three of the following:
  - IET 500 - Production Concepts 3(3-0)
  - IET 527 - Industrial Safety Management 3(3-0)
  - MGT 542 - Inventory and Materials Management 3(3-0)
  - MGT 543 - Management and Control of Quality 3(3-0)
  - PSC 514 - American Public Policy Making 3(3-0)
  - PSC 712 - Implementation and Reform of Public Programs 3(3-0)
  - PSC 714 - Program Analysis and Evaluation 3(3-0)

**General Administration**

**Statement of Purpose for the Concentration**

- The General Administration concentration is designed to serve the needs of a very heterogeneous group of students. The intent is to offer a program of study which provides moderate structure through study in areas that are applicable to a wide variety of administrative settings. In addition, the student is afforded considerable flexibility in designing a program of study which avoids duplication of previous course work, training, or experience by allowing additional study in areas of choice.

**General Administration Concentration Areas**

- (12-18 hours)

**Guide to Choosing Courses**

- Students are encouraged to complete courses listed within a broad range of categories. If not taken as part of the core curriculum, any one (1) MSA designator course may be completed to partially fulfill the requirements of the General Administration concentration.

- Students may substitute up to six (6) credits of courses on this concentration providing the courses are consistent with one or more of the categories listed below. The use of the substitutes must be recommended by the advisor and approved by the MSA Director.
Concentration Courses I  
Information Systems and Analysis  
The integration of computer and production systems into administrative decision making.
BIS 601 - Management Information Systems 3(3-0)  
CPS 603 - Computer Information Systems 3(3-0)  
ECO 532 - Economic Forecasting 3(3-0)  
IET 500 - Production Concepts 3(3-0)  
MKT 555 - Market and Sales Forecasting 3(3-0)  
Concentration Courses II  
International Systems, Issues, and Problems  
The study of systems, issues, and problems that impact upon dynamic organizations operating within a global environment.
FIN 573 - International Finance 3(3-0)  
COM 667 - Seminar in Intercultural Communication 3(3-0)  
MGT 667 - International Business 3(3-0)  
MKT 560 - International Marketing 3(3-0)  
PSC 555 - International Law I 3(3-0)  
Concentration Courses III  
Legal and Political Systems  
The nature of legal and political systems and how they impact the operation of organizations and individual decision making.
ECO 515 - Collective Bargaining and Labor Law 3(3-0)  
PSC 514 - American Public Policy Making 3(3-0)  
PSC 522 - Regulatory Processes and Administrative Law 3(3-0)  
Concentration Courses IV  
Organizational Behavior/Human Resources Administration  
The study of individuals within the work organization and the systems and processes that affect their behavior.
CED 665 - Human Relations Skills 3(3-1)  
COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)  
MGT 643 - Personnel Management 3(3-0)  
MGT 646 - Labor Relations Issues 3(3-0)  
PSC 711 - Public Personnel Administration Practice 3(3-0)  
PSC 785 - Strategic Leadership 3(3-0)  
PSY 535 - Organizational Psychology 3(3-0)  
Concentration Courses V  
Organizational Communications  
Improving communication of individuals and groups within and between organizations.
EDL 610 - Grants and Fund Procurement 3(3-0)  
COM 560 - Communication and Social/Organizational Change 3(3-0)  
COM 561 - Communication in Conflict Management 3(3-0)  
COM 667 - Seminar in Intercultural Communication 3(3-0)  
JRN 670 - Public Relations Management 3(3-0)  
MKT 555 - Market and Sales Forecasting 3(3-0)  
Concentration Courses VI  
Social and Economic Systems  
The nature of social and economic systems and how they constrain, control, and impact the operational effectiveness of operations.
ECO 603 - Economic Effects of Urbanization and Technology 3(3-0)  
ECO 625 - Firm Behavior and Game Theory 3(3-0)  
ECO 660 - Public Finance and Fiscal Policy 3(3-0)  
IET 524 - Technology and Environment 3(3-0)  
PHL 518 - Professional Ethics 3(3-0)  
PSC 774 - Strategic Planning for Public/Non-Profit Organizations 3(3-0)  
SOC 512 - Industrial Sociology 3(3-0)  
Note: Students may not count both MSA 620 and PSY 535 on a certificate or degree program. Students may not count both ECO 515 and MGT 646 on a certificate or degree program.

Health Services Administration  
The Health Services Administration concentration is designed to provide the knowledge and skills required for directors, administrators and supervisors in health services. Students will select 15-18 credits in consultation with their advisor.

Required Courses (12 hours)  
HSC 507 - Introduction to Health Service Organizations and Systems 3(3-0)  
HSC 520 - Health Services Administration 3(3-0)  
HSC 570 - Financial Aspects of Health Services Organizations 3(3-0)  
HSC 571 - Legal Aspects of Health Services Organizations 3(3-0)  
Note: Advisors may recommend to the MSA Director the substitution of another course for HSC 520, if the student has appropriate management experience.

Electives (3-6 hours)  
HSC 538 - Development of Proposals and Reports in Health Administration 3(3-0)  
HSC 544 - Biostatistics 3(2-1)  
HSC 545 - Health Planning 3(3-0)  
HSC 572 - Quality Improvement in Health Services 3(3-0)  
HSC 581 - Managed Care: Origins, Organizations, and Operations 3(3-0)  
HSC 617 - Community and Public Health 3(3-0)  
HSC 700 - Program Evaluation in the Health Fields 3(3-0)

Hospitality & Tourism Administration  
Note: CMU is not presently accepting students into this program.

The Hospitality and Tourism Administration Concentration is designed to enable students to examine suppliers of hospitality service including: hotel/resort facilities, passenger transportation carriers, food/beverage providers, and conference and event providers. Students are provided with background and competency in the following areas: hospitality service provider processes and organization, governmental regulation of the industry and international tourism controls, managerial tools and techniques, and pricing considerations.

Required Courses (12 hours)  
HSA 546 - International Tourism 3(3-0)  
HSA 547 - Hospitality Industry Organizations and Operations 3(3-0)  
HSA 548 - Current Research Issues in Hospitality and Tourism 3(3-0)  
HSA 546 - Management in the Hospitality Service Sector 3(3-0)  

Electives (0-3 hours)  
One specialized course determined by the MSA Director.

Note: No more than a total of 15 hours of the College of Business Administration courses may be used on the program plan.
Human Resources Administration
The Human Resources Administration concentration provides a program of study for the student who is pursuing, or intends to pursue, a career in the field of Human Resources. The concentration is designed to provide students with an overall background in the field as well as in the specific areas of Labor Relations, Staffing, Training and Organization Development. Students will select 12-18 credits in consultation with their advisor.

Course Requirements (12-18 hours)

Guide to Choosing Courses: Students are required to take one course from Category 1, preferably before taking other courses in the concentration. In order to produce the strongest preparation, it is recommended that students take one course from Categories 2 and 3 and two courses from Category 4.

Category 1 - Survey of Human Resources Administration Courses (Required)
Take one of the following, preferably before taking other courses in the concentration.
- MGT 643 - Personnel Management 3(3-0)
- PSC 711 - Public Personnel Administration Practice 3(3-0)

Category 2 - Labor Relations Courses
It is recommended that students take one of the following:
- ECO 515 - Collective Bargaining and Labor Law 3(3-0)
- COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
- MGT 646 - Labor Relations Issues 3(3-0)

Note: Students may not count both ECO 515 and MGT 646 on a degree program.

Category 3 - Training & Organization Development Courses
It is recommended that students take one of the following:
- CED 655 - Human Relations Skills 3(3-1)
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 561 - Communication in Conflict Management 3(3-0)
- MGT 649 - Seminar in Organizational Development 3(3-0)
- PSY 736 - Strategies for Interventions in Social Systems 3(Spec)

Note: Students may not count both COM 560 and COM 561 within the HRA concentration.

Category 4 - Staffing Courses
It is recommended that students take two of the following:
- ECO 614 - Seminar in Labor Economics 3(3-0)
- MGT 645 - Personnel Compensation Practice and Process 3(3-0)
- MGT 647 - Employee Selection and Evaluation 3(3-0)
- PSY 536 - Personnel Psychology 3(3-0)
- PSY 636 - Organizational Applications of Personnel Psychology 3(3-0)

Note: Students may not count both MGT 647 and PSY 536 on a degree program.

Information Resource Management
The Information Resource Management Concentration is designed to enable students to develop a comprehensive management approach to the introduction of information systems in an organization, in order to ensure that the information technology solution which is chosen will be deemed the one most appropriate. Students will select 12-18 credits in consultation with their advisor.

Required Courses I (3 hours)
- BIS 634 - Information Resources Management 3(3-0)

Required Courses II (3 hours)
Select one of the following:
- BIS 601 - Management Information Systems 3(3-0)
- CPS 603 - Computer Information Systems 3(3-0)

Note: Students may not count both CPS 603 and BIS 601 on an IRM concentration or certificate.

Required Courses III (3 hours)
Select one of the following:
- BIS 630 - Systems Analysis and Design 3(3-0)
- CPS 510 - Software Systems Engineering 3(3-0)

Note: Students may not count both CPS 510 and BIS 630 on an IRM concentration or certificate.

Required Courses IV (3 hours)
Select one of the following:
- BIS 635 - Business Systems Applications 3(3-0)
- CPS 612 - Software Project Management 3(3-0)

Note: Students may not count both CPS 612 and BIS 635 on an IRM concentration or certificate.

Required Courses V (3-6 hours)
One specialized course determined by the MSA Director.

International Administration
The International Administration concentration is designed to provide the appropriate educational background for students who are interested in practicing administration in international settings. Those who have administrative responsibilities with international dimensions, but work in the United States, would also find it helpful.

Students will demonstrate a sensitivity to contemporary cultural variations and the need for understanding them. This may be evidenced by graduate or undergraduate coursework, experience or other appropriate means.

Required Courses (12-18 hours)
- ANT 506/SOC 506 - Comparative Cultural Systems 3(3-0)
- ECO 655 - Seminar in International Economics 3(3-0)
- FIN 573 - International Finance 3(3-0)
- COM 667 - Seminar in Intercultural Communication 3(3-0)
- MGT 667 - International Business 3(3-0)
- MKT 560 - International Marketing 3(3-0)
- PSC 551 - Seminar in International Relations 3(3-0)
- PSC 555 - International Law I 3(3-0)
- PSC 651 - Comparative Political & Economic Systems 3(3-0)

When appropriate, other courses may be substituted with the approval of the MSA Director.
Leadership

The Leadership Concentration enables students to enhance their knowledge and skills in the areas of leadership, group dynamics, organizational change, management of conflict, negotiation, cultural diversity and communication. Students will select 12-18 credits in consultation with their advisor.

Required Course (3 hours)
PSC 785 - Strategic Leadership 3(3-0)

Electives (9-15 hours)
CED 655 - Human Relations Skills 3(3-1)
ECO 515 - Collective Bargaining and Labor Law 3(3-0)
COM 560 - Communication and Social/Organizational Change 3(3-0)
COM 561 - Communication in Conflict Management 3(3-0)
COM 565 - Communication Training in Organizations 3(3-0)
COM 664 - Seminar in Organizational Communication 3(3-0)
COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
COM 667 - Seminar in Intercultural Communication 3(3-0)
MGT 646 - Labor Relations Issues 3(3-0)
MGT 649 - Seminar in Organizational Development 3(3-0)
MA 620 - Effective Administration and Organizational Behavior 3(3-0)
MA 696 - Special Topics 3(Spec)
PHL 518 - Professional Ethics 3(3-0)
PSY 531 - Group Dynamics 3(3-0)
PSY 535 - Organizational Psychology 3(3-0)

Plus one specialized course determined by the MSA Director

Note: Students may not count both ECO 515 and MGT 646 or both MA 620 and PSY 535 on a certificate or degree program.

Long-Term Care Administration

Note: CMU is not currently accepting students into this program.

The Long-Term Care Administration concentration enables students to enhance their knowledge and skills in the areas of health services administration, long-term care administration, and resident care issues. This program is offered through Off-Campus Programs only.

Required Courses (18 hours)
GRN 632 - Public Policy and Aging 3(3-0)
HSC 520 - Health Services Administration 3(3-0)
HSC 570 - Financial Aspects of Health Services Organizations 3(3-0)
HSC 591 - Legal & Regulatory Aspects of Long-Term Care 3(3-0)
HSC 592 - Administration Issues in Long-Term Care 3(3-0)
HSC 593 - Resident Care Issues in Long-Term Care Administration 3(3-0)

Note: Students who have taken HSC 520 and/or HSC 570 as part of another concentration may select substitutes from the following courses: GRN 631, HSC 506, HSC 507, HSC 545, HSC 572, or HSC 581.

Organizational Communication

The Organizational Communication concentration provides students with a thorough grounding in the theory and practice of effective oral and written communication in modern organizations.

Required Courses (15 hours)
COM 560 - Communication and Social/Organizational Change 3(3-0)
COM 561 - Communication in Conflict Management 3(3-0)

Public Administration

The Public Administration Concentration is designed to prepare students for careers in public sector administration. Broadly, the objectives of the program are to provide students with background and competency in five areas including:

1. the political, social, and economic environment of public administration;
2. public management process;
3. public policy analysis;
4. research and analytic methods; and
5. organization theory and behavior.

Required Courses (15-18 hours)
Select five or six from the following:
ECO 515 - Collective Bargaining and Labor Law 3(3-0)
COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
MGT 646 - Labor Relations Issues 3(3-0)
MGT 649 - Seminar in Organizational Development 3(3-0)
PSY 532 - Regulatory Processes and Administrative Law 3(3-0)
CMS 561 - American State Government and Administration 3(3-0)
PSC 563 - Politics and Policy in Urban Communities 3(3-0)
PSC 565 - Managing Modern Local Government 3(3-0)
PSC 566 - Intergovernmental Relations in the United States 3(3-0)

PSC 610 - Foundations of Public Administration 3(3-0)
PSC 711 - Public Personnel Administration Practice 3(3-0)
PSC 713 - Public Budgeting and Finance 3(3-0)
PSC 714 - Program Analysis and Evaluation 3(3-0)
PSC 774 - Strategic Planning for Public/Non-Profit Organizations 3(3-0)
PSC 775 - Organization Theory in Public Administration 3(3-0)
PSC 785 - Strategic Leadership 3(3-0)

Note: Only one of the following may be used to fulfill concentration requirements: ECO 515, COM 665, or MGT 646.

Note: Students may not count both PSC 775 and CMS 561 on a certificate or degree program.

Recreation & Park Administration

The Recreation, Parks, and Leisure Administration concentration is designed to provide students with background and competencies in administration, grant writing, evaluation, current issues, as well as areas of individualized interest. Students will select 15-18 credits in consultation with their advisor.

Required Courses (9 hours)
RPL 605 - Administration of Leisure Services Systems 3(3-0)
RPL 611 - Evaluation in Recreation and Leisure Services 3(3-0)
RPL 618 - Issues in Leisure 3(3-0)
Electives (6-9 hours)
Select in consultation with an advisor, dependent upon whether MSA 685 or MSA 690 is chosen.
RPL 508 - Budgeting for Leisure Service Agencies 3(3-0)
RPL 511 - Liability and Risk Management in Leisure Services 3(3-0)
RPL 521 - Fund Development & Grant Writing for Public & Non-Profit Organizations 3(3-0)
RPL 545 - Marketing of Leisure Services 3(3-0)
RPL 552 - Environmental Interpretation 3(3-0)
RPL 600 - Advanced Issues in Recreation 1-6(Spec)
RPL 620 - Planning for Parks and Recreation Facilities 3(3-0)
RPL 652 - Outdoor Recreation 3(3-0)
RPL 791 - Independent Study 2(Spec)

Software Engineering Administration
Note: CMU is not currently accepting students into this program.
The Software Engineering Administration program provides software managers with concepts, analytical skills, and methods of software engineering management of large, complex software systems, including those embedded in other systems. Graduates are prepared for positions requiring the management of people and resources in software intensive organizations. This program is offered through Off-Campus Programs only.

Admission Requirements for Concentration
To be admitted to this concentration, the student must have completed the equivalent of MTH 175, MTH 132, CPS 180, CPS 181, CPS 210 and CPS 340. In addition, the student must have completed one year of work in which his or her major assignment dealt with program design or development. Completion of a computer science major may be substituted for the one year experience.

Required Courses (15-18 hours)
Select from the following:
PES 603 - Administration of Sport and Physical Education 3(3-0)
PES 620 - Sport - An Interdisciplinary Study 3(3-0)
PES 625 - Facilities for Sport and Physical Education 3(3-0)
PES 640 - Sport and the Law 3(3-0)
PES 650 - Sport Marketing 3(3-0)
PES 690 - Practicum 1-4(Spec)

Vehicle Design & Manufacturing Administration
The Vehicle Design and Manufacturing Administration (VDMA) concentration prepares students to take leadership responsibility in vehicle design and manufacturing administration.

Required Courses (18 hours)
IET 500 - Production Concepts 3(3-0)
IET 501 - Application of Industrial Management Principles 3(3-0)
IET 524 - Technology and Environment 3(3-0)
IET 527 - Industrial Safety Management 3(3-0)
MGT 542 - Inventory and Materials Management 3(3-0)
MGT 543 - Management and Control of Quality 3(3-0)

Note: No more than a total of 15 hours of College of Business courses may be used on the program plan.

Total: 36 semester hours
MSA Graduate Certificates

The following MSA Graduate Certificates are offered:

- Acquisitions Administration
- General Administration
- Health Services Administration
- Hospitality and Tourism Administration
- Human Resources Administration
- Information Resources Administration
- International Administration
- Leadership
- Long-Term Care Administration
- Organizational Communication
- Public Administration
- Software Engineering Administration
- Vehicle Design and Manufacturing Administration

Note: Not all certificates are available at the main campus location.

The 15-18 credit MSA Graduate Certificate program is designed for regularly admitted graduate students who desire advanced training in the field of administration. Credits successfully earned with the certificate program may be used toward the MSA degree, if the concentration is the same. Students will not be allowed to use the same course for two different concentrations. Students may substitute courses only with the approval of the MSA Director. Students may use up to 6 transfer credits providing they meet the coursework and other requirements must be completed within four years prior to the awarding of a graduate certificate. Prior learning credit may not be used on the certificate program.

Note: Students may not use more than 12 credits of College of Business courses. Required courses: 5-6 courses from the appropriate concentration.

Acquisitions Administration Certificate

Minimum Totals for Graduation: 15 hours

Required Courses (6 hours)
- MGT 533 - Purchasing Strategy 3(3-0)
- PSC 522 - Regulatory Processes and Administrative Law 3(3-0)

Electives (9 hours)
- Select three of the following:
  - IET 500 - Production Concepts 3(3-0)
  - IET 527 - Industrial Safety Management 3(3-0)
  - MGT 542 - Inventory and Materials Management 3(3-0)
  - MGT 543 - Management and Control of Quality 3(3-0)
  - PSC 514 - American Public Policy Making 3(3-0)
  - PSC 712 - Implementation and Reform of Public Programs 3(3-0)
  - PSC 714 - Program Analysis and Evaluation 3(3-0)

Total: 15 semester hours

General Administration Certificate

Minimum Totals for Graduation: 15 hours

Students are encouraged to complete courses listed within a broad range of categories. If not taken as part of the core curriculum, any one (1) MSA designator course may be completed to partially fulfill the requirements of the General Administration concentration.

Students may substitute up to six (6) credits of courses on this concentration providing the courses are consistent with one or more of the categories listed below. The use of the substitutes must be recommended by the advisor and approved by the MSA Director.

Required Courses (15-18 hours)
- BIS 601 - Management Information Systems 3(3-0)
- CED 655 - Human Relations Skills 3(3-1)
- CPS 603 - Computer Information Systems 3(3-0)
- EDL 610 - Grants and Fund Procurement 3(3-0)
- ECO 515 - Collective Bargaining and Labor Law 3(3-0)
- ECO 532 - Economic Forecasting 3(3-0)
- ECO 603 - Economic Effects of Urbanization and Technology 3(3-0)
- ECO 625 - Firm Behavior and Game Theory 3(3-0)
- ECO 660 - Public Finance and Fiscal Policy 3(3-0)
- FIN 573 - International Finance 3(3-0)
- IET 500 - Production Concepts 3(3-0)
- IET 524 - Technology and Environment 3(3-0)
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 561 - Communication in Conflict Management 3(3-0)
- COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
- COM 667 - Seminar in Intercultural Communication 3(3-0)
- JRN 670 - Public Relations Management 3(3-0)
- MGT 643 - Personnel Management 3(3-0)
- MGT 646 - Labor Relations Issues 3(3-0)
- MGT 667 - International Business 3(3-0)
- MKT 555 - Market and Sales Forecasting 3(3-0)
- MKT 560 - International Marketing 3(3-0)
- PSC 555 - International Law I 3(3-0)
- PSC 711 - Public Personnel Administration Practice 3(3-0)
- PSC 774 - Strategic Planning for Public/Non-Profit Organizations 3(3-0)
- PSC 785 - Strategic Leadership 3(3-0)
- PSY 535 - Organizational Psychology 3(3-0)
- SOC 512 - Industrial Sociology 3(3-0)

Note: Students may not use both ECO 515 and MGT 646 on a certificate or degree program.

Note: Students may not use both MSA 620 and PSY 535 on a certificate or degree program.

Total: 15 semester hours

Health Services Administration Certificate

Minimum Totals for Graduation: 15 hours

Required Courses (12 hours)
- HSC 507 - Introduction to Health Service Organizations and Systems 3(3-0)
- HSC 520 - Health Services Administration 3(3-0)
- HSC 570 - Financial Aspects of Health Services Organizations 3(3-0)
- HSC 571 - Legal Aspects of Health Services Organizations 3(3-0)

Note: Advisors may recommend to the MSA Director the substitution of another course for HSC 520, if the student has appropriate management experience.

Elective Courses (3 hours)
- Select one of the following:
  - HSC 538 - Development of Proposals and Reports in Health Administration 3(3-0)
  - HSC 544 - Biostatistics 3(2-1)
  - HSC 545 - Health Planning 3(3-0)
  - HSC 572 - Quality Improvement in Health Services 3(3-0)
  - HSC 581 - Managed Care: Origins, Organizations, and Operations 3(3-0)
- HSC 617 - Community and Public Health 3(3-0)
- HSC 700 - Program Evaluation in the Health Fields 3(3-0)

Total: 15 semester hours
Hospitality and Tourism Administration Certificate

Note: CMU is not currently accepting students into this program.

Minimum Totals for Graduation: 15 hours

Required Courses (15 hours)
- HSA 542 - International Tourism 3(3-0)
- HSA 543 - Hospitality Industry Organizations and Operations 3(3-0)
- HSA 544 - Current Research Issues in Hospitality and Tourism 3(3-0)
- HSA 546 - Management in the Hospitality Service Sector 3(3-0)

Plus one specialized course determined by the MSA Director

Electives (0-3 hours)
- One specialized course determined by the MSA Director.

Total: 15 semester hours

Human Resources Administration Certificate

Minimum Totals for Graduation: 15 hours

Course Requirements (15 hours)

Students are required to take one course from Category 1, preferably before taking other courses in the concentration. In order to produce the strongest preparation, it is recommended that students take one course from Categories 2 and 3, and two courses from Category 4.

Category 1 - Survey of Human Resources Administration (3 hours) (Required)
- Take one of the following, preferably before taking other courses in the concentration:
  - MGT 643 - Personnel Management 3(3-0)
  - PSC 711 - Public Personnel Administration Practice 3(3-0)

Category 2 - Labor Relations Courses
- It is recommended that students take one of the following:
  - ECO 515 - Collective Bargaining and Labor Law 3(3-0)
  - COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
  - MGT 646 - Labor Relations Issues 3(3-0)

Note: Students may not count both ECO 515 and MGT 646 on a certificate or degree program.

Category 3 - Training & Organization Development Courses
- It is recommended that students take one of the following:
  - CED 655 - Human Relations Skills 3(3-1)
  - COM 560 - Communication and Social/Organizational Change 3(3-0)
  - COM 561 - Communication in Conflict Management 3(3-0)
  - MGT 649 - Seminar in Organizational Development 3(3-0)
  - PSY 736 - Strategies for Interventions in Social Systems 3(Spec)

Note: Students may not count both COM 560 and COM 561 within the HRA certificate or concentration.

Category 4 - Staffing Courses
- It is recommended that students take two of the following:
  - ECO 614 - Seminar in Labor Economics 3(3-0)
  - MGT 645 - Personnel Compensation Practice and Process 3(3-0)
  - MGT 647 - Employee Selection and Evaluation 3(3-0)
  - PSY 536 - Personnel Psychology 3(3-0)
  - PSY 636 - Organizational Applications of Personnel Psychology 3(3-0)

Note: Students may not count both MGT 647 and PSY 536 on a certificate or degree program.

Total: 15 semester hours

Information Resource Management Certificate

Minimum Totals for Graduation: 15 hours

Required Courses I (3 hours)
- BIS 634 - Information Resources Management 3(3-0)

Required Courses II (3 hours)
- BIS 601 - Management Information Systems 3(3-0)
- CPS 603 - Computer Information Systems 3(3-0)

Note: Students may not count both BIS 601 and CPS 603 on an IRM concentration or IRM certificate.

Required Courses III (3 hours)
- BIS 630 - Systems Analysis and Design 3(3-0)
- CPS 510 - Software Systems Engineering 3(3-0)

Note: Students may not count both BIS 630 and CPS 510 on an IRM concentration or IRM certificate.

Required Courses IV (3 hours)
- BIS 635 - Business Systems Applications 3(3-0)
- CPS 612 - Software Project Management 3(3-0)

Note: Students may not count both BIS 635 and CPS 612 on an IRM concentration or IRM certificate.

Required Courses V (3 hours)
- One specialized course determined by the MSA Director.

Total: 15 semester hours

International Administration Certificate

Minimum Totals for Graduation: 15 hours

Required Courses (15 hours)
- ANT 506/SOC 506 - Comparative Cultural Systems 3(3-0)
- ECO 655 - Seminar in International Economics 3(3-0)
- FIN 573 - International Finance 3(3-0)
- COM 667 - Seminar in Intercultural Communication 3(3-0)
- MGT 667 - International Business 3(3-0)
- MKT 560 - International Marketing 3(3-0)
- PSC 551 - Seminar in International Relations 3(3-0)
- PSC 555 - International Law I 3(3-0)
- PSC 651 - Comparative Political & Economic Systems 3(3-0)

Total: 15 semester hours

Leadership Certificate

Minimum Totals for Graduation: 15 hours

Required Course
- PSC 785 - Strategic Leadership 3(3-0)

Electives (12 hours)
- CED 655 - Human Relations Skills 3(3-1)
- ECO 515 - Collective Bargaining and Labor Law 3(3-0)
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 561 - Communication in Conflict Management 3(3-0)
- COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
- COM 667 - Seminar in Intercultural Communication 3(3-0)
- MGT 646 - Labor Relations Issues 3(3-0)
- MGT 649 - Seminar in Organizational Development 3(3-0)
- MSA 620 - Effective Administration and Organizational Behavior 3(3-0)
- MSA 696 - Special Topics 3(Spec)
- PHL 518 - Professional Ethics 3(3-0)
- PSY 531 - Group Dynamics 3(3-0)
- PSY 535 - Organizational Psychology 3(3-0)

Note: Students may not count both ECO 515 and MGT 646 or both MSA 620 and PSY 535 on a certificate or degree program.

Total: 15 semester hours

Note: when appropriate, other courses may be substituted with the approval of the MSA Director.
Long-Term Care Administration Certificate

Note: CMU is not currently accepting students into this program.

Minimum Totals for Graduation: 18 hours

Required Courses (18 hours)
- GRN 632 - Public Policy and Aging 3(3-0)
- HSC 520 - Health Services Administration 3(3-0)
- HSC 570 - Financial Aspects of Health Services Organizations 3(3-0)
- HSC 591 - Legal & Regulatory Aspects of Long-Term Care 3(3-0)
- HSC 592 - Administration Issues in Long-Term Care 3(3-0)
- HSC 593 - Resident Care Issues in Long-Term Care Administration 3(3-0)

Note: Students who have taken HSC 520 and/or HSC 570 as part of another concentration may select substitutes from the following courses: GRN 631, HSC 506, HSC 507, HSC 545, HSC 572, or HSC 581.

Total: 18 semester hours

Organizational Communication Certificate

Minimum Totals for Graduation: 15 hours

Required Courses (15 hours)
- COM 560 - Communication and Social/Organizational Change 3(3-0)
- COM 561 - Communication in Conflict Management 3(3-0)
- COM 565 - Communication Training in Organizations 3(3-0)
- COM 664 - Seminar in Organizational Communication 3(3-0)
- COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)

Total: 15 semester hours

Public Administration Certificate

Minimum Totals for Graduation: 15 hours

Required Courses (15 hours)
- ECO 515 - Collective Bargaining and Labor Law 3(3-0)
- COM 665 - Seminar in Communication and Negotiation in Employee Relations 3(3-0)
- MGT 646 - Labor Relations Issues 3(3-0)
- PSC 514 - American Public Policy Making 3(3-0)
- PSC 522 - Regulatory Processes and Administrative Law 3(3-0)
- PSC 561 - American State Government and Administration 3(3-0)
- PSC 563 - Politics and Policy in Urban Communities 3(3-0)
- PSC 565 - Managing Modern Local Government 3(3-0)
- PSC 566 - Intergovernmental Relations in the United States 3(3-0)
- PSC 610 - Foundations of Public Administration 3(3-0)
- PSC 711 - Public Personnel Administration Practice 3(3-0)
- PSC 713 - Public Budgeting and Finance 3(3-0)
- PSC 714 - Program Analysis and Evaluation 3(3-0)
- PSC 774 - Strategic Planning for Public/Non-Profit Organizations 3(3-0)
- PSC 775 - Organization Theory in Public Administration 3(3-0)
- PSC 785 - Strategic Leadership 3(3-0)

Note: Only one of the following may be used to fulfill certificate requirements: ECO 515, COM 665, or MGT 646.

Note: Students may not count both PSC 775 and MSA 650 on a certificate or degree program.

Total: 15 semester hours

Software Engineering Administration Certificate

Note: CMU is not presently accepting students into this program.

Minimum Totals for Graduation: 18 hours

Required Courses (18 hours)
- CPS 510 - Software Systems Engineering 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)

Total: 18 semester hours

Vehicle Design and Manufacturing Administration Certificate

Note: CMU is not presently accepting on-campus students into this program.

Minimum Totals for Graduation: 18 hours

Required Courses (18 hours)
- IET 500 - Production Concepts 3(3-0)
- IET 501 - Application of Industrial Management Principles 3(3-0)
- IET 524 - Technology and Environment 3(3-0)
- IET 527 - Industrial Safety Management 3(3-0)
- MGT 542 - Inventory and Materials Management 3(3-0)
- MGT 543 - Management and Control of Quality 3(3-0)

Total: 18 semester hours
Course Descriptions: MSA

MSA 501 Managing Change with Emotional Intelligence 3(3-0)
An examination of organizational leadership utilizing emotional intelligence as a foundation for managing change. This course is approved for offering in a distance learning format. Prerequisites: LDR 200 and 86 semester hours completed; or graduate standing.

MSA 600 Foundations of Research Methods in Administration 3(3-0)
An introduction to research methods designed to build the skills and knowledge necessary to conduct and interpret primary research in the field of administration. This course is approved for offering in a distance learning format. Prerequisite: Statistics competency.

MSA 601 Organizational Dynamics and Human Behavior 3(3-0)
An examination and application of organizational theories aimed at developing a conceptual framework for the understanding and analysis of human behavior in complex organizations. This course is approved for offering in a distance learning format.

MSA 602 Financial Analysis, Planning and Control 3(3-0)
Study of financial analysis, planning, and control techniques/methods emphasizing mechanisms used to determine the overall financial health of private, public and non-profit organizations. This course is approved for offering in a distance learning format. Prerequisites: Accounting competency.

MSA 603 Strategic Planning for the Administrator 3(3-0)
An examination of processes and approaches used by administrators to analyze internal and external environments to establish and accomplish long-term strategic organizational goals. This course is approved for offering in a distance learning format.

MSA 604 Administration, Globalization and Multiculturalism 3(3-0)
Focuses on theoretical and applied concepts and skills essential to successfully managing an environment of workplace diversity and multiculturalism within domestic and global organizations. This course is approved for offering in a distance learning format.

MSA 605 Environments in Administration 3(3-0)
Studies the impact of the economic, legal, political, technical, international, and social environments on administration. Presents the relevant concepts from these areas and analyzes their interrelationships. This course is approved for offering in a distance learning format.

MSA 619 Continuing Registration for Final Research Project 1(1-0)
A non-credit course intended for students who have completed all program credits but still need to use university resources to complete their degree requirements.

MSA 620 Effective Administration and Organizational Behavior 3(3-0)
To develop an understanding of human problems and processes which help or hinder successful task completion. To improve interpersonal and diagnostic skills as well as theoretical knowledge. This course is approved for offering in a distance learning format.

MSA 634 Managerial Accounting Concepts 3(3-0)
Study of how accounting information can be used in planning, coordinating, and controlling the activities of an organization. Prerequisite: Accounting competency. This course is approved for offering in a distance learning format.

MSA 635 Financial Management 3(3-0)
Study of financial management and financial management techniques for administrators of private and public organizations. Emphasis is on financial planning and control. Prerequisite: Accounting competency. This course is approved for offering in a distance learning format.

MSA 640 Quantitative Applications in Decision Making 3(3-0)
This course studies stochastic and quantitative analytical tools and concepts which can be used to make optimal decisions in the pursuit of such organizational goals as cost efficiency, service delivery, and profit. Concepts include probability theory, statistics, decision theory, inventory control, linear models, linear programming, network analysis, and simulation. Prerequisite: Statistics competency. This course is approved for offering in a distance learning format.

MSA 650 Organization Theory: Strategy and Structure 3(3-0)
A systems approach to studying the design and administration of complex organizations. Diverse organizational settings require the capacity to develop appropriate decision making and planning strategies to produce the desired organizational goals, given the organization’s environment. This course is approved for offering in a distance learning format.

MSA 660 Marketing Administration 3(3-0)
This course is concerned with the application of appropriate marketing concepts and techniques to the private sector business and nonprofit organizations’ marketing and communication activities. This course is approved for offering in a distance learning format.

MSA 661 Diversity and Multiculturalism in the Workplace 3(3-0)
An examination of the skills needed to successfully administer an environment that facilitates workplace diversity and multiculturalism within the contexts of domestic and global organizations.

MSA 675 Strategic Policy Administration 3(3-0)
Applies decision-making models for policy analysis and implementation in the private and public sector environments. A case study course covering organizational analysis and operational programming. Prerequisite: Minimum of 9 semester credit hours of MSA core courses, including MSA 634 or MSA 635. This course is approved for offering in a distance learning format.

MSA 681 Administrative Practicum 1-3(Spec)
Provide students with an introductory professional experience of an administrative/supervisory nature in an administrative setting. For students with limited or no administrative experience. Prerequisite: Permission of MSA Director.
MSA 685 Integrative Analysis of Administration 3(Spec)
MSA 685 builds upon the information and skills learned in the core and concentration course work, and the student’s employment experiences. The course trains the student in application of administrative theory and research to practical issues and problems found in occupational situations. In these senses of joining theory, research and practice with the practical workday world, the course is truly integrative of the student’s knowledge, skills, and professional life. Prerequisites: MSA 600, MSA 634 or MSA 635, MSA 640 all with a grade of C or better; 21 hours of graduate credit. This course is approved for offering in a distance learning format.

MSA 690 Internship 1-3(Spec)
Provides a supervised, practical, in-depth administrative experience in an organization related to the MSA student’s concentration area. Prerequisites: 18 hours completed in the MSA program and permission of the MSA Director.

MSA 691 Independent Study 1-2(Spec)
Directed reading or research on an approved topic in administration. Prerequisite: permission of instructor and director of MSA program.

MSA 696 Special Topics 3(Spec)
Selected topics of interest to students which are not included in existing courses. Specific topic will be listed on the student’s transcript.

MSA 699 Applied Research Project in Administration 3(Spec)
Research project on a practical organizational administrative issue and/or problem integrating theoretical, methodological, and applied knowledge from core and concentration coursework with student’s professional experience. This course is approved for offering in a distance learning format. Prerequisites: 24 total hours completed in the MSA program: grades of C or better in MSA 600, 602, and 603.
Neuroscience

Michael Sandstrom, Co-Director
Health Professions Bldg. 2179; 989-774-2881

Jonathan Kelly, Co-Director
Brooks 230A; 989-774-1382

Richard W. Backs, Ph.D., University of Southern California. Human factors, psychophysiology, aging, attention, and emotion.

Gary Dunbar, Ph.D., Clark University. Stem cell, dietary supplements, and pharmacological therapies for neurodegenerative diseases, including Huntington’s, Alzheimer’s, and Parkinson’s diseases.

Jonathan Kelty, Ph.D., Miami University. Neurobiology, neural control of respiration, environmental physiology.

Justin Oh-Lee, Ph.D., University of California Los Angeles. Behavioral neuroscience, neuropharmacology, and molecular genetics in neurodegenerative diseases such as Parkinson’s and Alzheimer’s.

Mark Reilly, Ph.D., West Virginia University. Experimental analysis of behavior, operant/respondent conditioning, animal learning, quantitative models, behavioral pharmacology, and substance abuse.

Michael Sandstrom, Ph.D., Ohio State University. Assessing brain plasticity, compensatory neuronal activity, or neurochemical control during active behavior at various stages of deteriorative brain diseases such as Parkinson’s and Huntington’s using animal models.

Reid Skeel, Ph.D., University of Florida, Neuropsychology.

Michelle Steinhilb, Ph.D., genetic models of human neurodegenerative disease, cellular and molecular neurobiology

Ksenia Ustinova, Ph.D, Russian State University of Sport. Motor control and learning, rehabilitation of patients with neurological diseases including stroke, spinocerebellar ataxia, Parkinson’s disease.

Master of Science (M.S.) in Neuroscience

Minimum Totals for Graduation: 30 hours

The Masters of Science (M.S.) in Neuroscience Program at Central Michigan University is designed to give each student a comprehensive understanding of the core principles in neuroscience and the requisite training that will prepare students for further, doctoral-level graduate training or for positions in academics, industry, or government that utilize highly trained research skills in specific areas of neuroscience. Throughout the program, all students are expected to be actively involved in research with a Program faculty member, who serves as a mentor. The focus of the M.S. Program in Neuroscience is to build a broad-based and comprehensive understanding of the basic principles of neuroscience and develop a strong background for applied research in some specific area of neuroscience. Current areas of specific research training include CNS control of respiration and studying the causes and potential treatments for Alzheimer’s, Huntington’s, and Parkinson’s diseases. Students are encouraged to contact Program faculty members in their area of research interest prior to submitting application materials.

Admission Requirements, Retention & Termination Standards

Application Deadline for all Materials: March 1

The application deadline for receipt of all materials will be March 1. When applying for the M.S. degree in Neuroscience, applicants must send three letters of reference, official transcripts, and official GRE scores directly to the Program Director. Applicants are expected to complete a Bachelor of Science degree, have at least 15 hours of courses in neuroscience, chemistry, and/or biology (including biologically-based psychology courses), have at least 3 hours of statistics, and have a 3.0 grade point average (on a 4.0 scale) to gain admittance to the program. Preference will be given to students with prior research experience, especially in the area of neuroscience. Students who are deficient in certain subject areas, such as statistics or chemistry, will be expected to make up these deficiencies in addition to the normally prescribed graduate coursework for the degree. A minimum of 9 credit hours earned during non-degree status may be applied toward the M.S. degree in Neuroscience.

The M.S. degree in Neuroscience is based upon the satisfactory completion of a minimum of 30 semester hours of graduate work, including the successful completion of the Principles of Neuroscience courses and successful completion of a thesis (with oral defense). Students who are unable to pass the comprehensive examination for the Principles of Neuroscience courses after three attempts will be dismissed from the program. Students who complete the required coursework and successfully defend their thesis will attain the Master of Science in Neuroscience degree. All other retention and termination standards for the program follow University policy as specified in the Graduate Bulletin.

Degree Requirements

Required Courses I (18 hours)

- NSC 601 - Principles of Neuroscience I 4(4-0)
- NSC 602 - Principles of Neuroscience II 4(4-0)
- NSC 690 - Research Seminar in Neuroscience 1-4(Spec)
- NSC 798 - Thesis: Design 1-3(Spec)
- NSC 799 - Thesis: Implementation 1-3(Spec)

Note: A minimum of 4 hours of NSC 690 and 6 hours from a combination of NSC 798 and NSC 799 is required.

Required Courses II (3 hours)

Select one of the following:
- BIO 500 - Biological Statistics 3(2-2)
- PSY 511 - Statistics in Psychology 3(3-1)

Required Courses III (3 hours)

Select one of the following:
- BIO 600 - Biological Research Design and Analysis 3(3-0)
- PSY 611 - Research Design 3(3-0)

Electives (6 hours)

To be chosen in consultation with an advisor.

Note: Students need a minimum of 2 credit hours from elective courses at the 600 level.

Total: 30 semester hours
Doctor of Philosophy (Ph.D.) in Neuroscience

Minimum Totals for Graduation: 90 hours

The Doctor of Philosophy (Ph.D.) in Neuroscience Program at Central Michigan University is designed to give each student a comprehensive understanding of the core principles in neuroscience and the requisite training that will prepare students for positions in academics, industry, or government that utilize highly trained research skills in specific areas of neuroscience. The foundation of the Program is provided during the first two years, which encompasses all the requirements for the Master of Science (M.S.) degree in Neuroscience. Throughout the program, all students are expected to be actively involved in research with a Program faculty member, who serves as a mentor. Upon receiving the M.S. degree in Neuroscience (or its equivalent, for students who enter the Ph.D. Program after their second year), students will work closely with their mentor to establish a line of research that will lead to a publishable-quality major paper and dissertation. As such, the focus of the Ph.D. Program in Neuroscience is to build upon the student’s broad-based and comprehensive understanding of the basic principles of neuroscience and develop a strong background for applied research in some specific area of neuroscience. Current areas of specific research training include CNS control of respiration and studying the causes and potential treatments for Alzheimer’s, Huntington’s, and Parkinson’s diseases. Students are encouraged to contact Program faculty members in their area of research interest prior to submitting application materials.

Admission Requirements, Retention & Termination Standards

Application Deadline for all Materials: March 1

The application deadline for receipt of all materials will be March 1. When applying for the Ph.D. degree in Neuroscience, applicants must send three letters of reference, official transcripts, and official GRE scores directly to the Program Director. Applicants are expected to complete a Bachelor of Science degree, have at least 15 hours of courses in neuroscience, chemistry, and/or biology (including biologically-based psychology courses), have at least 3 hours of statistics, and have a 3.0 grade point average (on a 4.0 scale) to gain admittance to the program. Preference will be given to students with prior research experience, especially in the area of neuroscience. Students who are deficient in certain subject areas, such as statistics or chemistry, will be expected to make up these deficiencies in addition to the normally prescribed graduate coursework for the degree. A maximum of 9 credit hours earned during non-degree status may be applied toward the M.S. or Ph.D. degree in Neuroscience.

The Doctor of Philosophy degree in Neuroscience is based upon the satisfactory completion of a minimum of 90 semester hours of graduate work, including the successful completion of the Principles of Neuroscience courses and successful completion of a thesis (with oral defense). Students who are unable to pass the comprehensive examination for the Principles of Neuroscience courses after three attempts will be dismissed from the program. Students who complete the required coursework for the first two years and successfully defend their thesis will attain the Master of Science in Neuroscience degree. Thus, each Ph.D. student must complete the equivalent of all the requirements for the M.S. degree in Neuroscience. Upon completion of the requirements for the M.S. degree in Neuroscience, students will be required to complete NSC 800 (a major paper with oral defense) for their qualifying exam. Upon satisfactory completion of their qualifying exam, the student is an official Ph.D. candidate in the Program.

Students who do not successfully defend their major paper by the third attempt will be dismissed from the Program. Upon completion of the remaining course requirements and following the successful oral defense of the dissertation, the student will receive the Ph.D. in Neuroscience degree. All other retention and termination standards for the program follow University policy as specified in the Graduate Bulletin.

Program Requirements

Admission to doctoral candidacy is based upon satisfactory grades (i.e., maintaining a minimum 3.0 grade point average), completion of thesis requirements, and Completion of both semesters of the Principles of Neuroscience (NSC 601 and NSC 602) or passing the comprehensive examination for these courses, and successfully completing NSC 800. The doctoral degree is awarded upon the successful completion and defense of the doctoral dissertation.

Required Courses (48-66 hours)

NSC 601 - Principles of Neuroscience I 4(4-0)
NSC 602 - Principles of Neuroscience II 4(4-0)
NSC 690 - Research Seminar in Neuroscience 1-4(Spec)
NSC 789 - Graduate Seminar in Neuroscience 1-12(Spec)
NSC 798 - Thesis: Design 1-3(Spec)
NSC 799 - Thesis: Implementation 1-3(Spec)
NSC 800 - Neuroscience Research for Doctoral Candidacy 1-12(Spec)
NSC 898 - Doctoral Dissertation: Design 1-12(Spec)
NSC 899 - Doctoral Dissertation: Implementation 1-12(Spec)

Note: A minimum of 4 hours of NSC 690, 6 hours of NSC 789, 6 hours from a combination of NSC 798 and NSC 799, 6 hours of NSC 800, and 18 credit hours from the combination of NSC 898 and NSC 899 is required. In addition to course work, a student must complete an oral examination over the thesis, major paper (NSC 800), and the dissertation.

Required Courses II (3 hours)

Select one of the following:
BIO 500 - Biological Statistics 3(2-2)
PSY 511 - Statistics in Psychology 3(3-1)

Required Courses III (3 hours)

Select one of the following:
BIO 600 - Biological Research Design and Analysis 3(3-0)
PSY 611 - Research Design 3(3-0)

Electives (18-36 hours)

To be chosen in consultation with an advisor.

Total: 90 semester hours

Course Descriptions: NSC

NSC 600 Special Issues in Neuroscience 1-12(Spec)
Subjects of contemporary neuroscience not covered by regular curriculum. May be repeated to a maximum of twelve hours. Prerequisites: Permission of instructor.

NSC 601 Principles of Neuroscience I 4(4-0)
First of two core neuroscience graduate courses providing comprehensive coverage of neuroscience fundamentals. Prerequisites: none.

NSC 602 Principles of Neuroscience II 4(4-0)
Second of two core neuroscience graduate courses providing comprehensive coverage of neuroscience fundamentals. Prerequisites: NSC 601.
NSC 690 Research Seminar Neuroscience 1-4(Spec)
Seminar emphasizing review of the primary literature in several areas of neuroscience. May be repeated for a maximum of four credits. Prerequisites: Graduate standing in the Neuroscience Program.

NSC 696 Directed Research 1-12(Spec)
For students who desire to investigate some research problem in neuroscience. Prerequisites: Graduate standing.

NSC 697 Independent Study 1-8(Spec)
For students who accept the responsibility of studying a specific area of neuroscience with minimal supervision. Prerequisites: Graduate standing.

NSC 789 Graduate Seminar in Neuroscience 1-12(Spec)
In-depth exploration of a specific area in neuroscience through the review of the primary literature. May be repeated up to a maximum of 12 hours. Prerequisites: Permission of instructor.

NSC 798 Thesis: Design 1-3(Spec)
Design of a Master’s thesis. CR/NC only. Prerequisites: Graduate standing in the Neuroscience Program.

NSC 799 Thesis: Implementation 1-3(Spec)
Completion of a Master’s thesis designed in NSC 798. CR/NC only. Prerequisites: NSC 798.

NSC 800 Neuroscience Research for Doctoral Candidacy 1-12(Spec)
Major research course in which students work in close collaboration with instructor in preparing significant research project in a specific area of neuroscience. Prerequisites: NSC 799 and permission of instructor.

NSC 898 Doctoral Dissertation: Design 1-12(Spec)
Design of a doctoral dissertation. CR/NC only. Prerequisites: NSC 800.

NSC 899 Doctoral Dissertation: Implementation 1-12(Spec)
Completion of the doctoral dissertation designed in NSC 898: data collection, analysis, and write-up. CR/NC only. Prerequisites: Completion of NSC 898.

Doctor of Philosophy (Ph.D.) in the Science of Advanced Materials
Koblar A. Jackson
218 Dow Science Complex, 989-774-3310

Minimum Totals for Graduation: 90 hours

The science of materials combines elements of chemistry, physics, and biology, and requires a solid background in mathematics. The CMU Science of Advanced Materials (SAM) Ph.D. program is designed to create a correspondingly interdisciplinary environment that will train effective researchers without erecting artificial boundaries between disciplines. The formal coursework focuses on the scientific framework for studying materials and is organized around the themes of modeling, characterization, and synthesis. These are the key methodologies employed in materials research and the SAM program emphasizes the synergy among them.

The curriculum for the SAM program includes the following components: core courses that establish a solid foundation in the science of materials; advanced courses in a number of specialized areas; seminar courses focusing on the current SAM literature and developing essential skills in scientific communication; and the dissertation.

Students may enter the program with diverse undergraduate backgrounds. To accommodate varied levels of preparation and establish a basis for interdisciplinary training, foundation courses in the chemistry and physics of materials are required. A course in chemical principles (SAM 620) is aimed at students with a strong undergraduate background in physics, while students with a strong background in chemistry or biochemistry may opt to take both courses to insure the proper foundation for more advanced study, while students with a strong background in both physics and chemistry may not need either course. An initial interview with the program director or a faculty advisor will determine placement in these courses.

Students in the SAM program may apply for support as teaching or research assistants. Students will normally work as teaching assistants during their first two years and as research assistants during the final three years of the program.

Admission Requirements, Retention & Termination Standards

Students with a bachelor’s degree in physics, chemistry, biochemistry, biology, geology, engineering, mathematics or other relevant areas of science will be considered for admission. Applicants must be admitted to the CMU College of Graduate Studies and the SAM program. Transcripts of previous undergraduate and graduate studies, GRE scores, a statement of research interests and letters of recommendation will be used in evaluating candidates for admission.

Applicants already holding an M.S. degree in a materials-related area may also apply for entry into the program. Relevant graduate coursework taken previously may be counted toward meeting some of the program requirements. A completed M.S. thesis on a materials-related topic will be counted toward the directed research credits required on the SAM Ph.D.

At the end of the first year all students will complete a qualifying examination covering the material contained in the core courses. Students passing this exam will be granted candidacy status and will continue toward the Ph.D. degree. Those who do not pass will have a second opportunity to take the exam early in the second year. Those who fail a second time will be terminated from the program and encouraged to complete the requirements for
an appropriate M.S. degree. These programs generally include some additional courses not required in the SAM program. Most students will be able to complete such courses and the M.S. research thesis requirement in one additional year.

During the second year, Ph.D. students will take a series of cumulative examinations to demonstrate competence in their area of specialization. These exams will be based on coursework, the current scientific literature in the area, and other appropriate material. Students passing these exams will attain dissertation status. Those who fail a portion of the cumulative exams will have a second opportunity to pass that portion. Students who fail a second time will be terminated from the program and encouraged to complete the requirements for an appropriate M.S. degree.

Students normally will be expected to begin directed research work no later than during the first summer of residence. Students will identify a research advisor as early as possible, and form a dissertation committee consisting of at least four members. The committee chair (research director) and two other members will come from the program faculty. One of these will have research expertise outside the student’s immediate area of specialization. At least one additional committee member will come from an institution external to CMU, including industrial labs, as appropriate.

During the third year, students will prepare an original research proposal, present it as a seminar to program faculty and students and defend it before the dissertation committee. Students will carry out the bulk of their doctoral research in years 3–5 of the program. The final requirements will be the preparation and oral defense of a scholarly dissertation that presents the results of the student’s dissertation research. The oral defense and the dissertation must be approved by the dissertation committee and by the College of Graduate Studies. A student’s progress through the program will be monitored by an annual review of his or her overall performance by the program director or dissertation committee.

**Required Courses**

**Required Courses I (3 hours)**

*Science Core*

Select one course from the following, after consultation with the program advisor:

- SAM 620 - Chemical Principles in the Science of Materials 3(3-0)
- SAM 630 - Physical Principles in the Science of Materials 3(3-0)

**Required Courses II (9 hours)**

*Materials Core*

- SAM 700 - Advanced Materials I: Inorganic and Nanomaterials 3(3-0)
- SAM 710 - Advanced Materials II: Polymers, Composites and Biomaterials 3(3-0)
- SAM 720 - Materials Characterization and Modeling Lab 3(1-6)

**Required Courses III (12 hours)**

*Specialization*

The student must enroll in 12 credit hours of graduate courses in one specialized area of materials such as computational materials modeling, polymeric materials, or materials characterization, selected in consultation with and approved by program advisor.

**Required Courses IV (6-10 hours)**

*Current Topics Seminar*

- SAM 785 - Seminar: Current Topics in the Science of Advanced Materials 1-10(Spec)

**Note:** The student may enroll multiple times until 6 to 10 credits are earned.

**Electives (0-12 hours)**

The student may enroll in up to 12 credit hours of elective graduate courses selected in consultation with and approved by the program advisor.

**Research (32-48 hours)**

- SAM 796 - Directed Research in the Science of Advanced Materials 1-48(Spec)
- SAM 789 - Dissertation 1-12(Spec)

**Total: 90 semester hours**

**Course Descriptions: SAM**

**SAM 620 Chemical Principles in the Science of Materials 3(3-0)**

Principles of inorganic and organic chemistry relevant to the study of materials. Theories of bonding; important synthesis reactions; standard methods of structure determination; chemical properties. Prerequisites: CHM 131 and 132, or CHM 161.

**SAM 630 Physical Principles in the Science of Materials 3(3-0)**


**SAM 690 Special Topics in Science of Advanced Materials 1-9(Spec)**

Special topics not included in regular courses in the Science of Advanced Materials program. Course may be taken for credit more than once; total credit not to exceed nine hours. Prerequisites: Admission to SAM program.

**SAM 700 Advanced Materials I: Inorganic and Nanomaterials 3(3-0)**

This course will provide a detailed survey of metals, semiconductors, ceramics, and nanomaterials, with a special emphasis on structure-property relationships. Prerequisites: SAM 620 or SAM 630.

**SAM 710 Advanced Materials II: Polymers, Composites and Biomaterials 3(3-0)**

Structure, properties, characterization, and synthesis of polymeric materials, biomaterials and derived compositions. Prerequisites: SAM 620 or SAM 630.

**SAM 720 Materials Characterization and Modeling Lab 3(1-6)**

Experimental (diffraction, spectroscopy, microscopy and others) and modeling (quantum mechanics, molecular dynamics, Monte Carlo and others) techniques in materials characterization. Prerequisites: SAM 620 or 630. Co-requisites: SAM 700 or 710.

**SAM 785 Seminar: Current Topics in the Science of Advanced Materials 1-10(Spec)**

One credit graduate seminar focusing on recent advances in the science of advanced materials. May be repeated for a total of up to 10 credits. Prerequisites: Admission to the SAM Ph.D. program.

**SAM 796 Directed Research in the Science of Advanced Materials 1-48(Spec)**

Directed research supervised by a SAM faculty member. May be repeated for a total of 48 credits. Prerequisites: Admission to the SAM program.

**SAM 899 Dissertation 1-12(Spec)**

Completion of the doctoral dissertation. May be repeated for a total of 12 credits. CR/NC only. Prerequisites: Admission to the SAM Ph.D. program; successful completion of preliminary exams.
General Non-Departmental Courses

These courses are designed to enable students and faculty members to explore areas of special interest and need. In general, each course will be interdisciplinary in nature and under the direction of more than one faculty member. It may utilize such approaches as discussions, readings from basic sources, field trips, workshops, oral and written reports, and invited lectures. Students may be exposed to new areas of knowledge, explore contrasting points of view, or refine basic understandings of value to their development as effective citizens.

At the discretion of his or her advisor, a graduate student may use one or more of these courses to meet cognate or elective requirements on the curriculum. Prerequisite for admission to each of the foregoing courses is permission of the instructor.

ENV 597  Special Topics 1-6(Spec)

HPS 582  Special Topics 1-3(Spec)

Exploration of special topics in the field of Athletic Training/Sports Medicine and other health related areas. May be repeated to a maximum of 3 hours. Identical to ATR 582. Credit may not be earned in more than one of these courses. This course is approved for offering in a distance learning format. Prerequisites: ATR 430 and permission of instructor.

IPR 555  Public Relations Internship 3-6(Spec)

Directed full-time work experience in a professional public relations environment. Prerequisites: IPR 101; BCA 210, BCA 311; COM 264, COM 357; JRN 202, JRN 302, JRN 350, JRN 450; completion of 56 credit hours; prior written approval of the designated internship director; open only to signed Integrative Public Relations majors.

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.

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.

LAR 597  Special Studies in Liberal Arts 1-12(Spec)

Primarily for graduate students. Prerequisite: permission of instructor.

MST 546  Introduction to Museum Work 3(3-0)

Exploration of the duties and responsibilities encountered in museum work. Collection care and development, exhibit preparation, and educational program development. Prerequisite: 56 hours of course credit.

MST 547  Museum Science Laboratory 3(0-6)

Experimentation with materials and techniques utilized within the museum profession. Primary emphasis is on exhibit preparation, model-building, and replica-making for educational usage. Prerequisites: MST 546; 56 semester hours of credit.

MST 550  Museum Collections Management and Care 3(3-0)

Curatorial techniques in museums including acquisition, cataloging, legal requirements, preservation, computerization and proper handling. Prerequisites: MST 546; 56 hours of course credit.

MST 551  Museum Education and Interpretation Techniques 3(3-0)

Interpretive methods used by museums including development and implementation of programs and enhancement of interpretive skills. Prerequisites: MST 546; 56 hours of course credit.

MST 598  Museum Internship 6(Spec)

Supervised practical experience in the operation of museum facilities and programs. Designed to apply a variety of classroom concepts and skills within a supervised organizational setting. Prerequisites: MST 546, MST 550, MST 551; must be a graduate student or have declared an undergraduate minor in Museum Studies.

SCI 597  Special Studies in Science 1-12(Spec)

Primarily for graduate students. Prerequisite: permission of instructor.

SSC 597  Special Studies in Social Science 1-12(Spec)

Primarily for graduate students. Prerequisite: permission of instructor.

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.
Standards Leading to Teacher Certification

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

Excellent teachers demonstrate an interest in students, an ability to relate to and communicate with diverse students in varied ways, as well as the ability to motivate and facilitate learning. Teacher candidates at CMU must be learner-centered and able to communicate both in writing and in face-to-face interactions with spontaneity and clarity. In addition, students must demonstrate the professional dispositions appropriate to the field of teaching in order to be recommended for certification. Such dispositions include values, commitments, and professional ethics that influence behaviors toward students, families, colleagues, and all members of the learning community and affect student learning, motivation, and development as well as the educator’s own professional growth and development (NCATE). As an NCATE accredited institution, only qualified candidates will be recommended for certification.

The Three Cycles of Candidacy
There are three cycles for teacher education candidates to complete in order to fulfill the requirements leading to teacher certification. Students must follow the requirements in the Teacher Education Student Handbook and the requirements of the Michigan Board of Education in effect at the time they complete the application process.

Cycle I: Admission Candidacy
Each student who expects to earn either an Elementary Provisional Certificate or a Secondary Provisional Certificate must file an application for admission into teacher education. Application forms and related information can be found in the Teacher Education Student Handbook and on the Center for Student Services website at www.ehs.cmich.edu/css. Cycle I is a two-part process, acceptance for candidacy status and admission to the teacher education program. Upon completion of all requirements for Cycle I, the student will be placed on a list that is ranked in order by composite scores. Admission to teacher education will occur twice a year, once in September and once in February, and will be based upon the student’s composite score. When enrollment has to be limited in teacher education, rank order scores will be used to determine admission to the program. Therefore, students who have met all requirements for admission may not be admitted if their composite scores are not sufficiently high to be above the cutoff score.

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

Cycle II: Continuing Candidacy
This point in the teacher education program has been established as a method to verify candidates’ ongoing growth and development in the teacher education program. By fulfilling all competencies listed in the EHS Teacher Education Student Handbook and Student Teaching Handbook, candidates are eligible to continue in the program and move to their student teaching experiences. Cycle II includes, but is not limited to items such as departmental approval of all majors and minors, successful completion of all professional education courses, registration with CMU Career Services, successful completion of an interview with EDU 458 faculty, and completion of a specified mid-tier experience. For specific requirements, consult the EHS Teacher Education Student Handbook and the EHS Student Teaching Handbook.

Cycle III: Exit Candidacy
This point in the teacher education program is intended as a verification of eligibility related to graduation and certification. The Cycle III interview normally takes place during the student teaching semester. For specific requirements and details about Cycle III, consult the EHS Teacher Education Student Handbook.

Conflict Resolution and Appeal Procedure

1. A student who has a complaint regarding teacher certification decisions should make known his or her complaint as soon as possible, but in no case later than sixty days after the beginning of the next regular semester. Any exception to the time limitation shall be for unusual and most compelling reasons. At each step of the process, the student will be given the opportunity to present relevant information, and the reasons for the decision will be explained to the student.

2. A student who feels that arbitrary and/or capricious decisions have been made in evaluating admission, or continuing requirements for the teacher education program, or in the recommendation for certification, should seek counsel and advice from his or her professional advisor. The advisor will attempt to resolve the conflict.

3. If the student is not still satisfied, he or she may request in writing a consultation with the Director of Professional Education. In the absence of the Director of Professional Education, the student’s request in writing should be sent to the Dean of the College of Education and Human Services. In such cases, the Dean shall act in place of the Director.

4. If the student is not satisfied with the decision of the Director of Professional Education, the student may submit an appeal in writing to the Professional Education Selection, Admission and Retention Committee. The Professional Education Selection, Admission and Retention Committee has the authority to overrule decisions made by the Director of Professional Education regarding admission or continuing requirements for the teacher education program or in the recommendation for certification. Appeal decisions made by the Professional Education Selection, Admission and Retention Committee are final.
Teacher Certification

Policy Regarding Teacher Certification and/or Endorsement for Postbaccalaureate Students

A postbaccalaureate student is defined as a student with a non-teaching bachelor’s degree from a four-year regionally accredited institution who is seeking teacher certification, a student with a teaching degree who is seeking teacher certification and/or endorsement in an additional area, or a student with a teaching degree who is seeking provisional or professional certification and/or endorsement in an additional area.

1. Postbaccalaureate students must follow the “Standards Leading to Teacher Certification” as published in the Bulletin and meet Michigan Department of Education requirements listed in the Teacher Education Student Handbook.

2. Postbaccalaureate students must have majors and/or minors signed by a departmental advisor in the department offering the major or minor. Course substitutions may be approved only by the departmental advisor.

3. Postbaccalaureate students must complete all Professional Education courses and other degree/certification requirements for either elementary or secondary students as published in the Bulletin.

4. The Teacher Education and Professional Development Department (TEPD) will submit a list of the names of all students applying for student teaching the following semester to each student’s major and minor department for approval or denial.

5. The EHS Center for Student Services will audit the signed major and minor of all students to certify that they have met all the requirements before recommending them for certification.

6. Certification will be recommended for those teaching areas in which CMU presently offers a major or minor.

Validity of Provisional Certificate

A current Elementary Provisional Certificate is valid for teaching all subjects in grades kindergarten through five, and major and minor fields in grades six through eight (upon completion of the required subject area tests) as specified on the certificate and kindergarten through eight in a self-contained classroom. It is valid for six years and may be renewed for three years, provided the applicant presents nine semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate. A second three-year renewal may be granted provided the applicant presents 18 semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate.

A current Secondary Provisional Certificate is valid in subject matter fields in grades six through twelve in which the applicant has completed a major(s) or minor(s) as specified on the certificate. It is valid for six years and may be renewed for three years provided that the applicant presents nine semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate. A second three-year renewal may be granted provided the applicant presents 18 semester hours of credit in a planned program as approved by the university when earned after the issuance of the initial certificate.

Requirements for Professional Education Certification

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

1. Has submitted the appropriate application.

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

3. Has presented evidence that he or she has completed 18 semester hours in a planned course of study beyond the issuance date of the initial certificate. This advanced course of study must be applicable to the applicant’s professional development and signed with an advisor. A copy of this program must be on file in the EHS Center for Student Services.

4. Elementary applicants for the Professional Education Certificate must have completed 6 semester hours in the methods of teaching reading, and secondary applicants must have completed 3 semester hours in the methods of teaching reading. (If the required reading credit was completed prior to receiving the Provisional Certificate, it need not be repeated within the required credit for the Professional Education Certificate.)

Procedures for Professional Education Certification

The Candidate Shall:

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

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

B. A candidate who is not pursuing a graduate degree or who has initially been granted non-degree status in graduate school, or who is pursuing undergraduate study must obtain approval for a “planned course of study” beyond the bachelor’s degree from an advisor in the appropriate department by contacting the EHS Center for Student Services. The student is expected to have a signed program on file before registering for his or her first coursework at Central Michigan University.

2. Obtain an application for a Professional Education Certificate from the EHS Center for Student Services, 204 Ronan Hall, when the last of the requirements are in progress.

3. Fill out the application and return it to the EHS Center for Student Services.

4. Return a copy of the provisional certificate.

5. Send official transcripts directly to the EHS Center for Student Services for any of the 18 hours of credit not earned at Central Michigan University, including an official transcript of the reading requirement when appropriate.

The University Will:

1. Evaluate the qualifications of the candidate to determine whether he or she satisfies requirements for a Professional Education Certificate.

2. Obtain a statement from an appropriate school official verifying the candidate has three years of successful teaching experience within the validity and grade level of the provisional teaching certificate.

3. Recommend the candidate to the State Department of Education for a Professional Education Certificate if his or her qualifications are found satisfactory.

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

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

2. For persons who do not complete the requirements of subrule (1) of this rule, the certificate expires on June 30 of the year of the certificate’s expiration.

3. To reinstate an expired Professional Education Certificate, a person shall apply to the State Board for a reinstatement and shall present evidence of the completion of the 6 semester hours, or their equivalent, in approved professional development programs or approved professional activities specified in subrule (1) of this rule.

4. Credit completed out of state shall be in an approved teacher education institution and approved by the Michigan State Board of Education prior to enrolling in a course.

Certificate Fee

Public Act 339 of 1988 requires candidates for a teaching certificate or school psychologist certificate to sign a certification agreement and to pay a fee within 30 days when billed by the Michigan Department of Education.
Code of Student Rights, Responsibilities, and Disciplinary Procedures

1. Preamble
The students, faculty, and staff of Central Michigan University constitute an academic community which is committed to the preservation, communication, and discovery of knowledge, and to the active pursuit of truth. Consistent with this purpose, the University recognizes its obligation to afford each student the opportunity to develop his or her educational potential while retaining free exercise of rights and freedoms as a citizen. Such opportunity should be limited only by the necessity of insuring equality of opportunity to all students, and by the corollary requirement of orderly operation of the educational processes. Each member of the Central Michigan University community assumes an obligation regarding self conduct to act in a manner consistent with a respect for the rights of others and with the University’s function as an educational institution. As guides for individual and group actions within this community, the University affirms the following general principles of conduct. These principles serve as the basis for regulations concerning student conduct.

1.1 The community requires a system of order supportive of the educational process which is the purpose of the University. Primary responsibility for preserving the system of order rests upon the individuals making up the community. Each individual must accept responsibility for his or her 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.

1.3 The educational function depends upon honesty, integrity, and respect for truth. Any action not consistent with these principles is unacceptable.

1.4 As part of the democratic tradition, members of the community should be free to study and act upon social issues, including issues affecting the University. Each person ought to learn and practice the art of thoughtfully examining controversial issues, expressing views individually and as a group member responsibly, and in a manner that is consistent with the educational purpose of the University.

1.5 The University community recognizes the need for the development of personal ethics and philosophies. The members of this community should be committed to broad personal growth and development in society, realizing that each individual has both the freedom and obligation to make ethical choices and to accept the attendant responsibilities.

2. Student Rights
Free inquiry and free expression are essential attributes of a community of scholars. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus generally, and in the community at large. The responsibility to secure and respect general conditions conducive to the freedom to learn is shared by all members of the University community. Students should strive to develop the capacity for critical judgment and the ability to engage in a sustained and independent search for truth, while endeavoring to exercise their freedom with maturity and responsibility. As students undertake to fulfill the obligations and duties outlined in this document, the University community of which they are a part undertakes to respect the basic freedoms of students.

2.1 Rights of Students
In recognition of students’ rights and dignity as members of the University community, Central Michigan University is committed to supporting the following principles and to protecting those rights guaranteed by the Constitution, the laws of the United States and the State of Michigan, and the policies adopted by the Board of Trustees.

2.1.1 Students have the right to free inquiry, expression and association.

2.1.2 Students have the right to editorial freedom in student publications and other student media, e.g. CM Life, Framework, WMHW, MHTV.

2.1.3 Students have the right to representation on the appropriate, designated bodies.

2.1.4 Students accused of misconduct or of violating University policy have the right to have a determination of their violation or non-violation in accordance with University procedures.

2.1.5 Students have the right to protection against improper disclosure of their student records.

2.1.6 Students have the right of access to their personal educational records.

2.1.7 Students have the right to access all policies, rules and decisions concerning their continued enrollment, and to the required course materials and facilities necessary to pursue their studies.

2.1.8 Students have the right to educational programs that meet the objectives of the master syllabus, to teaching consistent with those objectives, and to a learning environment that encourages the students’ engagement with their education.

2.1.9 Students have the right to be informed by the faculty near the beginning of each course about course requirements, evaluation procedures, and evaluation criteria to be used, and the right to expect that those criteria be employed. Faculty have the authority to change a course syllabus after the beginning of the semester and are expected to inform students of these changes in a timely manner.

2.1.10 Students have the right to take reasoned exception to the data or views offered in any course of study; they are, however, responsible for learning the content of any course of study for which they are enrolled.

2.1.11 Students have the right to be evaluated solely on relevant academic criteria and to have protection against arbitrary or capricious academic evaluation as described in the “Grade Grievance Policy” in the University Bulletin.

2.1.12 Students have the right to request and receive timely assessment of their academic work by the instructor, or in the case of graduate students by their thesis/dissertation/Plan B committee chairperson and committee members.

2.1.13 Students have the right to request and receive a reasonable and timely review of their grades by the instructor.

2.1.14 Students have the right of complaint about academic matters if they believe their rights have been violated. When not covered by another policy, a complaint is properly filed by presenting the issue first to the faculty member or thesis, doctoral research project or dissertation committee chairperson. If not resolved, the student may take the issue to the department chairperson. If not resolved at this level, the student may take the complaint to the office of the dean of the academic college or the Dean of the College of Graduate Studies.

2.2 Relationships with the University
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.

2.2.1 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 course work 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. As members of the local community, students are expected to cooperate with law enforcement agencies.

2.5 Confidentiality of Information

All information about students’ views, beliefs, and political associations which members of the University acquire in the course of their work as teachers, administrators, advisors, 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. All misconduct of students, except that governed by the Dean of the College of Graduate Studies, is reported to the Dean of Students or to the persons designated by the Dean to receive such reports.

3.1.2 The University shall take disciplinary action in cases concerning a student’s actions or offenses occurring within or affecting people on property within the physical boundaries of Central Michigan University, on or affecting University owned or controlled property, or when the student is in attendance at a University sponsored event, or when the interests of the University as a community, are clearly involved. Only where the health and safety of members of this community, are clearly involved shall the special authority of the University be asserted in other cases.

Students subject to the provisions of this Code are defined as all persons who have enrolled at the University, either full-time or part-time, pursuing undergraduate, graduate, or non-degree studies. Persons who have been enrolled at the University, and who have not withdrawn, are students even when they are not enrolled for a particular term. Students also include persons who have been admitted to the University and who, before their first attendance, participate in activities intended only for prospective students (e.g., orientation, leadership, band, or other camp, athletic training and practices).

Specific Regulations Concerning Student Conduct

3.2 Academic Dishonesty. Written or other work which a student submits in a course, shall be the product of his/her own efforts. Plagiarism, cheating, and all other forms of academic dishonesty are prohibited to students are expected to follow the ethical and professional standards associated with their programs and academic courses. Copies of the Policy on Academic Integrity may be accessed at www.otl.cmich.edu

3.2.1 False Information. A student shall not furnish, or attempt to furnish, false or misleading information to University officials or on official University records. Further, he/she shall not forge, alter, or misuse the University name, the name of any University employee, documents, records of identification, or attempt to do the same.

3.2.2 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.

3.2.3 Disruptive Behavior During Class: A student shall not obstruct, disrupt or interfere, or attempt to disrupt or interfere with another student’s right to study, learn, participate, or a teacher’s right to teach during a class. This includes but is not limited to such behaviors as talking at inappropriate times, drawing unwarranted attention to him or herself, engaging in loud or distracting behaviors, or refusing to leave a classroom when ordered to do so.

3.2.4 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.

3.2.5 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.

3.2.6 Threat/Endangerment Assault/Sexual Assault. A student shall take no action which threatens or endangers the safety, health, life, or property of any person, nor shall a student make any threat of such action. This includes actions commonly understood to constitute assault, battery, sexual assault, or 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."

3.2.7 Self-injurious Behavior Attempted suicide. 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 threat of such action. This includes actions commonly understood to constitute assault, battery, sexual assault, or 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 Theft. A student shall not appropriate for the student’s own use, sale, or other disposition, property not the student’s own without consent of the owner or the person legally responsible for it. This includes embezzlement, misappropriation and/or theft of university and/or student organizational resources and theft of personal information.

3.2.9 Property Damage. A student shall take no action which damages or tends to damage property not the student’s own.
3.2.11 Disorderly Conduct. A student shall not act as a disorderly person or engage in disorderly conduct or disturb the peace, as defined by state statute or local ordinance. This includes acts of indecent exposure or lewd conduct.

3.2.12 Controlled Substances. A student shall not possess, use, manufacture, produce, or distribute, or aid in the use, manufacture, production, or distribution of, any controlled substance except as expressly permitted by law and university policy. Violation of the Residence Life Alcohol and Controlled Substances Policy is a violation of this section. Controlled substances are defined in the Controlled Substances Act of 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. Violation of the Residence Life Alcohol & Controlled Substances Policy is a violation of this section.

3.2.14 Firearms/Explosives/Weapons. A student shall not possess or use firearms, explosives (including fireworks), dangerous chemicals, weapons, knives or items that forcibly eject projectiles (including BB, pellet and air soft guns), and may be injurious to others, except as part of an approved university activity and under the supervision of a university official. Firearms (including BB, pellet and air soft guns) may not be stored in university residences. Firearms used for hunting must be properly registered with the CMU Police Department and stored in compliance with University regulations.

3.2.15 Complying with University Agents. A student shall comply with the directions of University agents acting in the performance of their regular or delegated duties and must identify him self or her self to these agents upon request.

3.2.16 Payment of Fines/Restitution. A student shall pay fines or restitution levied by a proper hearing body or University authority by the deadline established.

3.2.17 Misuse of Buildings/Facilities/Services. A student must observe rules and regulations concerning the use of campus buildings and other University owned or operated facilities, vehicles, equipment and services.

3.2.18 Computer Abuse. A student shall not abuse university computer time or equipment. Abuse includes but is not limited to: unauthorized entry or transfer of a file, unauthorized downloading of copyrighted info, unauthorized use of another individual's identification and password; use of computing facilities to interfere with the work of a student, faculty members or university officials; or use of computing facilities to interfere with normal operation of the university. A student shall adhere to the rules and practices promulgated by the University Office of Information Technology (www.oit.cmich.edu).

3.2.19 Hazing/Harassment/Stalking. A student shall not haze, harass or stalk any person or group of persons. Telephone harassment, e-mail or computer harassment, stalking, racial and sexual harassment are included under this policy.

3.2.20 Civil Disorder. A student shall not participate in a riot or civil disorder, which is defined as five or more persons, acting in concert, who intentionally or recklessly cause or create a serious risk of causing public terror or alarm.

3.2.21 Aiding Civil Disorder. A student shall not, intending to cause or aid or abet the institution or maintenance of a riot or civil disorder, act or engage in conduct which urges other persons to commit acts of unlawful force or violence or the unlawful burning or destroying of property or the unlawful interference with a police officer, peace officer, fireman or member of the Michigan National Guard or any unit of the armed services officially assigned to civil disorder duty in the lawful performance of his/her duty.

3.2.22 Participation in Riot. A student shall not assemble or act in concert with four or more persons for the purpose of engaging in conduct which creates a serious risk of a riot or civil disorder or be present at an assembly that either has or develops such a purpose and remain there after an order has been given to disperse.

3.2.23 Violation of Injunction. A student shall not violate the terms of any injunction regulating conduct in Isabella county or the terms of the Mt. Pleasant Nuisance Party Ordinance during and as part of a riot or civil disorder.

3.2.24 Discrimination. Violation of the CMU Nondiscrimination Policy or the Equal Opportunity and Affirmative Action protocol shall be treated as an offense under these regulations.

3.2.25 Violations by Registered Student Organizations. Violation by Registered Student Organizations of these regulations, and other rules pertaining to Registered Student Organizations as outlined in the Student Organization Operational Guide may be treated as an offense under these regulations.

3.2.26 Violation of Residence Hall Rules. Violation of "Residence Hall Rules" may be treated as an offense under these regulations.

3.2.27 Collusion. A student who shall with any one or more persons enter into a combination or agreement, expressed or implied, to commit a violation of any of these regulations, is in violation of the regulation. Students are responsible for the actions of their guests while present on CMU property or at university sponsored activities.

3.2.28 Aiding/Abetting. A student implicated in the violation of any regulation in this document, whether he or she directly commits the act constituting the violation or procedures in connection with it, or aids or abets in its commission, may be treated under the regulations as if he or she had directly committed such violation.

3.2.29 Violation of Federal/State/Local Law. Violation of federal, state or local law in a manner which affects the University shall be treated as an offense under these regulations.

3.2.32 Violation of University Regulations. Violation of other university regulations, policies or established procedures may be treated as an offense under these regulations.

4. Official University Sanctions

4.1 Sanctions

Sanctions which may be imposed for violation of University regulations include the following:

4.1.1 Reprimand. A written reprimand, including the possibility of more severe disciplinary sanctions in the event of the finding of a subsequent violation of University regulations within a stated period of time.

4.1.2 University or Community Service. Required work or other service to be provided to the University or other organization within a specified time. The person or body imposing this sanction may impose another allowed sanction as an alternative if the specified service is not completed within the time stipulated, and may impose additional sanctions.

4.1.3 Restitution. Reimbursement for defacement, damage to, or misappropriation of property. The person or body imposing this sanction may impose another allowed sanction as an alternative if restitution is not made within the time specified and may impose additional sanctions.

4.1.4 Fines. A fine not to exceed $1,000 may be levied. Failure to pay a fine in the time limit prescribed results in further disciplinary action.

4.1.5 Removal from University Housing. Cancellation of contract and requirement to vacate university housing within a specified period of time.

4.1.6 Campus Restrictions. Limitations on the times and/or places where a student may be present on campus.

4.1.7 Educational Programs. Participation in educational programs, i.e., workshops, seminars, or other educational activities may be required. The person or body imposing this sanction may impose another allowed sanction as an alternative if the specified program is not completed within the time stipulated and may impose additional sanctions.

4.1.8 Revocation of the Privilege of being a Registered Student Organization.

4.1.9 Disciplinary Probation. Subjected to a period of critical examination and evaluation of behavior. In addition to any of the sanctions set forth above, the student or organization may be placed on probation for a stated period. Placement on probation may include additional restrictions or requirements, not limited to the following:

a) Withdrawing the privilege of campus registration of a motor vehicle,
b) Withdrawing the privilege of membership in a campus organization,
c) Withdrawing the privilege of holding office in a campus organization,
d) Withdrawing the privilege of representing the University in any inter-University event,
e) Requirement to complete a specified number of credit hours with a specific grade point average during the current or subsequent academic session.
5.1.1 A charge may be made to the Conduct Proceedings Officer by any

4.4.13 Violation of the terms of any injunction regulating conduct in Isabella

4.4.12 Violations of Sections 3.2.7 (Threat/Endangerment/Assault/Sexual

4.4.10 Urging other persons to commit unlawful acts during a riot or civil

4.4.9 Possession of a firearm or any other dangerous weapon as described

4.4.8 Possession of a firearm or any other dangerous weapon as described

4.4.7 Sale or distribution of, or aiding or assisting in the sale or distribution of,

4.4.6 Administering or causing to be administered to any person

4.4.5 Violence against persons which constitutes sexual assault.

4.4.4 Violence against persons which results in bodily injury requiring

5.1.2 One or more Conduct Proceedings Officers shall be appointed by

5.1.12 Dismissal. Permanent termination of student status.

5.1.10 Suspension/Dismissal from an Academic Program. Exclusion

4.4.11 Being present at a riot or civil disorder after an order has been given
disperse.

4.4.10 Urging other persons to commit unlawful acts during a riot or civil
disorder, as described in 3.2.21.

5.1.1 A charge may be made to the Conduct Proceedings Officer by any

5.1.12 Dismissal. Permanent termination of student status.

4.4.8 Possession of a firearm or any other dangerous weapon as described

5.1.7 If the student admits to the violation, the Conduct Proceedings Officer

5.1.4 If notified by either United States mail or by University e-mail, the

5.1.3 If, from the investigation, the Conduct Proceedings Officer determines

5.1.1 If the student admits to the violation, the Conduct Proceedings Officer

5.1.5 If the student chooses to discuss the matter, the Conduct Proceedings

5.1.6 If the charge is against a graduate student for a violation of the

5.1.7.1 If the student admits to the violation, the Conduct Proceedings Officer

5.1.7.2 The student charged or the person or group who first brought the

5.1.2 One or more Conduct Proceedings Officers shall be appointed by

5.1.12 Dismissal. Permanent termination of student status.

5.1.1 A charge may be made to the Conduct Proceedings Officer by any

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5.1.1 A charge may be made to the Conduct Proceedings Officer by any

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5.1.8 **Student Does Not Admit Violation**

After discussion with the student, the Conduct Proceedings Officer may determine that the matter requires no further action. The Conduct Proceedings Officer will refer the matter for hearing if:

5.1.8.1 The student denies the charge and the Conduct Proceedings Officer determines the matter may be reason for discipline.

5.1.8.2 The student chooses not to discuss the matter at the discussion offered by the Conduct Proceedings Officer. The student will be notified of the date and time of the hearing.

5.1.9 **Alternative Resolution**

5.1.9.1 **Mutual Settlement.** In lieu of referral to a hearing, the Conduct Proceedings Officer may offer or accept mutual settlements of any charged violations under this code. Settlements shall be in writing stating the conditions of the agreement and any sanctions imposed. Agreements will be signed by the student being charged and the Proceedings Officer.

Cases not settled in a timely manner shall proceed to a hearing. Mutual settlements may not be appealed.

5.1.9.2 **Counseling.** In lieu of, or in addition to, a sanction or referral to a hearing the Conduct Proceedings Officer may refer the student for psychological counseling.

5.1.9.3 **Behavioral Contract.** In lieu of, or in addition to, a sanction or referral to a hearing, the Conduct Proceedings Officer may arrange a behavioral contract with the student. A behavioral contract is a mutually acceptable agreement between the University and a student that specifies certain behavior with which the student must comply, and specifies automatic sanctions which may be imposed if the contract is broken. If the contract is broken, as determined by a finding of fact under procedures set forth in Article 5 herein, the student may be suspended from the University as determined by the Conduct Proceedings Officer. In cases where suspension is automatic under the terms of a behavioral contract, a hearing to determine if the contract has been broken will be on fact only.

5.1.9.4 **Referral to Behavioral Evaluation Team.** In lieu of referral to a hearing, the Conduct Proceedings Officer and the student may agree to referral to a process provided by the Behavior Evaluation Team. This option is available in situations where the alleged conduct of the student appears to be related to a mental disorder or emotional problem.

5.2 **Hearings**

There are two hearing forums: The University Hearing Officer and the University Hearing Body. The Conduct Proceedings Officer will assign a case to one of these forums, except that in cases where there is potential for a sanction of suspension or dismissal, the student may choose which hearing forum will hear the case. The student will have two (2) business days from the date of the meeting with the Conduct Proceedings Officer to make a final choice in writing to the Conduct Proceedings Officer. No such timely choice is made, the Conduct Proceedings Officer will designate whether the case will be heard by a Hearing Officer or Hearing Body. The student will be notified of the time and date of the hearing.

5.2.1 **University Hearing Officer**

5.2.1.1 One or more University Hearing Officers will be appointed by the President or the President's designee and must participate in the appropriate training sessions regarding the Code of Student Rights, Responsibilities and Disciplinary Proceedings.

5.2.1.2 The University Hearing Officer will be assigned by the President or the President's designee to hear the case.

5.2.1.3 The University Hearing Officer, based on the information presented at the hearing, determines whether the student charged violated the student conduct regulations, and sets the sanction, when applicable. Failure to complete the terms of the sanction may result in suspension from the university as determined by the Conduct Proceedings Officer. Certain violations have automatic sanctions imposed according to Section 4.4. In such cases, the University Hearing Officer will decide if a violation has occurred and, if so, the terms of a mandatory suspension.

5.2.2 **University Hearing Body**

5.2.2.1 The University Hearing Body consists of one University Hearing Officer and two students.

5.2.2.2 The students will be selected from a pool of students who are selected by the President or the President's designee in consultation with Student Government Association and must participate in the appropriate training sessions regarding the Code of Student Rights, Responsibilities and Disciplinary Proceedings.

5.2.2.3 The University Hearing Body, based upon the information presented at the hearing, determines whether the student charged violated student conduct regulations, and sets the sanction, when applicable. Failure to complete the terms of the sanction may result in suspension from the university as determined by the Conduct Proceedings Officer. Certain violations have automatic sanctions imposed according to Section 4.4. In such cases, the University Hearing Body will decide if a violation has occurred and, if so, the terms of a mandatory suspension.

5.2.3 **Hearing Procedures**

5.2.3.1 In all disciplinary hearings, the burden of proof rests with the Conduct Proceedings Officer, who must prove by a preponderance of evidence that a violation has occurred.

5.2.3.2 The student charged may have an advisor of the student's choice present at the hearing. If the student's advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor's role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

5.2.3.3 A record of the hearing, made by tape recorder, will be kept by the Conduct Proceedings Officer at least until the appeal time is exhausted. If either the University or the student requests another type of record of the hearing be made, this may be done at the cost of the requesting party provided the type of recording does not interfere with the hearing.

5.2.3.4 A University Hearing Officer presides at all hearings.

5.2.3.5 Procedures at hearings will be communicated to the student charged at least twenty-four (24) hours before the hearing.

5.2.3.6 The Hearing Officer or Hearing Body will issue a written decision within three (3) business days stating if a violation has been found, what facts support this finding, and the sanction to be imposed if a violation has been found.

5.2.3.7 A copy of a decision by the University Hearing Body or University Hearing Officer will be mailed to the student within two (2) business days from the date the decision is made. The Conduct Proceedings Officer will coordinate procedures for communicating the decision.

5.3 **Complainant's Rights**

Central Michigan University recognizes that complainants have rights which need to be protected as well as those of the person who is cited.

5.3.1 The complainant has the right to have a person of his or her choice accompany him or her throughout the disciplinary hearing.

5.3.2 The complainant has the right to remain present during any disciplinary or appeal hearing.

5.3.3 The complainant has the right to submit an "impact statement" and to suggest an appropriate sanction if the person cited is found in violation of the Code of Student Rights, Responsibilities and Disciplinary Procedures.

5.3.4 The complainant has the right to be informed in a timely manner of the outcome of the hearing regarding the findings and the sanction.

5.3.5 The complainant has the right to appeal either the findings or the sanction.

5.3.6 In cases involving sexual assault, the complainant has the right not to have his or her irrelevant past sexual history discussed during the hearing.
5.4 Appeals

5.4.1 The following matters may be appealed to the Appeals Board:

5.4.1.1 The decision of a University Hearing Body or a University Hearing Officer as provided in Section 5.2. The appeal may be as to the facts found or the sanction set or both. If the sanction is automatic, then the appeal may only be made as to the findings, or the terms of a suspension. The appeals board may not reduce the sanction below the minimum imposed by Section 4.4 or by the terms of behavioral contracts or other disciplinary actions in which automatic sanctions are specified.

5.4.1.2 The sanction set by the Conduct Proceedings Officer after admission of violation by the student. Imposition of any automatic sanction after such an admission may not be appealed however, the terms or conditions of the sanction may be appealed. See Section 5.1.7.2 for more information regarding this type of appeal.

5.4.2 The Appeals Board consists of the Student Government Association President or designee, the Chairperson of the Academic Senate or designee, and the Dean of Students or designee and must participate in the appropriate training sessions regarding the Code of Student Rights, Responsibilities and Disciplinary Proceedings.

5.4.3 An appeal to the Appeals Board may be made by the student involved, by the person or group who first brought the charge, or by the University.

5.4.4 An appeal is timely only if taken within five (5) business days of the decision appealed. An appeal not made within the time limit will not be heard unless an exception is made by the President or the President's designee.

5.4.5 An appeal is made by submitting a written statement of appeal to the Conduct Proceedings Officer within the time limit. The written statement of appeal must state: the name of the person appealing, the basis of the appeal, the person or group making the decision from which the appeal is made, whether a decision as to fact or sanction or both is appealed, and the remedy which the person appealing is requesting from the Appeals Board.

5.4.6 The student charged may have an advisor of the student's choice present at the hearing of the appeal. If the student's advisor is an attorney, the student must notify the Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor's role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

5.4.7 The Conduct Proceedings Officer is responsible for notifying members of the Appeals Board of the appeal and for setting a time and place for holding a meeting of the Appeals Board. The Conduct Proceedings Officer will provide notice of time and place of the meeting of the Appeals Board to the student(s) charged, the charging party, and other University persons deemed appropriate by the Conduct Proceedings Officer.

5.4.8 The Conduct Proceedings Officer will assemble the documentary evidence introduced at the hearing, the record made of the hearing, and the administrative contact history made in connection with the matter and will make these materials available to the Appeals Board.

5.4.9 The Appeals Board may establish its own procedure for conducting any appeal appropriate to the circumstances designed to achieve fairness to the student charged as well as the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.

5.4.10 The Appeals Board makes its determination based solely on the record of the student's hearing, facts that are presented to the Appeals Board, and arguments before the Appeals Board.

5.4.11 The purpose of the Appeals Board is to decide if the findings and/or the sanction of the Hearing Body were so incorrect that the decision should be changed. It is not the purpose of the Appeals Board to substitute its judgment for that of the Hearing Officer or Body. It is not the purpose of the Appeals Board to decide if it would have reached the same decision had it been the Hearing Officer or Body. It is not the function of the Appeals Board to reheat the charges against the student; it is an appeal of the findings and/or the sanction of the Conduct Proceedings Officer, Hearing Officer or Body only as requested by the person or persons making the appeal. The Appeals Board may:

5.4.11.1 Find that there are not sufficient facts presented to warrant the findings of fact made at the original hearing and may set aside the finding or determine the facts differently.

5.4.11.2 Order that a new hearing be held.

5.4.11.3 Change the sanction.

5.4.11.4 Provide such further and additional relief or changes as dictated by fairness to the student and to the interests protected by the Central Michigan University Code of Student Rights, Responsibilities and Disciplinary Procedures.

5.4.12 The Appeals Board must hear the appeal within fifteen (15) business days from the date the appeal is made in writing and delivered to the Conduct Proceedings Officer.

5.4.13 A decision of the Appeals Board is final except that a decision to suspend for more than one week or to dismiss a student is subject to discretionary review by the Provost or the President (see 5.4.14). Any student responding to a charge under these procedures, or any person bringing charges under these procedures, or the Administration, may make a written application to the Provost to review such a decision made by the Appeals Board. The application must be received in the Office of the Provost within five (5) business days after the date of the Appeals Board decision. Failure to make application for review within the time limit ends the right to make application for review unless the time limit is extended by the Provost. The application for review must contain the following information:

a) Name of the student(s) charged in the proceeding in which the Appeals Board has rendered a decision.

b) Name, address, and telephone number of the person making application for review.

c) A copy of the Appeals Board decision involved.

d) A statement as to what portion(s) of the Appeals Board decision the applicant wishes reviewed, and the reason(s) why the person making application for review considers the decision to be capricious, or the procedures followed to be fundamentally unfair.

e) A statement of the relief requested from the Provost by the person making application for review.

If the Provost elects to review a decision of the Appeals Board, either in part or entirely, the Provost may establish whatever procedures are deemed appropriate and consistent with fairness to govern the review.

5.4.14 The University reserves the right for the President or the President's designee to impose a different sanction after a determination of violation, than the sanction imposed by the Conduct Proceedings Officer, Hearing Officer, Hearing Body, Appeals Board, or others under these procedures.

5.5 Charges Involving Student Organizations

All notices referred to in this document, when involving a Registered Student Organization, shall be sent to the president of the organization, at his or her last address on file with the Office of the Registrar, unless another representative of the organization is designated by the organization to receive such notices. When a Registered Student Organization is charged with a violation, the president of the organization shall represent the organization in the process described in Section 5, unless the Registered Student Organization designates some other representative. The representative of the student organization must be a registered student at Central Michigan University, and must be a regular member of that organization.

5.6 Changes in Procedures

The procedures set forth herein shall apply throughout the calendar year. A University Hearing Officer may be appointed by the Conduct Proceedings Officer to hear a case at times when a University Hearing Body cannot be readily assembled such as when students are not in attendance at regular sessions, during exam week, summer sessions.

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 the Office of Student Rights and Responsibilities.
6. Student Hearing Procedures for Graduate Students Charged with Violating the Policy on Academic Integrity

6.1 Intake Conduct Proceedings Officer

6.1.1 A charge may be made to the Dean of the College of Graduate Studies by any member of the university community stating that a student has violated Section 3.2.1 of Specific Regulations Concerning Student Conduct.

6.1.2 One or more Conduct Proceedings Officers shall be appointed by the Dean of the College of Graduate Studies and must participate in the appropriate training sessions regarding the Code of Conduct. The Conduct Proceedings Officer will make, or cause to be made, an investigation of the charge.

6.1.3 If, from the investigation, the Conduct Proceedings Officer determines the matter may be reason for discipline under the policy on academic integrity, the Conduct Proceedings Officer will notify the student that a charge has been made and will offer the student an opportunity to discuss the matter.

If notified by mail, the notice will be mailed to the last address for the student on file with the University Office of the Registrar. The notice will be deemed received two (2) days following the date the notice is posted at facilities of the United States Post Office. In the absence of mailing, personal delivery to the student cited, or delivery to the last address on file in the Office of the Registrar constitutes proper notice. If personal delivery to the student or delivery to the last address is used, the date notice is so delivered shall be deemed the date the notice if received.

The student will have two (2) days from the date of receipt in which to respond to this notice. If the student has not responded at the end of this two day period, the Conduct Proceedings Officer will set up a hearing, and cause to be delivered to the student a copy of this document.

6.1.4 The student may bring an advisor of the student’s choice to the discussion with the Conduct Proceedings Officer.

6.1.5 If the student chooses to discuss the matter, the Conduct Proceedings Officer will at the discussion inform the student of the charge(s) and the regulation(s) which are alleged to have been violated and will explain to the student the process outlined in this document.

6.1.6 Student Admits Violation

6.1.6.1 If the student admits to the violation, the Conduct Proceedings Officer may issue a sanction.

6.1.6.2 The student charged or the person or group who first brought the charge may appeal the sanction, by a letter delivered to the Dean of the College of Graduate Studies within five (5) business days after the Dean has set the sanction.

Since admission of the violation by the student is a prerequisite to the Dean acting under this section, such an appeal will only be as to the appropriateness of the sanction and not the fact of whether the violation occurred.

6.1.7 Student Does Not Admit Violation

After discussion with the student, the Conduct Proceedings Officer may determine that the matter requires no further action. The Conduct Proceedings Officer will refer the matter for hearing if:

- The student denies the charge and the Conduct Proceedings Officer determines the matter may be reason for discipline
- The student chooses not to discuss the matter at the discussion offered by the Conduct Proceedings Officer. The student will be notified of the date and time of the hearing.

6.1.8 Alternative Resolution

6.1.8.1 Mutual Settlement. In lieu of referral to a hearing, the Conduct Proceedings Officer may offer or accept mutual settlements of any charged violations under this code. Settlements shall be in writing stating the conditions of the agreement and any sanctions imposed. Agreements will be signed by the student being charged and the Proceedings Officer.

Cases not settled in a timely manner shall proceed to a hearing. Mutual settlements may not be appealed.

6.2 Hearings

6.2.1 There are two hearing forums: The Graduate Studies Hearing Officer and the Graduate Studies Hearing Body. In cases where there is potential for a sanction of suspension or dismissal, the student may choose which hearing forum will hear the case.

The student will have two (2) business days from the date of the meeting with the Conduct Proceedings Officer to make a final choice in writing to the Conduct Proceedings Officer. If no such timely choice is made, the Conduct Proceedings Officer will designate whether the case will be heard by a Graduate Studies Hearing Officer or Graduate Studies Hearing Body. The student will be notified of the time and date of the hearing.

6.2.1.1 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 on the evidence presented at the hearing, determines whether the student charged violated student conduct regulations, and sets the sanction, when applicable.

6.2.3 Hearing Procedures

6.2.3.1 In all disciplinary hearings, the burden of proof rests with the Conduct Proceedings Officer, who must prove by a preponderance of evidence that a violation has occurred.

6.2.3.2 The student charged may have an advisor of the student’s choice present at the hearing. If the student’s advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

6.2.3.3 A record of the hearing, made by tape recorder, will be kept by the Conduct Proceedings Officer, at least until the appeal time is exhausted. If either the University or the student requests another type of record of the hearing be made, this may be done at the cost of the requesting party provided the type of recording does not interfere with the hearing.

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 charged at least twenty-four (24) hours before the hearing.

6.2.3.6 The Graduate Studies Hearing Body or Graduate Studies Hearing Officer will issue a written decision stating if a violation has been found, what facts support this finding, and the sanction to be imposed if a violation has been found.

6.2.3.7 A copy of a decision by the Graduate Studies Hearing 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 Conduct Proceedings Officer will coordinate procedures for communicating the decision.

6.3 Instructor’s Rights

Central Michigan University recognizes that instructors have rights which need to be protected as well as those of the person who is cited.

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.
6.4 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.

6.4.1.2 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.

6.4.1.3 The sanction set by the Conduct Proceedings Officer after admission of violation by the student. See Section 6.1.6 for more information regarding this type of appeal.

6.4.1.4 An appeal to the Graduate Studies Appeals Board may be made by the student involved, by the person or group who first brought the charge, or by the University.

6.4.1.5 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.

6.4.1.6 An appeal is made by submitting a written statement of appeal to the Conduct Proceedings Officer within the time limit. The written statement of appeal must state: the name of the person appealing, the basis of the appeal, the person or group making the decision from which the appeal is made, whether a decision as to fact or sanction or both is appealed, and the remedy which the person appealing is requesting from the Graduate Studies Appeals Board.

6.4.1.7 The student charged may have an advisor of the student’s choice present at the hearing of the appeal. If the student’s advisor is an attorney, the student must notify the Conduct Proceedings Officer of this at least three (3) business days in advance of the hearing. The advisor’s role is limited to providing advice to the student. The advisor is not permitted to ask or answer questions or make oral arguments. Any case presented must be made by the student.

6.4.1.8 The Conduct Proceedings Officer is responsible for notifying members of the Graduate Studies Appeals Board of the appeal and for setting a time and place for holding a meeting of the Graduate Studies Appeals Board. The Conduct Proceedings Officer will provide notice of time and place of the meeting of the Graduate Studies Appeals Board to the student(s) charged, the charging party, and other University persons deemed appropriate by the Conduct Proceedings Officer.

6.4.1.9 The Conduct Proceedings Officer will assemble the documentary evidence introduced at the hearing, the record made of the hearing, and the file made in connection with the matter and will make these materials available to the Graduate Studies Appeals Board.

6.4.1.10 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.

6.4.1.11 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.

6.4.1.12 The Graduate Studies Appeals Board must hear the appeal within fifteen (15) business days from the date the appeal is made in writing and delivered to the Conduct Proceedings Officer.

6.4.1.13 A decision of the Graduate Studies Appeals Board is final except that a decision to suspend or to dismiss a student is subject to discretionary review by the Provost. Any student responding to a charge under these procedures, any person bringing charges under these procedures, or the Administration, may make a written application to the Provost to review a decision made by the Appeals Board. The application must be received in the Office of the Provost within five (5) business days after the date of the Appeals Board decision. Failure to make application for review within the time limit ends the right to make application for review unless the time limit is extended by the Provost. The application for review must contain the following information:

a) Name of the student(s) charged in the proceeding in which the Graduate Studies Appeals Board has rendered a decision.

b) Name, address, and telephone number of the person making application for review.

c) A copy of the Graduate Studies Appeals Board decision involved.

d) A statement as to what portion(s) of the Graduate Studies Appeals Board decision the applicant wishes reviewed, and the reason(s) why the person making application for review considers the decision to be capricious, or the procedures followed to be fundamentally unfair.

e) A statement of the relief requested from the Provost by the person making application for review.

If the Provost elects to review a decision of the Graduate Studies Appeals Board, either in part or entirely, the Provost may establish whatever procedures are deemed appropriate and consistent with fairness to govern the review. The University also reserves the right for the President or the President’s designee to impose a different sanction after a determination of violation, than the sanction imposed by the Conduct Proceedings Officer, Graduate Studies Hearing Officer, Graduate Studies Hearing Body, Graduate Studies Appeals Board, or others under these procedures.

6.5 Changes in Procedures

6.5.1 The procedures set forth herein shall apply throughout the calendar year. A Graduate Studies Hearing Officer may be appointed by the Dean of the Graduate Student Services, or by the Dean of the College of Graduate Studies, to hear a case at any time when a Graduate Studies Hearing Body cannot be readily assembled such as when students are not in attendance at regular sessions, during exam week, summer sessions.

6.5.2 These procedures are subject to change by the President of the University or designee. If any change is deemed necessary, any new procedures shall guarantee a fair hearing with due process.

6.6 Clarifying Processes

Clarifying processes which are consistent with the Hearing Procedures in this Section may be proposed by the College of Graduate Studies.

Office of the Dean of Students, 2007
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